Agricultural Apprenticeships:

Reproducing Traditional Labor Relations in the Alternative Food Movement?

by

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Abstract

Agricultural apprenticeships are an increasingly popular labor relation in which apprentices provide farm labor in exchange for training/education, a stipend, housing, and/or food. Apprenticeships are taking place on small-scale and medium-scale, ecologically-oriented farms typically selling to local or regional markets. These farms are situated within an alternative food movement (AFM) that perpetuates agrarian ideology idealizing farmers but ignoring farmworkers. Given the AFM's inattention to workers, small farms' struggling economic viability, and misconceptions about labor justice on small farms, this research studied how agricultural apprenticeships address social equity. Specifically, this research examined the goals and practices of agricultural apprenticeships in the United States and the extent to which these apprenticeships achieve social justice.

Evaluating twenty-six agricultural apprenticeship programs using grounded theory, this thesis found programs' top goals to be educating about sustainable agriculture and creating new farmers; programs less commonly educate about social justice or aim to create new farmworkers. Apprenticeship practices, including hands-on training, vary considerably and are dependent on individual farms. Few programs formally evaluate host farmers. I assessed programs' goals and practices according to "five faces of oppression": powerlessness, exploitation, marginalization, cultural imperialism, and violence. I found that agricultural apprenticeships impede social justice in numerous ways for apprentices and other farmworkers, such as by excluding apprentices and farmworkers in their development and/or implementation. High variability in how the term agricultural "apprenticeship" is used contributes to apprentices' exploitation. I also explored similarities and differences between today's agricultural apprenticeships, industrialized farm labor relations, pre-modern apprenticeships, and apprenticeships in other industries.

Keywords: apprenticeship, internship, sustainable agriculture, social justice, farm labor relations, small farm, aspiring farmer, oppression

This thesis is dedicated to anyone who desires a more environmentally, economically, *and* socially just food system and is willing to question their own and others' assumptions while thinking critically and taking action to create change.

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Chapter One

Introduction

Do you support local farms and the fresh, nutritious food they have to offer? Maybe you shop at a farmers market in summer or are even a member of a community-supported agriculture (CSA) program? You might only be interested in eating delicious produce, but likely you also feel good about supporting local farmers rather than the industrialized food system that is more focused on profits than the environment or people. Have you given much, if any, thought to the labor that goes into planting, growing, harvesting, and delivering that food to you? Beyond farmers' conditions, have you considered the labor conditions of these small farms?

Certainly I can relate to this depiction. After spending a couple of years working with urban farmers who were clearly economically disadvantaged compared to larger, industrialized farmers, I became enamored with the romantic ideal of family farming and made a cross-country move—leaving my job, partner, and friends behind—to live and apprentice on an organic vegetable farm. I was nervous about my decision, but propelled by a strong belief in stewarding the land to provide healthy food for people. Over the course of several apprenticeships, however, my romanticized vision was slowly chipped away, not because the work or the experience was more difficult than I expected, but because I was often treated as an employee critical to the economic viability of the farm operation, rather than as a trainee whose main role was learning by doing. I saw how the farmers I apprenticed with made environmental and social compromises due to finances. Yet I kept going, believing in the transformative power of an alternative food system.

Agricultural apprenticeships are a newly popular labor relation unique to farms seeking food system change by minimizing the negative environmental, economic, and social impacts of the industrialized food system. These farms are part of the alternative food movement, discussed

in detail in Chapter Two, and typically diversified, small or medium-scale farms selling to local or regional markets. Apprenticeships generally require apprentices' labor in exchange for the knowledge gained through hands-on experience and sometimes a small stipend, housing, food, and/or formal education. They have become more widespread on alternative food movement farms within the last decade or so and are often posited as the best, if not the only, way to learn how to become a sustainable farmer. Many agricultural apprenticeship programs frame themselves as a response to declining numbers of young farmers, but apprentices, scholars, and even farmers have raised concerns about these programs' tension between apprentices' need for educational training and farmers' need for inexpensive workers. Others are bringing awareness to the privileged nature of these positions and the implications this has for apprentices and future farmers alike, given that apprentices tend to be white and in at least some cases, predominantly female (Childs 2015). Leaders of agricultural apprenticeship programs are beginning to convene and collaborate, providing an opportunity for the alternative food movement to confront these tensions in the interest of social equity.

The alternative food movement typically does not advocate beyond improved environmental and animal practices on farms to challenge social practices such as labor inequities, often overlooking worker concerns (Liu 2012). This is despite the food system being the largest employment sector in the U.S. as well as the lowest paid (Food Chain Workers 2016), including farm work which has historically relied on marginalized populations facing little choice but to accept low wages and poor working conditions. This thesis asks: 1) What are the goals of agricultural apprenticeships in the United States?, 2) What are the practices of agricultural apprenticeships in the United States?, and 3) To what extent do the labor relations of agricultural apprenticeships achieve social justice? My research examines the goals and

practices of agricultural apprenticeships in the United States and how these apprenticeships address social justice to better understand how the alternative food movement contributes to labor justice for a more socially equitable food system.

This thesis introduces the alternative food movement and the notion of agrarian idealism that valorizes the family farmer and largely ignores the farmworker. Next, I explain how capitalism transformed food into a commodity and ask how small-scale farms are able to remain economically viable, presenting evidence that family farms can be characterized by labor relations similar to those found on industrialized farms. Because agricultural apprenticeships are situated within the context of farm financial viability, I look at the extent to which apprenticeship programs aim to remedy the tension between farm labor needs and aspiring farmer education, as well as their inclusion or not of social equity in statements of mission, vision, and goals. Next, I explore the practices with which agricultural apprenticeships engage. Finally, I discuss these practices in relation to a framework of social justice that looks at oppression in terms of powerlessness, exploitation, marginalization, cultural imperialism, and violence. I also compare today's agricultural apprenticeships to apprenticeships in other industries, pre-modern apprenticeships, and industrialized farm labor. My methodology and analysis pay particular attention to who creates agricultural apprenticeship programs, for whom they are created, and who participates. The alternative food movement should consider the questions raised by this thesis if advocates hope to envision and achieve a food system that is socially, economically, and environmentally just for everyone.

Chapter Two

Background and Significance

This chapter introduces important concepts related to this thesis research. Given that agricultural apprenticeships occur on farms that identify with the alternative food movement, I present this movement and the aims of "sustainable agriculture." I then situate today's small and medium sized farms within the contradictory frameworks of a capitalist economy resulting in low profit margins and alternative food movement agrarian idealism because this may inform our understanding of contradictions within agricultural apprenticeships. I establish how the commodification of food and the enduring puzzle of small farm viability may also contribute to our understanding of farm labor relations in the U.S. food system. I discuss how alternative farms reproduce some of the inequities evident on industrialized farms. This knowledge guides my analysis of American agricultural apprenticeships, a growing labor relation on small and medium sized, alternative food movement farms, and the extent to which they achieve social justice.

The Alternative Food Movement, Farm Economics, and the Agrarian Ideal

The alternative food movement seeks to remedy the industrialized food system's negative environmental, social, and economic impacts (Allen 2004). Scholars and practitioners disagree, however, on the goals of this movement and the most effective methods for achieving them. "Sustainable agriculture" is one component of the alternative food movement and focuses on agricultural production as a site of food system change. Sustainable agriculture is referred to as sustainable in part because it encourages farmers to engage in more ecologically-conscious food production practices, such as limiting or eliminating the use of synthetic fertilizers and pesticides (ATTRA 2015). Like the alternative food movement overall, the sustainable agriculture movement takes multiple approaches to achieving goals and sometimes disagrees on what the

goals are. The sustainable agriculture movement, and accordingly the alternative food movement of which it is a part, includes U.S. Department of Agriculture (USDA) certified organic farming, non-certified organic farming that meets USDA standards, ecologically-oriented farming that is not completely organic in practice, and everything in between (Guthman 2014). Across this spectrum, some farms may adhere to production and marketing techniques that mimic the industrialized food system but substitute organic for synthetic inputs, while others use more diverse, agroecological practices. This thesis is concerned with farms engaged in a wide variety of sustainable agriculture production practices but that are small or medium in size and typically sell within local or regional markets.

Agricultural production—large or small-scale, industrialized or ecological—operates within a capitalist economic system that demands and drives profit accumulation. All for-profit farmers in a capitalist economy, regardless of their size or production and sales practices, must earn a profit in order to maintain an economically viable business. Agriculture is a sector in which profitability is unstable and has been throughout history (Gray 2013). Today's ecologically-oriented farms that are small and local are at an economic disadvantage to other farms due to their size and non-industrialized production practices. Their small size prohibits efficiencies that can be gained through economies of scale. Industrialized farms also have the advantage of externalizing environmental and social costs that are not accounted for in the prices of their products (Guthman 2014). This makes it difficult for farms who internalize these costs by being more ethically responsible to compete for customers based on price. But the alternative food movement may fail to recognize that internalizing environmental costs by engaging in ecologically-conscious farming does not always equate to internalizing social costs by engaging in socially-conscious farming. As one researcher states clearly, "Despite the veneer of ethical

production, it remains the case that local or small agricultural producers are driven by market dictates and regulatory norms that render their approach to labor relations more or less undistinguishable from those of larger, commodity-oriented, industrial farms" (Gray 2013, 2). It is often the case that sustainable agriculture systems are not evaluated according to a complete range of social sustainability criteria (Bacon et al. 2012). Why might the sustainable agriculture and alternative food movements conflate environmental responsibility and social responsibility on the farms they represent?

Sustainable agriculture advocates support environmentally sound agricultural practices as well as farmer well-being, and environmental, economic, and social practices are often valued in accordance with their contributions to farmers' financial success. Agrarian ideology attributes this success to the hard work of the farmer and describes farming as an independent and familial endeavor (Allen 2004). This attitude is used today to promote alternative farming, bolstering the idea of the family farm as the moral mainstay of a more just food system, while rendering invisible the farmworkers on whose labor farms' success depends. According to Margaret Gray (2013, 2), "the resurgence of interest in healthy food and sustainable agriculture among academic and popular writers has overlooked the role of hired labor in smaller-scale agrifood production." The disadvantages facing small and ecologically-oriented farms, in combination with an agrarian ideology that equates this type of farming with moral superiority, can cause the alternative food movement to ignore or justify environmental, economic, or social practices that are less than ideal.

Farm Labor Relations

"Labor relations" in this research refers to the relationship between management and employees, and the structural conditions shaping this relationship. Agricultural labor relations

within the alternative food movement may be influenced by conditions in the industrialized food system as well as factors unique to alternative food and farming systems. This section depicts some aspects of these labor relations to provide a basis for understanding why it is important to critically examine labor relations on farms, and specifically agricultural apprenticeships taking place on farms that are small or medium in size and sell products locally or regionally.

The question of how to meet labor needs in an agricultural system that treats food as a commodity has been answered in various ways in different historical periods and places. As one scholar explains America's response, "the major policy issue is not how to enhance the upward mobility of immigrant farm workers and their children, it is how U.S. agriculture should gain access to immigrant farm workers" (Martin 2002, 1124). What began with slavery and sharecropping in the American South evolved into the exploitation of various marginalized populations facing discrimination based on their race or ethnicity and limited work options. Throughout this country's history, the agriculture sector has depended on the Chinese, then Japanese, "Indians and Pakistanis, Mexicans, Dust Bowl migrants, and Mexicans again" for the labor force of farms primarily in the western United States (Martin 2002, 1128), but this reliance is also evident in the eastern United States. For example, the guest worker Bracero program that admitted 4.6 million Mexicans to perform agricultural labor between 1942-1964 (Martin 2002), was paralleled in the East by the British West Indies guest worker program (Gray 2013). Today, seventy percent of hired farmworkers and 97 percent of contracted farmworkers are foreign born (Bon Appétit 2011). Agricultural labor in the United States has always depended on the exploitation of workers marginalized by their race.

Farmers within the industrialized (Food Chain Workers Alliance and Solidarity Research Cooperative 2016) and alternative food systems (Crane 2012) rely on the cheap labor of

immigrants. Growers of fruits and nuts, vegetables, and nursery products including flowers employ the most immigrant labor (Martin 2002), as opposed to growers of commodity crops. The small and medium-sized farms that sell locally or regionally and are overall more ecologically cognizant, also hire migrant and immigrant workers (Crane 2012; Gray 2013), despite the tendency to associate this labor force with the industrialized food system. In her comprehensive study of Hudson Valley, New York farms,[1] Margaret Gray (2013) concludes that not only do the farms within the alternative food movement rely on immigrant labor, but farmers in New York actively sought out immigrant workers to take the place of American migrants and locals who were demanding better compensation and work conditions. Characterizations that most would identify with industrialized food production also describe smaller, local food production, including low wages, long hours with no overtime compensation, deteriorating housing, lack of respect, and a new form of exploitation unique to farms at this scale: "paternalistic management practices" (Gray 2013, 5). Immigrant workers may also be hesitant to speak out against unfair employment practices due to their vulnerabilities as undocumented or guest workers. Similar conditions concerning pay, housing, and health issues have been documented on small-scale organic farms across the northeastern United States (Berkey and Schusler 2016) and are not unique to this area. The use of migrant and immigrant workers is one way in which labor relations on farms that identify with the sustainable agriculture movement resemble labor relations on industrialized farms.

Small-scale farms also resemble industrialized farms in the lack of legal protections afforded to farmworkers, with small-scale farms often having fewer labor protections for workers under the law. "Agricultural exceptionalism" is a term used in reference to the many

1. Most of the farmers Gray (2013) interviewed grew fruits and vegetables and were medium-sized by farm sales standards, grossing between $50,000-$249,000.

farmworker exemptions from labor standards in the National Labor Relations Act, Fair Labor Standards Act, the Occupational Safety and Health Act (OSHA), and other labor legislation (Rodman et al. 2016). These exceptions stem from the 1930s appeasement of southern politicians and their landholding constituents, who feared a loss of profits if the black farmworkers they depended on were granted the rights of workers in other industries (Rodman et al. 2016). Many of the already limited protections afforded to farmworkers contain further exemptions for farms that are small in size (Gray 2013; U.S. Department 2008). The potential for negative impact on profits is used as the reasoning behind lower labor standards (Gray 2013). "The upshot is that the farms that are the most idealized by those in the food movement are not required to offer the same labor protections as larger enterprises in the industrial agricultural system" (Gray 2013, 49).

Small farm labor exemptions exist at the federal and state levels. A study of agricultural exceptionalism within state labor laws found that "over two-thirds of the 45 states with their own minimum wage standards exclude some farmworkers from protection" (Rodman et al. 2016, 102). According to the federal Fair Labor Standards Act (FLSA), farms that do not utilize a certain amount of maximum labor (approximately seven employees or less), do not have to pay farmworkers minimum wage (U.S. Department 2008, Rodman et al. 2016).[2] Agricultural employers with fewer than eleven employees are also not always required to meet the same standards for working conditions, such as sanitation standards set forth by the Occupational Safety and Health Act (Mooney and McKeefery 2006). There are also examples of these

2. The FLSA uses "man days" to determine if an agricultural employer must pay minimum wage in a given year, where employers using 500 man days or less "in any calendar quarter of the preceding calendar year" are excepted (U.S. Department 2008). If an employee works for one hour or more in a single day, this constitutes a man day. According to Rodman et al. (2016, 92), this exception effectively applies to farms with "seven or fewer full-time employees."

exceptions at the state level, such as Maine's law that only grants state minimum wage to farmworkers employed on or for farms "with over 300,000 laying birds" (Rodman et al. 2016, 99). A more recent example is California's Overtime for Agricultural Workers Act, which will gradually grant farmworkers the right to overtime pay after forty hours worked in a week by 2022 (Wolf 2016). By contrast, small farms have until 2025 to comply (Wolf 2016). The difficult economics of small-scale farming are used to justify fewer legal protections for farmworkers on both the federal and state levels.

Fewer legal protections for workers on farms that are small in size often means that there are lower standards for farms that are the most labor-intensive. Due to more diversified crop production and limited mechanization, small and medium sized ecologically-conscious farms tend to be more dependent on hand labor than larger or industrialized farms (Pollack 2011; Crane 2012; Gray 2013; Pilgeram 2011; Guthman 2014). Although legal requirements are not necessarily an indication of how workers are actually treated, a study of California certified organic farmers revealed that those farmers with the most farmworker interaction are more likely to oppose the inclusion of social justice criteria in organic standards than those farmers who do not employ farmworkers (Shreck, Getz, and Feenstra 2006). Forty-two percent strongly disagreed and another 14 percent disagreed that organic certification should include social justice standards (Shreck, Getz, and Feenstra 2006). The majority of surveyed farmers were "small-scale in terms of both area farmed and annual sales. Almost three-quarters (73.8%) of respondents farm 50 acres or less, and 64% of the farms reported less than $50,000 in annual sales" (Shreck, Getz, and Feenstra 2006, 443). This study shows that even farmers committed to ecologically-conscious agriculture are not always equally committed to socially equitable agriculture.

Farmers within the alternative food movement have at times actively opposed legislation to help farmworkers. This includes a Senate Bill that would have closed a loophole permitting stoop labor, a leading cause of serious musculoskeletal injury, via hand weeding, even though organic farmers would most likely have been exempted (Getz, Brown, and Shreck 2008). Not only did organic farmers ally with agribusiness to defeat a bill that otherwise was supported, it set a precedent for division between the alternative farming community and the labor movement. In another instance of prioritizing the needs of farmers over farmworkers, synthetic sulfur, a leading cause of worker injury and poisoning in California, was permitted under organic standards because fruit growers were concerned it would be too difficult to produce grapes without it (Guthman 2014; Shreck, Getz, and Feenstra 2006). Farmers within a movement that says it challenges the industrialized food system are still inclined to put profits before people when it comes to farmworker well-being.

It is important to recognize that farmworker wages are a business expense for all farmers. Amidst the uncertainty surrounding many factors of agricultural production, labor is one of the few expenses over which farmers have ultimate control (Rosenbaum 2001; Gray 2013). As an economist funded by Southern SARE (Sustainable Agriculture Research & Education) said when speaking of farm labor markets, better compensation packages would attract more workers but that would "erode farm profits" (Pollack 2011). Gray (2013) situates this fact within the Hudson Valley's agricultural history, explaining that farmers developed resentment toward workers when economic conditions forced them to offer higher wages. Today, farmers' inability to pay living wages, provide benefits, and even allow collective bargaining rights is often attributed to these measures' financial burden.

Positing living wages and other benefits and rights as a financial burden for farmers makes them seem unnecessary, while insinuating that increased farm profits leads to increased wages for farmworkers. There is no data showing that this is necessarily the case. In fact, data for California's food retail industry shows that despite growing revenue, employment, and labor productivity, median wages decreased by 12.6 percent between 1999 and 2010, corresponding to an 11 percent increase in "the proportion of food retail workers earning poverty wages" (Jayaraman 2014, 5). On the other hand, if higher profits do result in better wages and working conditions for farmworkers, then larger farms may be better positioned to grant these rights. In Shreck, Getz, and Feenstra's (2006) survey of certified organic farmers in California, larger farms, rather than smaller farms, were found to provide their workers with more insurance, paid vacation, pension, and sick leave benefits. According to Allen et al. (2003, 67), "Workers themselves [may] prefer to work for larger farmers when they can thus get benefits and sometimes better wages." While the alternative food movement posits the small, local, family farm as a challenge to the industrialized farm, research indicates that small farms may in fact replicate many of the labor problems present in the industrialized system.

Although the alternative food movement has had the effect of altering farmers' production costs in order to improve environmental impact, the treatment of animals, or other issues, externalizing labor costs through the use of a cheap, marginalized labor force continues to remain largely unchallenged by the movement (Gray 2013). This is especially dangerous when combined with a romanticized vision of small, local farms, because agrarian ideology obscures farmworkers while elevating the righteousness of farmers. Farmers' morality is also emphasized in discourse that accentuates thin profit margins in any discussion of farmer decision-making, simultaneously de-valuing the needs of farmworkers. David Harvey (1996, 346-7) asserts that

"many social movements in the twentieth century have foundered on the belief that because their cause is just they cannot possibly themselves behave unjustly." Unfortunately, advocates for an alternative food system have chosen to prioritize "the interests of farmers, who directly benefit from farmworkers' low wages and limited rights, [resulting in] many sustainable agriculture organizations refrain[ing] from advocating for worker protections" (Harrison 2011, 170). Organizations that once advocated for farmworker justice shifted course beginning in the 1980s to focus on developing new entrepreneurial initiatives (benefitting farmers) rather than opposing the political-economic structures undergirding issues of social inequality within the food system (Allen et al. 2003). Structural inequality is built into agricultural labor relations in the United States through a reliance on marginalized immigrant and migrant labor and a lack of legal protections for farmworkers, and is bolstered by agrarian ideology that depicts small-scale farmers as virtuous and independent. Given these conditions, it is important to critically examine a newly popular labor relation within the alternative food movement: the agricultural apprenticeship.

Commodity Food Production and the Agrarian Question

The capitalist economic system treats food as a commodity that is acquired through the marketplace. Access to food has not always been dependent on a system of buying and selling. Instead, this change occurred in conjunction with the rise of capitalism itself. Capitalism began to take form in sixteenth century England when traditional conceptions of property and its management started to dramatically shift (Wood 2000). Under feudalism, self-sufficient peasant producers were subject to coercive measures by people or entities who could use their superior military, judicial, or political power, but they were also permitted to use communal land and granted use-rights to private land to meet their subsistence needs. Under capitalism, property

was deemed physically—through enclosure—and legally off limits and coercion became enshrined in the economic system itself (Wood 2000). Landlords demanded monetary payments from peasants who were forced to sell that product which most differentiated them from the urban population—food—turning them into commodity farmers (Kautsky 1988).[3] Landlords and peasants alike were incentivized to maximize agricultural output (Wood 2000). Those who were the most productive were successful in keeping their land and acquiring more, while less productive and less profitable peasants were forced to abandon cultivation even on their own property and sell their labor power for a wage (Wood 2000). For the first time, peasants were not in control of the means of production—land—necessary to their very survival. And so it was put in motion that "Once market imperatives set the terms of social reproduction, all economic actors…are subject to the demands of competition, increasing productivity, capital accumulation, and the intense exploitation of labor" (Wood 2000, 40). Today's food system continues to treat food as a commodity, subjecting farmers to the dictates of the capitalist economic system.

One such dictate impacting farms is capitalism's drive for profit maximization that leads to the consolidation of land into larger holdings (Wood 2000). Within an economic system that rewards the production efficiencies accompanying economies of scale, the persistence of small-scale agriculture is a puzzle. In his seminal work *The Agrarian Question*, Karl Kautsky (1988) analyzed agriculture to reconcile the endurance of the small farm in capitalism, finding that the ability of the small farmer to self-exploit is a large part of what perpetuates small farms' existence. As Wood (2000, 30) describes, "the stark choice of agrarian capitalism [is] at best, intense self-exploitation, and at worst, dispossession and displacement by larger, more productive enterprises." When viewed in terms of labor, small farms may actually have greater

3. Capitalism created multiple demands on peasants for money. This included but was not limited to the need to purchase goods that peasants could no longer afford to produce themselves (Kautsky 1988).

land productivity due to higher self-exploitation of family labor (Woodhouse 2010). According to Kautsky (1988), this self-exploitation manifests in two forms: the increased industriousness of working for oneself and the extreme frugality of the small farmer. These findings apply to the persistence of small-scale, alternative farms in the United States and contemporary food system.

Several factors may contribute to small farms' survival today. "Primitive accumulation" is a concept that refers to value derived outside of capitalist production that acts as a kind of subsidy to capitalist production (Wilson 2012). Primitive accumulation occurs when workers rely on personal networks for social benefits not provided through low-wage employment, for instance. This enables the employer to pay lower wages and receive greater surplus value,[4] thereby removing some of the employer's responsibility for meeting workers' needs. Woodhouse (2010) studied international alternative responses to the mainstream food system. He concluded that small-scale farmers across the globe rely on "relative poverty of income" supplemented by non-market driven processes, which they rely on to meet their needs, to achieve perceived " 'autonomy' from markets and sustainability of natural resource stewardship" (Woodhouse 2010, 448). Similarly, many of the small-scale alternative food movement farmers in the United States rely on off-farm income (Bubela 2016), independent wealth, or low-paid or unpaid labor by both themselves and their workers to keep their farm in operation (Pilgeram 2011). This is not a new issue, as Kautsky (1988) explains that agricultural wage labor on someone else's farm was once the source of supplementary income for the small subsistence farmer. In this way, large and small farms each supported the other's existence. Given that agricultural apprenticeships are now a popular low-wage or non-waged labor relation on small-scale, ecologically-oriented farms, it is possible that apprenticeships are a contemporary answer

4. Surplus value is the value that workers produce through their labor power, beyond what they cost their employer (Braverman 1974).

to the age-old agrarian question of small-farm economic viability (Ekers et al. 2015). By relying on the outside resources of apprentices for these workers to meet their needs, agricultural apprenticeships may be a new form of primitive accumulation that contributes to the reproduction of the farms on which apprentices work.

Agricultural Apprenticeships and Internships

Agricultural apprenticeships and internships involving an exchange of education for labor between farmers and apprentices are very popular on farms that identify with sustainable agriculture (Ekers et al. 2015; Weiler, Otero, and Wittman 2016; Guthman 2014). "Ecologically-oriented methods" that these small and medium-sized farms practice include, but are not limited to, "agroecological, biodynamic, permaculture, and organic farming" (Ekers et al. 2015). Ekers et al. (2015) describe such apprenticeships or internships as non-waged or low-waged, where individuals typically receive no monetary compensation or a small stipend and often, but not always, housing and/or food. Educational training is also given as a form of compensation, but this too varies depending on the particular farm or farm program offering the experience. In return, apprentices provide their labor for the farm over the course of this seasonal position. Apprenticeships and internships are becoming increasingly prevalent on alternative food movement farms (MacAuley and Niewolny 2016; Gray 2013) across the Global North, particularly in the United States, Canada, and Western Europe (Ekers et al. 2015).

Several reasons are given to explain the widespread growth of apprenticeships and internships on ecologically-conscious farms. Often apprenticeship programs are described as a source of "critical experiential education and mentorship that cannot be acquired through classroom study alone" (Pointeau, Sullivan, and Wentzel-Fisher 2016), or even at all, as more formal, institutional programs may not be providing equivalent knowledge or skills (Ekers et al.

2015). At the same time, these farms have low profitability but a high need for hand labor, making apprenticeships and internships a possible solution for labor needs, even if this is not the stated or intended motivation. In fact, a study of this labor relation on Ontario ecologically-oriented farms found that "farms with a greater proportion of non-waged workers [apprentices, interns, and volunteers] tend to have lower gross revenues…and lower on-farm incomes" (Ekers et al. 2015, 8). It is unclear if these farms utilize apprentices[5] partially or wholly because they are less economically viable, if apprentices contribute to this lower financial success, or if some combination of the two is occurring. Also noteworthy is that apprentices and interns are rarely found on conventional or mixed organic farms (Guthman 2014). In Ontario, for instance, apprentices, interns, and volunteers make up 65 percent of workers on alternative farms but only 5 percent of the Ontario agricultural workforce overall (Ekers and Levkoe 2016). This may be because apprentices identify with the ideals of the alternative food movement (MacAuley and Niewolny 2016; Guthman 2014) and are often willing and able to self-exploit their own labor, given their existing, personal social and financial resources (Pilgeram 2011). Thus the popularity of apprenticeships today may be attributable to some combination of fulfilling educational and labor needs and participating in the alternative food movement.

The alternative food movement posits itself as a challenge to the industrialized food system, but does not always include social justice with its goals of environmental sustainability and economic viability for farmers. Sustainable agriculture movement discourse focuses on the disadvantages of small-scale, ecologically-oriented farms in the marketplace, but does not give equal consideration to the plight of farmers and farmworkers; farmers are revered while farmworkers are ignored. A socially inequitable system of labor relations that relies on

5. I use the terms "apprentice(s)" and "apprenticeship(s)" to also refer to "intern(s)" and "internship(s)" throughout the remainder of this thesis, except when I explicitly compare and contrast the two.

immigrant and migrant marginalized workers and is undergirded by legal exemptions from labor standards is present within the alternative food production system, not industrialized agriculture alone. For these reasons and because there is limited data concerning agricultural apprenticeships, as noted by Ekers et al. 2015, MacAuley and Niewolny 2016, and Pilgeram 2011, this thesis studied the goals, practices, and social justice ramifications of agricultural apprenticeship programs in the United States by asking: 1) What are the goals of agricultural apprenticeships in the United States?, 2) What are the practices of agricultural apprenticeships in the United States?, and 3) To what extent do the labor relations of agricultural apprenticeships achieve social justice?

The alternative food movement may fail to recognize that its efforts to challenge the mainstream agrifood system, by occurring within the framework that created this industrialized, corporatized system, are sometimes ineffective in reaching desired goals and may even strengthen the food system it theoretically wants to transform (Allen et al. 2003; Holt-Giménez and Shattuck 2011). This is not to say that efforts to create alternatives are not worthwhile, but that there is a difference in the capacity for social change between alternative and oppositional action. My critical inquiry approach seeks to unearth these discrepancies through acknowledgement of historical processes and structures as they affect the present, acknowledgement of the significant role of humans in shaping society, and an aim to emancipate oppressed groups through a combination of theory and political action (Comstock 1994). My research examined the goals and practices of agricultural apprenticeships in the United States and how these apprenticeships address social justice to better understand how the alternative food movement contributes to labor justice for a more socially equitable food system. My intent is that more socially just frameworks of farm labor relations can be used to strengthen social

equity within agricultural labor. Such an approach demanded situating apprenticeships within the historical and contemporary context of agricultural labor relations across the food system and the extent to which apprenticeships contribute to oppression in the form of powerlessness, exploitation, marginalization, cultural imperialism, and violence. My methodology and methods are explained in depth in the next chapter.

Chapter Three

Methodology and Methods

Practical experience on farms and academic study of the food system guide this research studying agricultural apprenticeship goals and practices as they pertain to socially just labor relations. The Marylhurst University Food Systems and Society graduate program cultivates scholar-activists addressing social justice and social change in the food system through the lens of critical inquiry. I use critical inquiry and discourse analysis to guide my methodological approach and the methods of grounded theory and content analysis to explore answers to my research questions. This chapter reflects on how my positionality influenced the questions I ask, my approach to discovering answers, and the analysis of my findings. Lastly, I will describe the text-based methods of grounded theory and content analysis I used to conduct research.

Methodology

Each of us brings our life experiences to anything we do. Recognizing how who we are affects our research is not cause for concern; instead, it allows for a more objective analysis of the subject material through acknowledging and analyzing one's positionality (Harding 2004). Personal experience as an intern/apprentice on three farms over three growing seasons sparked a desire to study agricultural apprenticeships in this thesis.[1] I began my internships wanting to learn more about farming, specifically how to be a successful grower and business person, after working with small, local farmers and repeatedly hearing that the best way to become a farmer is to apprentice on someone else's farm. I sought out financially successful farms in which my farm mentors were full-time farmers, wanting to understand how they "make it" economically,

1. One farm was managed by a nonprofit organization and two farms were for-profit. The nonprofit farm was a small farm according to USDA Extension's (2013) definition, generating less than $250,000 in gross sales, while the for-profit farms each took in an annual gross income of about $250,00. All were in the western United States: Colorado and Oregon.

and left with valuable experiences but a growing realization that the idealization of family farmers can obscure the realities of exploitative apprenticeship labor relations. I believe that my perspective as a farm worker, rather than a farm manager or owner, has potential to bring fresh insight and new connections to the alternative food movement's agricultural apprenticeships as well as corresponding academic literature. Further, my involvement in the social movement for living wages has given me greater understanding of the importance of fair wages and working conditions for employees, employers, and communities. As a graduate student at Marylhurst University, I study Food Systems and Society using critical inquiry to raise awareness "of the contradictory conditions of action which are distorted or hidden by everyday understandings" (Comstock 1994, 626). Only through scholarship, for example, have I been able to more fully understand my lived experience as a farm intern within the context of our society. Bridging work experience and academic study provided me with unique perspective to analyze agricultural apprenticeships.

Discourse analysis in which discourse is defined as structure and practices informs my approach to research (Laffey and Weldes 2004). "As structure, discourses are 'socio-cultural resources used by people'—and which use them—'in the construction of meaning about their world and their activities' (Ó Tuathail and Agnew, 1992: 192-3). As practice, they are structures of meaning-in-use" (Laffey and Weldes 2004, 28). Discourse is both linguistic (expressed through language) and semiotic (expressed through actions, institutions, social relations, and other manifestations) and always about power and politics (Laffey and Weldes 2004). Both the goals and practices of agricultural apprenticeships are discursive. Following the guidance of Laffey and Weldes (2004), I identify goals and practices to determine how agricultural apprenticeships are represented and enacted, paying particular attention in my analyses to

"identities of subjects and objects and their position relative to others" (29). I then interpret my findings using a framework of oppression and justice. Critical inquiry and discourse analysis form the methodology governing data collection and analysis for this thesis.

Methods

This research was conducted using unobtrusive methods, i.e., methods that do not involve human subjects and instead rely on information available in the public domain. Grounded theory is the method I used to collect and analyze data that answers my first and second research questions. Grounded theory is so named because out of this method emerge "theories 'grounded' in the data themselves" (Charmaz 2006, 2). Data is simultaneously collected and analyzed through a process of coding whereby the researcher sorts and compares data; labels data segments according to what each segment is about; and writes "memos" about the codes she has created, interpreting data tentatively to synthesize information and discover gaps that inform further questions to ask.

A key data source for this thesis was Pointeau, Sullivan, and Wentzel-Fisher's (2016) "Agrarian Apprenticeship: Growing the Next Generation of Ranchers and Farmers" (hereinafter "Agrarian Apprenticeship"). This report and guidebook was created by a nonprofit-facilitated agricultural apprenticeship program and based in part on questionnaires, phone calls, and site visits to a subset of apprenticeship programs across the United States. The farms offering these apprenticeships identify with the sustainable agricultural movement and are typically small-scale. The Quivira Coalition, which authored this report, is one participant in "a new collaboration [that] will harness the collective power of six new and beginning farmer and rancher apprenticeship programs to create a national farm and ranch learning network" (New Entry Sustainable Farming 2016). This group developed out of a $600,000 funding award from

the U.S. Department of Agriculture to a nonprofit looking to improve the quality of agricultural apprenticeship programs (New Entry Sustainable Farming 2016). The influence and connection of this organization amongst agricultural apprenticeship programs nationwide makes "Agrarian Apprenticeship" an important resource for this research to consider. A possible limitation, however, is that because these programs were sought out in part to help foster high quality apprenticeships, programs may be of above average quality compared to apprenticeships offered on other farms. Nevertheless, this source provided information about these agricultural apprenticeships that was not always available elsewhere.

With the case study portion of "Agrarian Apprenticeship" as my guide, I used the twenty-nine profiled farms in conjunction with publicly accessible data on their websites to explore answers to my research question. However, as is explained in more detail in Chapter Four's "Privilege, Whiteness, and Marginalization," I chose not to include the post-apprenticeship Maine Organic Farmers and Gardeners Journeyperson Program in my data collection and analysis, instead focusing on the Maine Organic Farmers and Gardeners Farm Apprenticeship Program based on website information alone.[2] I also did not collect or analyze data for three programs profiled in the aforementioned report, two because they were host farms within larger nonprofit-facilitated apprenticeship programs already included in the report and thus my data collection, and one because there was no information about this farm's apprenticeship program available on its website or elsewhere at the time of my study. These apprenticeship programs are Round River Resource Management, LLC, a member of the Quivira Coalition's New Agrarian Program; Roxbury Farm, a member of the North American Biodynamic Apprenticeship Program; and TomKat Ranch, respectively. As a result, twenty-six

2. The Journeyperson Program is featured in "Agrarian Apprenticeship," rather than the Farm Apprenticeship Program, despite the Journeyperson Program not being an apprenticeship.

farms and ranches were ultimately included in this study.[3] One program—at Brown's Ranch—had limited information on its website, so I gathered data from its internship posting within the National Center for Appropriate Technology's online Sustainable Agriculture Internship and Apprenticeship Directory, part of the Center's National Sustainable Agriculture Assistance Program (National Center 2016). Information was submitted by Brown's Ranch for posting within this well-known, national directory. Finally, when a program offered agricultural internships as well as agricultural apprenticeships, I evaluated the apprenticeship program.

The first research question of this thesis asks: What are the goals of agricultural apprenticeships in the United States? As grounded theory dictates, I sorted and compared data as I gathered it, focusing on formal and informal mission statements and goals of both apprenticeship programs themselves as well as the independent farm, nonprofit hub, or higher education institution of which each apprenticeship program is a part. (This is in accordance with my critical inquiry and discourse analysis methodologies, both of which place importance on who is speaking or acting, not just what is being said or done.) In "Agrarian Apprenticeship," programs are divided into three categories: farm-based or ranch-based, nonprofit hub-facilitated, or academic. As it became clear that analysis along these categories might provide useful insight, I recorded the legal status (for-profit, nonprofit, or academic) of the farms hosting apprenticeships as well as that of the organization or institution of which they are a part, if applicable. The potential importance of what program participants are called, i.e., "apprentice," "intern," both, or neither, also emerged as an important unit of analysis, leading me to gather and analyze this information. In accordance with grounded theory, I took "memos" along the way

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3. Hereinafter, when referring to agricultural apprenticeship programs profiled in "Agrarian Apprenticeship," I use the term "farm(s)" to refer to "farm(s) and ranch(es)" or "farmer(s)" to refer to "farmer(s) and rancher(s)."

which helped direct data collection and analysis regarding the goals of agricultural apprenticeships in the United States.

The second question of this thesis is: What are the practices of agricultural apprenticeships in the United States? Using the method of grounded theory, I again used the data itself to inform categories. Data sources were the same as those used to answer my first research question; that is, agricultural apprenticeship program case studies in "Agrarian Apprenticeship: Growing the Next Generation of Ranchers and Farmers" and these programs' websites and their publicly available documents. Through the course of data collection and analysis, it became clear that the "Agrarian Apprenticeship" case studies did not always distinguish between the apprenticeship program offered (the focus of this research) and internship, volunteer, or other opportunities offered by the featured organization. Examples include the case studies of the Rogue Farm Corps and University of California, Davis Student Farm, the latter of which does not even mention the actual apprenticeship program. When unable to rely on the data presented in "Agrarian Apprenticeship" for this reason, or when I found discrepancies between the information presented in "Agrarian Apprenticeship" and on programs' websites, I used apprenticeship programs' websites as my primary source. I deferred to data available via programs' websites over that available in "Agrarian Apprenticeship" for accuracy. Program websites often provided more detail than "Agrarian Apprenticeship" case studies, allowing me to study the practices of U.S. agricultural apprenticeships in greater depth.

Although I present some data quantitatively in tables, such as giving the number of programs that engage in particular types of education, these results should not be taken as exact and definitive, but rather exploratory in purpose for deriving themes. Some categories may appear to fall within another—such as "Readings, Study Materials, and/or Assignments" within

"Classroom Component," but this was included as a separate category because "Readings, Study Materials, and/or Assignments" stand on their own in some programs and are not part of a class. Additionally, some categories may not be wholly reflective of the number of programs that meet that category's criteria. For example, one program says that it teaches "advanced agricultural skills" (Rogue Farm Corps n.d.), but does not qualify what is specifically included, making it impossible to display what these skills are in this thesis. This research did not examine the individual goals and practices of farms within nonprofit-facilitated apprenticeship programs, instead focusing on the goals and practices outlined by nonprofit hubs themselves. Presenting data quantitatively allowed me to draw out broad themes and create a foundation on which to further examine agricultural apprenticeship practices in answering my third research question.

The third research question of this thesis is: To what extent do the labor relations of agricultural apprenticeships achieve social justice? Labor relations is defined as the relationship between management and employees, and the structural conditions shaping this relationship. I used the same data sources as those used in answering the first and second research questions, i.e., "Agrarian Apprenticeship" and individual apprenticeship program websites and documents, collecting new information as it pertained to social justice. I interpreted this information, using the method of content analysis, along with that regarding apprenticeship goals and practices from answering my first and second research questions.

Content analysis differs from grounded theory in that categories for data organization and analysis are pre-determined (Schreier 2014). Here these categories were Iris Marion Young's (1990, 39) "five faces of oppression": powerlessness, exploitation, marginalization, cultural imperialism, and violence. These categories are the concepts and conditions that create oppression, hindering people's "ability to develop and exercise their capacities and express their

needs, thoughts, and feelings" (Young 1990, 39). As we go about our everyday lives, we engage in practices that may not be intended to disadvantage some over others, but have that effect. Practices can relate to distribution and create distributive injustice, but entail much more than that, such as "decision-making procedures, division of labor, and culture" (Young 1990, 39). As with the findings of all of my research questions, I provide examples representative of larger patterns among agricultural apprenticeships, not intending to critique individual farms, and knowing that the wide diversity in farms and agricultural apprenticeship programs lends itself to exceptions for any rule. Young was a leading scholar of social justice, and her five faces of oppression framework is a fitting tool to explore the ways in which agricultural apprenticeships address justice.

My third research question is situated within academic literature and publicly available documents on the topics of agricultural apprenticeships and agricultural labor relations. This will place my research findings, largely based on how the sustainable agriculture movement represents and enacts apprenticeships on the ground, within the context of scholarly research and information from the public domain. I analyze sources discussing the historical and contemporary labor relations of apprenticeships and internships across industries as well as sources discussing the conditions of migrant and immigrant farmworkers in the industrialized and alternative food systems. These sources are Elbaum and Singh 1995, Epstein 2003, Perlin 2012, and Gray 2013 concerning pre-modern apprenticeships; United States "Frequently Asked" n.d., United States "Youth Programs" n.d., Perlin 2012, U.S. Department 2010, The Economist 2011, and National Council of Nonprofits 2017 concerning contemporary apprenticeships; and Bon Appétit 2011; Getz, Brown, and Schreck 2008; Romeo 2016; Brown and Getz 2011; Rodman et al. 2016; Grossman 2016; Martin 2002; Gray 2013; and Minkoff-Zern 2013

concerning industrialized and alternative farm labor relations. I use the data from these sources to draw comparisons with the data from sources discussing the agricultural apprenticeships of today, such as Ekers et al. 2015; Weiler, Otero, and Wittman 2016; Childs 2015; Pilgeram 2011; Ekers and Levkoe 2016; and MacAuley and Niewolny 2016, presenting my findings in tables. Because the use of apprentices and interns on sustainable agriculture movement farms is a Global North phenomenon (Ekers et al. 2015), academic literature includes contributions from the United States as well as Canada.

My analysis of how agricultural apprenticeships address justice within the alternative food movement also includes a discussion of Sligh et al.'s (2012) "Social Stewardship Standards in Organic and Sustainable Agriculture," designed to achieve justice for farmworkers and farm apprentices. These guidelines come from one of only a handful of certification programs that address social justice, in this case The Agricultural Justice Project's Food Justice Certification for farmers and buyers (Wadsworth and Henderson 2016). I look at how these standards relate to the legal standing of agricultural apprenticeships. These research methods yielded the results, analysis, and conclusions of the following chapter.

Chapter Four

Results, Analysis, and Contribution

Capitalist agricultural production has often, if not always, relied on exploitative labor practices and it is unclear to what extent the alternative food movement challenges these practices. The sustainable agriculture movement opposes industrialized agriculture and the global food system, yet by developing alternatives within mainstream structures that created the dominant food system, may replicate its injustices rather than dismantle them to build a system that is socially equitable (Allen et al. 2003). Agriculture has historically been a financially volatile sector. Sustainable agriculture farms are typically small in size and compete in a marketplace that is accustomed to cheap food. These factors can enhance the financial pressures such farms experience. Combined with the virtuous attributes ascribed to "family" farmers and their juxtaposition to industrialized farmers, the alternative food movement may be disinclined to advocate for farmworkers; fair treatment for workers is at odds with farmers' bottom line.

Agricultural apprenticeships are an increasingly popular labor relation within the alternative food movement. In exchange for their labor, apprentices are promised education and sometimes receive a stipend, housing, and/or food. This thesis studies agricultural apprenticeships in the United States to better understand how this labor relation addresses labor justice in the alternative food movement. This is important to study because other agricultural labor relations on farms within the alternative food movement reproduce some of the inequities found on industrialized farms. My research questions are: What are the goals of agricultural apprenticeships in the United States?; What are the practices of agricultural apprenticeships in the United States?; and To what extent do the labor relations of agricultural apprenticeships in the United States achieve social justice? Looking at twenty-six agricultural apprenticeship programs, I allowed their goals and practices to emerge from the data itself. I then used these

goals and practices to evaluate the extent to which agricultural apprenticeships contribute to oppression and impede or achieve social justice using pre-determined categories of powerlessness, exploitation, marginalization, cultural imperialism, and violence. Finally, I compare the agricultural apprenticeships of the contemporary alternative food movement with industrialized farm labor, pre-modern apprenticeships, and contemporary apprenticeships in other trades.

Differences Among Types of Organizations Offering Agricultural Apprenticeships

Agricultural apprenticeship programs are offered by several types of organizations, and this research showed that type of organization may be an important distinction in understanding program goals and practices. "Agrarian Apprenticeship" characterizes its featured programs using the following guidelines:

> - Ranch- and Farm-Based Apprenticeships, typically administered directly by a single, private ranch and/or farm working independently to offer entry-level learning and working positions for beginning ranchers or farmers and defining these positions as apprenticeships.
> - Nonprofit Hubs, typically partnerships between nonprofit organizations and mentor ranches and farms in which the nonprofit serves as the program hub, providing a variety of support services for multiple host ranches and farms.
> - Academic Programs, hands-on training provided on campus farms for enrolled students, which meets the definition of apprenticeship but is not necessarily referred to as such. (Pointeau, Sullivan, and Wentzel-Fisher 2016, 21)

These categories are not always clearly differentiated. A ranch or farm offering apprenticeships without the assistance of a "nonprofit hub" can be a nonprofit on its own, for example, falling under the category of "ranch-and farm-based apprenticeships."[1] In one case a for-profit farm, Vilicus Farms, has developed a nonprofit arm "to help grow the apprentice program" (Vilicus

1. This thesis uses the term "nonprofit farm" to describe an independent, nonprofit farm and the term "nonprofit hub" to describe a nonprofit organization facilitating agricultural apprenticeships at multiple host farms.

Farms 2017). Nonprofit hubs, although they themselves are not-for-profit, facilitate apprenticeships at independent farms that may be for-profit or nonprofit, though they are usually for-profit. Another apprenticeship program is coordinated by a "nonprofit within an academic institution on government-owned land" (Center for Environmental Farming 2016), while participants of the Organic Farmer Training Program at Michigan State University are students of the program but not of the university itself (Michigan State University 2015). University of California, Davis' apprenticeship participants are both students and non-student members of the public (Regents of the University n.d.), despite the definition provided by Pointeau, Sullivan, and Wentzel-Fisher (2016) above. At some colleges and universities, farms are used primarily by students within a particular department or major, whereas at others, students involved in apprenticeships span departments and degrees. These are just a few examples of the sometimes considerable and sometimes subtle differences of agricultural apprenticeship programs within (and across) categories of facilitating organizations. Refer to table 10 in the Appendix for a list of the twenty-six agricultural apprenticeship programs studied in this thesis, their affiliated organizations, and the type of each affiliated organization.

The Goals of Agricultural Apprenticeship Programs

Given the potential disconnect between how apprenticeships are advertised to the public and their role in meeting farms' labor needs as described in the literature, I sought to clarify what it is that apprenticeship programs strive to achieve by asking: What are the goals of agricultural apprenticeship programs in the United States? The top two explicit goals of agricultural apprenticeship programs are educating about sustainable agriculture, with 65 percent of programs in this study stating this as a goal, and creating new farmers, with 58 percent of programs stating this as a goal. Creating new farmers is variously expressed as increasing farm

owners, managers, or producers, working with aspiring farmers, and aiding in the creation of new farms.[2] This information, as well as other goals of agricultural apprenticeship programs, is detailed in table 1. These two goals are related, since becoming a farmer involves being versed in sustainable agriculture. However, not all programs seeking to educate about sustainable agriculture also state that a goal is to create new farmers.

2. Only one agricultural apprenticeship program, the Michigan State University Organic Farmer Training Program, states in its goals to create farmers that will manage nonprofit farms in addition to those that will manage for-profit farms (Michigan State University 2015).

Table 1. Explicit goals of agricultural apprenticeship programs

	Goals								
Program Name	Educate About Sustainable Agriculture	Create New Farmers	Educate About Social Justice	Reduce Apprentices' Barriers to Becoming Farmers and/or Connect Apprentices with Resources	Contribute to Community and/or Individual Well-being	Improve Health of the Environment and/or Food Supply	Receive Labor	None	Train Farmer/Supervisor-Hosts
Dairy Grazing Apprenticeship		✓			✓				
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	✓	✓							
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	✓								
North American Biodynamic Apprenticeship Program		✓							
Rogue Farm Corps FarmsNOW	✓	✓							
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	✓	✓		✓					
Farm Education Resource Network (FERN) FarmReach	✓	✓		✓					
Quivira Coalition New Agrarian Program	✓					✓			✓

Program Name	Educate About Sustainable Agriculture	Create New Farmers	Educate About Social Justice	Reduce Apprentices' Barriers to Becoming Farmers and/or Connect Apprentices with Resources	Contribute to Community and/or Individual Well-being	Improve Health of the Environment and/or Food Supply	Receive Labor	None	Train Farmer/Supervisor-Hosts
Brown's Ranch Internship								✓	
Caretaker Farm Apprenticeship Program		✓							
Full Belly Farm Internship								✓	
School of Adaptive Agriculture Practicum Student Program [a]	✓	✓							
Hawthorne Valley Farm Apprenticeship	✓	✓							
Pie Ranch Apprenticeship Program	✓	✓	✓						
Polyface, Inc. Apprenticeship								✓	
The Seed Farm New Farmer Training Program		✓		✓					
Sisters Hill Farm Apprenticeship		✓							
Vilicus Farms Registered Organic Farm Worker Apprenticeship	✓	✓							
Berea College Farm Student Labor Program	✓		✓			✓	✓		
California Polytechnic State University (Cal Poly) Organic Farm	✓								

Program Name	Educate About Sustainable Agriculture	Create New Farmers	Educate About Social Justice	Reduce Apprentices' Barriers to Becoming Farmers and/or Connect Apprentices with Resources	Contribute to Community and/or Individual Well-being	Improve Health of the Environment and/or Food Supply	Receive Labor	None	Train Farmer/Supervisor-Hosts
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program	✓[b]	✓	✓	✓					
College of the Ozarks Agriculture Department	✓								
Evergreen State College Organic Farm	✓		✓						
Michigan State University Organic Farmer Training Program		✓[c]							
University of California, Davis Student Farm	✓								
Warren Wilson College Farm Crew	✓				✓		✓		
Total	17	15	4	4	2	2	2	1	1
Percentage (%)	65	58	15	15	8	8	8	4	4

[a] The School of Adaptive Agriculture was formerly the Grange Farm School, and changed its name after publication of Pointeau, Sullivan, and Wentzel-Fisher's (2016) "Agrarian Apprenticeship: Growing the Next Generation of Ranchers and Farmers."

[b] Included in this category for The Center for Environmental Farming Systems' Sustainable Agriculture Apprenticeship Program is cultivating research and teaching skills to apprentices, who in turn can then educate community members.

[c] The Michigan State University Organic Farmer Training Program states that another goal is preparing trainees for sustainable agriculture careers in capacities other than farming, such as education or advocacy.

Agricultural apprenticeship programs are often posited by the alternative food movement as a solution to America's aging farmer population in need of new farmers to quite literally replace them and steward their land (New Entry Sustainable Farming 2016). Examples include the Rogue Farm Corps' FarmsNOW, the Quivira Coalition's New Agrarian Program, and the Stone Barns Center's Growing Farmers Initiative (Rogue Farm Corps n.d.; Quivira Coalition 2017; Stone Barns Center 2017a). Summed up by one apprenticeship program articulating its purpose, "Did you know that the largest age group of farmers in the USA is over 65? This, combined with the fact that up to half of all farmland in the U.S. is predicted to change hands in the next 10-15 years, means training the next generation has never been more important" (Rogue Farm Corps n.d.). When agricultural apprenticeship programs describe their top successes in "Agrarian Apprenticeship" though, success is often measured not only in terms of new farmers, but in terms of apprentices who remain involved in food or supporting sustainable farming in any capacity. Examples of programs that describe success in this way are Stone Barns Center for Food and Agriculture's Growing Farmers Initiative, Full Belly Farm's internship, Hawthorne Valley Farm's apprenticeship, and the Center for Environmental Farming System's Sustainable Agriculture Apprenticeship Program (Pointeau, Sullivan, and Wentzel-Fisher 2016). While some apprentices do become farmers, others contribute to the sustainable agriculture movement (and support small farmers) by becoming advocates and pursuing food-related careers.

Several additional goals are infrequently cited by agricultural apprenticeship programs. Only four programs, or 15 percent, expressly mention removing beginning farmer barriers to entry (such as land and capital) in their mission statements, despite over half of programs aiming to create new farmers. Four programs include social justice education as a goal. Contributing to community and/or individual well-being, improving the health of the environment and/or food

supply, and receiving labor are described as goals by two agricultural apprenticeship programs each, or 8 percent of programs. One program, or 4 percent, includes "training ranchers and farmers to be mentors" as a goal (Quivira Coalition 2017), meaning training farmers in best practices as educators and mentors for apprentices. One program has no explicit goal. Importantly, no programs aspire to create new farmworkers (rather than farmers) according to their stated goals; this includes Vilicus Farms' Registered Organic Farm Worker Apprenticeship, described as "a journey that ultimately ends in farm ownership" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 69). No apprenticeship programs' goals include the aspiration to create a socially just food system. These stated goals will be explored in more detail in the next section in conjunction with the goals of organizations facilitating agricultural apprenticeship programs.

The Goals of Independent Farms, Nonprofit Hubs, and Academic Institutions Offering Agricultural Apprenticeship Programs

The goals of organizations offering agricultural apprenticeship programs are similar to the goals of the programs themselves, with some differences. Two goals emerged as the top priorities of these organizations, as can be seen in table 2. Fifteen organizations, or 58 percent, aim to contribute to community and/or individual well-being,[3] while fourteen organizations, or 54 percent, aim to improve the health of the environment and/or food supply. Yet even with the presence of goals to help communities and the environment, only four organizations explicitly mention social justice. In fact, organizations' definition of "community" is highly variable, reflective of a trend across agricultural apprenticeship programs and their affiliated organizations to define even widely used terms in many different ways. Several organizations, such as the Dairy Grazing Apprenticeship, desire to contribute to the economic and environmental well-

3. "Community and/or individual well-being" generally refers to the larger community and its members in which a farm is embedded, rather than referring specifically to the community that lives and/or works on the farm.

being of their communities, but do not mention social considerations. One organization, which does not describe social justice as a goal but does mention farmworkers, strives to provide stable employment (Rohner Design 2017), but this seemingly does not apply to apprentices, who fill a temporary position. Another organization emphasizes the importance of agricultural systems that "benefit human health and the environment," but this does not necessarily mean that this organization is working to distribute the health benefits of sustainable agriculture equitably (Stone Barns Center 2017). To California Polytechnic State University, or Cal Poly, community contribution explicitly requires environmental and social responsibility. Overall, the two most popular goals of organizations offering agricultural apprenticeship programs involve generating economic, environmental, and sometimes social benefits. Without attention to social justice, however, organizations do not necessarily aim to distribute these benefits equitably amongst all members of society; as Cadieux and Slocum (2015) illustrate, this is a problem found across the alternative food movement.

Table 2. Explicit goals of independent farms, nonprofit hubs, and academic institutions offering agricultural apprenticeship programs

Independent Farm, Nonprofit Hub, or Academic Institution Name	Goals											
	Type of Organization	Contribute to Community and/or Individual Well-being	Improve the Health of the Environment and/or Food Supply	Educate About Sustainable Agriculture	Create New Farmers	Educate Apprentices in Skills or Areas Not Specific to Farming	Create a Socially Just Food System	Educate About Social Justice	Receive Labor	None	Promote Farmers' Societal Standing	Train Farmer/Supervisor-Hosts
Dairy Grazing Apprenticeship	Nonprofit Hub	✓			✓							
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS)	Nonprofit Hub	✓										
Maine Organic Farmers and Gardeners Association	Nonprofit Hub	✓	✓	✓								
Biodynamic Association	Nonprofit Hub	✓	✓									
Rogue Farm Corps	Nonprofit Hub	✓			✓							
Stone Barns Center for Food and Agriculture	Nonprofit		✓									
Farm Education Resource Network (FERN)	Nonprofit Hub		✓	✓								
Quivira Coalition	Nonprofit Hub	✓	✓	✓								
Brown's Ranch	For-profit Independent Farm									✓		
Caretaker Farm	For-profit Independent Farm	✓										

Independent Farm, Nonprofit Hub, or Academic Institution Name	Type of Organization	Contribute to Community and/or Individual Well-being	Improve the Health of the Environment and/or Food Supply	Educate About Sustainable Agriculture	Create New Farmers	Educate Apprentices in Skills or Areas Not Specific to Farming	Create a Socially Just Food System	Educate About Social Justice	Receive Labor	None	Promote Farmers' Societal Standing	Train Farmer/ Supervisor-Hosts
Full Belly Farm	For-profit Independent Farm	✓	✓									
School of Adaptive Agriculture (formerly Grange Farm School)	Nonprofit			✓	✓							
Hawthorne Valley Farm	Nonprofit		✓	✓								
Pie Ranch	Nonprofit	✓	✓	✓	✓		✓					
Polyface, Inc.	For-profit Independent Farm		✓		✓[a]							
The Seed Farm	Nonprofit				✓							
Sisters Hill Farm	Nonprofit	✓[b]	✓		✓							
Vilicus Farms	For-profit Independent Farm		✓		✓						✓	
Berea College	Academic	✓				✓		✓	✓			
California Polytechnic State University (Cal Poly)	Academic	✓				✓						
Center for Environmental Farming Systems	Nonprofit (Within Academic Institution)	✓	✓	✓			✓					
College of the Ozarks	Academic	✓				✓						
Evergreen State College	Academic	✓	✓			✓		✓				
Michigan State University	Academic			✓								

Independent Farm, Nonprofit Hub, or Academic Institution Name	Type of Organization	Contribute to Community and/or Individual Well-being	Improve the Health of the Environment and/or Food Supply	Educate About Sustainable Agriculture	Create New Farmers	Educate Apprentices in Skills or Areas Not Specific to Farming	Create a Socially Just Food System	Educate About Social Justice	Receive Labor	None	Promote Farmers' Societal Standing	Train Farmer/ Supervisor-Hosts
Agricultural Sustainability Institute at University of California, Davis	Academic		✓	✓								
Warren Wilson College	Academic					✓			✓			✓
Total		15	14	9	8	5	2	2	2	1	1	1
Percentage (%)		58	54	35	31	19	8	8	8	4	4	4

[a] Polyface, Inc. seeks to create new agricultural enterprises around the world, which I correlate to creating new farmers.

[b] Included in this category for Sisters Hill Farm is outreach to the poor.

The goals of organizations facilitating agricultural apprenticeship programs appear related to these programs' formal structure along independent farm, nonprofit hub, and academic institution lines. These organizations are sometimes the "hosts" of apprenticeships, i.e., the organizations providing the actual apprenticeship experience. This includes independent for-profit and nonprofit farms and some academic institutions directly offering apprenticeships. In other cases, nonprofit hubs facilitate the apprenticeship program, but the program takes place at independent farms. It was beyond the scope of this thesis to evaluate the goals of the independent farms within these nonprofit hubs. Further, although I deduced general patterns in organizations' goals by observing their formal structure, I did not use this structure as a unit of analysis per se. This is an area to which further research could contribute.

Some organizations offering agricultural apprenticeships include providing education in their organizations' goals. Thirty-five percent of organizations state that they aspire to educate about sustainable agriculture, 19 percent aspire to educate in skills or areas not specific to farming, and 8 percent aspire to educate about social justice. None of the organizations with these educational goals are for-profit independent farms; instead, they are made up of nonprofit farms, nonprofit hubs, and academic institutions. While the previous section, "The Goals of Agricultural Apprenticeship Programs," showed that education in sustainable agriculture is a goal of some apprenticeship programs at for-profit farms, this section reveals that education is not a part of their larger organization's mission. For-profit farms, along with nonprofit farms and nonprofit hubs, do sometimes include creating new farmers in their organization's mission, but do not explicitly mention education. Conversely, no academic institutions include creating new farmers in their institution's goals, but do include education. These findings show that

different types of organizations have different education-related priorities, as expressed through their missions and goals.

Academic institutions describe the education of participants as a broad goal, yet ironically are the only programs in this study that explicitly include labor in their mission. All of the organizations in this research aspiring to educate apprentices in skills or areas not specific to farming, of which there were five (or 19 percent), are academic institutions. In addition to teaching about farming-related topics, their apprenticeship programs also strive to educate apprentices in non-farming skills or areas. Regarding labor, a specific type of institution has taken the lead on addressing this: work colleges that require every admitted student to work for the school and earn wages put toward the cost of tuition.[4] This work requirement can be met on the school's farm, or in any number of other areas that meet the school's needs. These institutions expressly acknowledge their need for labor, as evidenced in statements such as "We need our students to work in order to operate our college, and they enjoy that experience and how it enhances their education" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 77), or "…our students are essential to the daily operation of the campus" (Warren Wilson College 2017). Similarly, "Our students are essential to the operations of the farm. Without them there would be no farm. They are involved in everything from the day-to-day tasks that get necessary work done to the longer-range planning that shapes the farm for future students" (Berea College 2015). These colleges acknowledge their reliance on student labor while providing a broad education for the student.

Though there are nuanced differences among work colleges and how their farm work programs operate, a potentially important distinction between these and other programs is how

4. Please note that the information in this and the next paragraph is specific to work colleges and not meant to be generalized to all academic institutions.

they view the relationship between labor and education. Labor, while recognized as necessary, is viewed as supplemental to core education rather than the other way around: education as a complement to work. These are the only programs that acknowledge the value of labor in and of itself as opposed to labor's value in its means to an end: becoming a farmer. At Berea College, for instance, "The Student Labor Program…is based on an understanding and expectation of labor as student- and learning-centered…" (Berea College 2015). One of the college's "Great Commitments" guiding its mission is "To provide for all students through the labor program experiences for learning and serving in community, and to demonstrate that labor, mental and manual, has dignity as well as utility" (Berea College 2015). The Work Program of Warren Wilson College "celebrates the ethics and value of work in the educational process," in part by "fostering…respect for the dignity of labor" (Warren Wilson College 2017). Valuing apprentice labor in and of itself stands in contrast to most other programs' emphasis on working for the primary purpose of agricultural production, albeit while possibly learning in the process.

There is disagreement amongst agricultural apprenticeship programs as to which types of farms (for-profit, nonprofit, or academic) are the most suitable for successfully preparing the next generation of American farmers. One nonprofit hub working with host for-profit farms prides itself on placing apprentices on these types of farms: "FarmsNOW differs from other farmer training programs in a few ways. First, students are placed on commercial, for-profit farms. This gives students a 'real-world' opportunity to learn farming and the business of farming that is very different than training programs based on non-profit or school-based farms" (Rogue Farm Corps 2017). A different apprenticeship program facilitated by a nonprofit farm partnering with local universities, agrees that nonprofit training programs are different but contests that "real-world" experience is necessarily better:

> The experience that apprentices gain on a teaching farm is quite different than that of a family farm business. Because our focus is on education, our staff is here to train rather than focus on the bottom line. If, while running tractors through a field, an apprentice accidentally takes out a row, it is an opportunity for us to teach, whereas in a real-world farming situation, it could mean hundreds of dollars lost. (Pointeau, Sullivan, and Wentzel-Fisher 2016, 75)

This is not to say that nonprofit or academic farms do not face pressures to be financially viable; some even describe themselves as "both a business and a learning laboratory…" (Warren Wilson College 2017). Nevertheless, the type of organization through which an agricultural apprenticeship takes place can have a significant influence on the apprenticeship program's goals.

Key Findings

This research found that more than half of agricultural apprenticeship programs seek to educate about sustainable agriculture (65 percent) and to create new farmers (58 percent), while more than half of organizations offering apprenticeship programs seek to contribute to community and/or individual well-being (58 percent) and to improve the health of the environment and/or food supply (54 percent). Community contributions are defined in various ways by different groups. The organizations themselves offering apprenticeship programs also aim to educate about sustainable agriculture (35 percent), create new farmers (31 percent), and educate apprentices in skills or areas not specific to farming (19 percent). The latter two goals appear related to the type of organization offering the program, with academic institutions (or their programs) unlikely to have creating new farmers as a goal, but the only type of organization likely to have educating apprentices in skills or areas not specific to farming as a goal. These are the top goals of agricultural apprenticeship programs and the organizations that offer them.

Additional goals of these programs and the organizations facilitating them are less common and should be researched further to better understand how an organization's status as a for-profit farm, nonprofit farm, nonprofit hub, or academic institution affects its goals. Additional goals of agricultural apprenticeship programs include educating about social justice (15 percent), reducing apprentices' barriers to becoming farmers and/or connecting apprentices with resources (15 percent), contributing to community and/or individual well-being (8 percent), improving the health of the environment and/or food supply (8 percent), receiving labor (8 percent), training farmer/supervisor-hosts (4 percent), and none (4 percent). These goals are similar to the additional goals of organizations offering apprenticeships, namely to create a socially just food system (8 percent), educate about social justice (8 percent), receive labor (8 percent), promote farmers' societal standing (4 percent), train farmer/supervisor-hosts (4 percent), and none (4 percent). No for-profit farms or nonprofit hubs, which typically work with for-profit farms, have social justice goals for their apprenticeship program or organization. Finally, only one agricultural apprenticeship program and one organization include host farmer or supervisor training in their goals—the program of a nonprofit hub (Quivira Coalition) and the academic institution of Warren Wilson College. Warren Wilson College says that it fulfills its Work Program mission by "Providing opportunities and resources that enhance supervisors' roles as mentors and teachers" (Warren Wilson 2016). Given the documented tension between fulfilling farmers' labor needs and apprentices' educational needs, it is striking that so few programs and organizations include social justice or host farmer/supervisor training in their goals. Moving next to what agricultural apprenticeships are doing rather than saying, the next section of this thesis looks at the practices of agricultural apprenticeship programs.

Agricultural Apprenticeships in Practice

Agricultural apprenticeships have varying goals; do programs also have varying practices? The second question of this thesis asks: What are the practices of agricultural apprenticeships in the United States? These practices create the conditions surrounding labor, education, compensation, tuition, evaluation, and post-apprenticeship support, among other factors characterizing the labor relations of agricultural apprenticeships. Governing the exchange between apprentice and host farmer, these practices benefit apprentices and farmers in different ways and to different extents.

Labor and Education

Agricultural apprenticeships largely seek to develop aspiring farmers through experiential learning, with 25 of 26 programs in this study, or 96 percent, stating that they provide hands-on training to apprentices; see table 3 regarding the various forms of education within agricultural apprenticeship programs. This makes hands-on training the most popular form of education for apprentices. It is highly dependent on the host farmer and the needs of the specific farm at which an apprentice works. Given the uniqueness of every farm, it was beyond the scope of this thesis to detail the farm labor required of apprentices on each of the twenty-six studied farms. More research is needed to determine the extent to which hands-on training differs from farm labor. Further, some individual programs offer multiple apprenticeship positions at a single farm focused on different farm areas or topics, thus changing the exact nature of the work.[5] Variability in what hands-on training entails grants flexibility to host farmers, which could contribute to the prevalence of this form of education amongst agricultural apprenticeships.

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5. These programs include, but are not limited to, Stone Barns Center for Food and Agriculture's Growing Farmers Initiative, Hawthorne Valley Farm's Apprenticeship, Berea College Farm's Student Labor Program, and the Center for Environmental Farming Systems' Sustainable Agriculture Apprenticeship Program.

Table 3. Forms of education within agricultural apprenticeship programs

	Forms of Education											
Program Name	Hands-on Training	Field Workshops	Farm Tours[a]	Classroom Component	Farmers Market Experience	Discussions	Conferences and/or Events	Farm Planning Meetings with Host Farmer	Host Farm Walks	Readings, Study Materials, and/or Assignments	Farm Journaling	Individual Business Advising
Dairy Grazing Apprenticeship	✓	✓		✓		✓	✓		✓			✓
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	✓	✓	✓	✓	✓	✓	✓			✓		
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	✓	✓	✓									
North American Biodynamic Apprenticeship Program	✓		✓	✓							✓	
Rogue Farm Corps FarmsNOW	✓		✓	✓		✓						✓
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	✓	✓	✓	✓			✓					
Farm Education Resource Network (FERN) FarmReach	✓	✓			✓		✓					
Quivira Coalition New Agrarian Program	✓	✓	✓	✓	✓		✓	✓			✓	
Brown's Ranch Internship	✓	✓	✓		✓							
Caretaker Farm Apprenticeship Program	✓	✓	✓			✓			✓	✓		
Full Belly Farm Internship	✓	✓	✓		✓							
School of Adaptive Agriculture Practicum Student Program	✓	✓	✓	✓	✓	✓				✓		
Hawthorne Valley Farm Apprenticeship	✓	✓	✓		✓			✓			✓	
Pie Ranch Apprenticeship Program	✓	✓						✓	✓			
Polyface, Inc. Apprenticeship	✓	✓		✓	✓							

Program Name	Hands-on Training	Field Workshops	Farm Tours[a]	Classroom Component	Farmers Market Experience	Discussions	Conferences and/or Events	Farm Planning Meetings with Host Farmer	Host Farm Walks	Readings, Study Materials, and/or Assignments	Farm Journaling	Individual Business Advising
The Seed Farm New Farmer Training Program	✓	✓	✓	✓	✓							
Sisters Hill Farm Apprenticeship	✓	✓	✓					✓				
Vilicus Farms Registered Organic Farm Worker Apprenticeship	✓	✓	✓				✓	✓				
Berea College Farm Student Labor Program	✓	✓		✓	✓							
California Polytechnic State University (Cal Poly) Organic Farm	✓	✓	✓	✓	✓	✓						
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program	✓	✓	✓	✓	✓							
College of the Ozarks Agriculture Department	✓			✓	✓							
Evergreen State College Organic Farm		✓	✓	✓	✓							
Michigan State University Organic Farmer Training Program	✓	✓	✓	✓	✓				✓	✓		✓
University of California, Davis Student Farm	✓	✓	✓	✓		✓						
Warren Wilson College Farm Crew	✓		✓	✓								
Total	25	22	20	17	15	7	6	5	4	4	3	3
Percentage (%)	96	85	77	65	58	27	23	19	15	15	12	12

[a]This column refers to farm tours that take place at farms other than the host farm at which an apprentice is working.

It is unclear how much of this training is supervised or occurs alongside the host farmer. For example, even when a nonprofit hub requires farmers to spend a certain number of hours with the apprentice, this may be difficult to ensure since a representative from the nonprofit hub is not present on a regular basis. As one farmer describes the challenge of teaching interns through engagement with farm labor, "I am mostly that person who works with them, giving them tasks, helping with issues, etc., but I am way too busy on the farm to be super good at it!" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 49). Still, hands-on training is the most popular form of apprentice education.

One possible distinguishing feature of apprenticeships from other types of farm work is that apprentices sometimes engage in multiple aspects of farm work, rather than only engaging in a small portion of farm activities. The Quivira Coalition, for instance, directs farmers and ranchers to "insure that the apprentice receives ample hands-on experience and instruction in every aspect of the operation" (Quivira Coalition 2017). The intent here is that apprentices gain at least some level of experience in a variety of tasks. At one farm with multiple on-site enterprises, "before the vegetable season begins in earnest, it is anticipated that 1st-year (non-advanced) apprentices will be assigned various opportunities for brief experiences working in some of these other…branches" (Hawthorne Valley Farm 2016, 8). These branches include Hawthorne Valley Farm's Creamery, Sauerkraut Cellar, On-Farm Natural Foods Store, and Waldorf School, to name a few. Similarly, the Michigan State University Organic Farmer Training Program has "learning rotations" to experience different aspects of farming and farm management (Pointeau, Sullivan, and Wentzel-Fisher 2016, 81).

Important to remember, however, is that exposure, however varied, does not necessarily equate to a thorough education. While perhaps more educational than traditional farm work, this

does not make apprenticeship education through hands-on training inherently just. The sustainable agriculture movement should be wary of assuming that these experiences are adequate training for aspiring farmers, if that is the goal. Whereas some farms describe their training as structured, others imply that diverse training opportunities arise due to the nature of the job itself, rather than a formal structure: "Our primary method for learning how to manage a farm is to perform critical tasks in a timely manner" (Silverman n.d.). This makes learning dependent on what tasks come up, or not. One nonprofit hub says that its for-profit host farms balance "basic, repetitive tasks…with new and increasingly challenging work to enable the development of higher-level skills and to further apprentice learning" (Quivira Coalition 2017), but this is not necessarily the case in all apprenticeship programs. Interestingly, Vilicus Farms is one of the Quivira Coalition's host farms in its New Agrarian Program, yet Vilicus describes the apprenticeship experience differently than Quivira on its website and in its publicly available materials. Vilicus reserves increasing responsibilities for second-year apprentices (Vilicus Farms n.d.), and describes the opportunity available through Quivira Coalition as more of an immersion experience (Vilicus Farms 2017). This is an example of how apprentices could easily be confused as to what is expected of them and what they should expect to receive in return. Finally, only a few programs—the Rogue Farm Corps' FarmsNOW (Rogue Farm Corps n.d.), Michigan State University's Organic Farmer Training Program (Michigan State University 2015), and Berea College Farm's Student Labor Program (Berea College 2015), indicate that an apprenticeship involves farm management experience for the apprentice. Hands-on training results in a varied education for apprentices depending on the agricultural apprenticeship program (and farm) in which they are participating.

Agricultural apprenticeships utilize additional means of education to varying degrees. The most popular after "hands-on training" is field workshops, which 85 percent of programs offer; farm tours, which 77 percent of programs offer; classroom components, which 65 percent of programs offer; and farmers market experience, which 58 percent of programs offer. Twenty-seven percent of programs use discussions as an educational tool and 23 percent of programs include attendance at conferences or other events in apprentices' education. Nineteen percent of programs use farm planning meetings with the host farmer; 15 percent use farm walks with the host farmer; and 15 percent use readings, study materials, and/or assignments. Only a few programs, or 12 percent, use farm journaling and individual business advising. Agricultural apprenticeships choose to educate apprentices by engaging in a number of different practices.

Through the forms of education just described, the agricultural apprenticeship programs studied in this thesis address fourteen different educational topics. This is important to examine since the foremost goal of these programs is to educate about sustainable agriculture and because programs acknowledge that they are sometimes creating alternative food movement advocates rather than new farmers. Which aspects of sustainable agriculture are these programs teaching? The most common topics of education are environmental stewardship, which 88 percent of programs address; direct sales and marketing, which 85 percent of programs address; operations management, which 85 percent of programs address; and business planning and/or financial management, which 77 percent of programs address. Please refer to table 4 for details regarding the topics of education addressed by agricultural apprenticeship programs. It was surprising to find that 77 percent of programs, or 20 of 26, offer business and financial-related education, given that a survey of 38 apprenticeship programs, whose findings are presented in "Agrarian Apprenticeship," found that only 45 percent offer financial management and 55 percent offer

business planning (Pointeau, Sullivan, and Wentzel-Fisher 2016). This thesis' results may in part differ because I combined these two categories in my analysis. The top four topics of agricultural apprenticeship education are therefore the following: environmental stewardship, direct sales and marketing, operations management, and business planning and/or financial management, in that order.

Table 4. Topics of education within agricultural apprenticeship programs

	Topics of Education												
Program Name	Environmental Stewardship	Direct Sales and Marketing	Operations Management	Business Planning and/or Financial Management	Vehicle and Equipment Maintenance, Repair, and Operation	Agricultural Production	Building, Carpentry, and Tool Use	Homesteading and/or Value Added Production	Food and Social Systems	Public Communication and/or Volunteer Management	Biodynamic Philosophy, Principles, and Practice	Animal Processing	Social Justice
Dairy Grazing Apprenticeship	✓		✓	✓		✓							
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	✓	✓		✓	✓	✓	✓						
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	✓	✓				✓		✓					
North American Biodynamic Apprenticeship Program	✓			✓	✓	✓					✓		
Rogue Farm Corps FarmsNOW				✓		✓							
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	✓	✓	✓	✓	✓	✓							
Farm Education Resource Network (FERN) FarmReach	✓	✓	✓	✓	✓	✓	✓					✓	
Quivira Coalition New Agrarian Program	✓	✓	✓	✓	✓		✓						
Brown's Ranch Internship	✓	✓	✓	✓	✓	✓	✓					✓	
Caretaker Farm Apprenticeship Program	✓	✓	✓	✓	✓	✓				✓			
Full Belly Farm Internship		✓	✓			✓							
School of Adaptive Agriculture Practicum Student Program	✓	✓	✓	✓	✓		✓	✓					
Hawthorne Valley Farm Apprenticeship	✓	✓	✓	✓	✓		✓		✓	✓	✓		

Program Name	Environmental Stewardship	Direct Sales and Marketing	Operations Management	Business Planning and/or Financial Management	Vehicle and Equipment Maintenance, Repair, and Operation	Agricultural Production	Building, Carpentry, and Tool Use	Homesteading and/or Value Added Production	Food and Social Systems	Public Communication and/or Volunteer Management	Biodynamic Philosophy, Principles, and Practice	Animal Processing	Social Justice
Pie Ranch Apprenticeship Program	✓	✓	✓			✓			✓	✓			✓
Polyface, Inc. Apprenticeship	✓	✓	✓	✓	✓		✓						
The Seed Farm New Farmer Training Program	✓	✓	✓	✓	✓	✓	✓	✓					
Sisters Hill Farm Apprenticeship	✓	✓	✓	✓	✓		✓						
Vilicus Farms Registered Organic Farm Worker Apprenticeship	✓	✓	✓	✓	✓	✓	✓						
Berea College Farm Student Labor Program	✓	✓	✓	✓	✓	✓	✓	✓					
California Polytechnic State University (Cal Poly) Organic Farm	✓	✓	✓	✓									
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program			✓	✓	✓	✓				✓			
College of the Ozarks Agriculture Department	✓	✓	✓		✓								
Evergreen State College Organic Farm	✓	✓	✓	✓	✓	✓	✓	✓	✓				
Michigan State University Organic Farmer Training Program	✓	✓	✓	✓	✓	✓	✓		✓				
University of California, Davis Student Farm	✓	✓	✓										
Warren Wilson College Farm Crew	✓	✓	✓		✓		✓						

Program Name	Environmental Stewardship	Direct Sales and Marketing	Operations Management	Business Planning and/or Financial Management	Vehicle and Equipment Maintenance, Repair, and Operation	Agricultural Production	Building, Carpentry, and Tool Use	Homesteading and/or Value Added Production	Food and Social Systems	Public Communication and/or Volunteer Management	Biodynamic Philosophy, Principles, and Practice	Animal Processing	Social Justice
Total	23	22	22	20	19	17	14	5	4	4	2	2	1
Percentage (%)	88	85	85	77	73	65	54	19	15	15	8	8	4

Another surprising finding, since agricultural production is central to every farm, is that only 65 percent of agricultural apprenticeship programs state that agricultural production is an educational topic. This may be because programs feel this is an obvious component of sustainable agriculture education, so it was not explicitly mentioned. Another possibility is that the way in which data was collected for publication in "Agrarian Apprenticeship" may not have explicitly included survey options for programs to choose from related to agricultural production specifically. The Dairy Grazing Apprenticeship, for instance, does not list agricultural production-related topics as addressed in its program, according to "Agrarian Apprenticeship," yet documents on its website reveal that the program teaches about herd health and milk quality, among other production-related issues (Bureau of Apprenticeship Standards n.d.). Some programs do indicate in "Agrarian Apprenticeship" that production-related issues are covered, such as Berea College that lists "livestock health and management; horticultural production; [and] grain production" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 70). Overall, agricultural production is an educational topic addressed by a majority of agricultural apprenticeship programs according to this thesis' research.

This thesis found eight more topics of education within agricultural apprenticeship programs. Fifty-four percent of programs address building, carpentry, and tool use; 19 percent address homesteading and/or value added production; 15 percent address food and social systems; 15 percent address public communication and/or volunteer management; 8 percent address biodynamic philosophy, principles, and practice; 8 percent address animal processing; and 4 percent address social justice. Unfortunately, a major finding of this thesis research is that true comparisons across agricultural apprenticeship programs are very challenging due to the lack of consistency among programs in how measurable variables are defined. Whereas one

farm takes business planning to mean creating a business plan, assessing financial resources, and learning about insurance options, enterprise budgets and business structures (Seed Farm 2017), other farms may mean it to encompass a possible one-time topic covered during an apprentice's visit to a local farm (Collaborative Regional Alliance n.d.). (This could be another reason why a high percentage of apprenticeship programs were found to cover business planning and/or financial management.) In another example, 19 percent of programs address "building, carpentry, and tool use" but only 1 program in this category, the School of Adaptive Agriculture Student Program, includes engine repair and the industrial arts of welding, plumbing, and electricity. Thus apprenticeship programs teaching any educational topic are not consistently teaching the same material or skills.

Not only do educational topics connote different education in practice depending on the program, but some programs in "Agrarian Apprenticeship" list all potential educational topics they cover, rather than those that a given apprentice in any given year is guaranteed to be taught. For example, "Agrarian Apprenticeship" includes "vehicle and equipment maintenance, repair, and operation" as a focus area of the Dairy Grazing Apprenticeship Program, but an excerpt of their training guidelines available from their website denotes this area as "OPTIONAL: Maintain Grazing Machinery, Facilities and Equipment" (Bureau of Apprenticeship Standards n.d.). Data collected from nonprofit hubs provides a good overview of potential apprentice educational opportunities, but these opportunities are not necessarily applicable to all farms participating in the larger nonprofit-managed program. As one agricultural apprenticeship program puts it, what is taught and learned is dependent on the needs of the farm as well as the skills and interests of the apprentice (Vilicus Farms 2017). After all, "ongoing instruction and learning in-depth skills [are] unique to the host farmer's operation" (Foundation 2016). The inclusion of possible,

rather than definitive, topics of education in apprenticeship programs' materials makes it very difficult to know what an apprentice will actually learn, rather than what they might learn.

"Curriculum" is a term that needs clarification within agricultural apprenticeship programs. The informational guidebook used as a basis for this research did not distinguish between formal or informal curriculum, yet this research indicates that it is important to separate the two in order to better understand what agricultural apprenticeship programs, both individually and on the whole, believe constitutes curriculum. Authors of "Agrarian Apprenticeship" from the Quivira Coalition's New Agrarian Program advise farmers hosting apprentices with the following:

> A curriculum is a course of study required for students who wish to qualify for a particular profession or field of endeavor. Knowing this, we can wrap ourselves around the question: What are the skills a person needs in order to run a ranch or farm like yours? Make a list of those skills, and you are on your way to having a curriculum! (Pointeau, Sullivan, and Wentzel-Fisher 2016, 92)

Several farms which include "curriculum (formal or informal)" as an educational component they provide in "Agrarian Apprenticeship," do not appear to meet this basic definition. One farm described as already having a curriculum responded to the question, "What additional resources would be especially helpful?" with the answer, "A farm-specific written list of everything that an apprentice should learn in a year" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 65). If this farm does not have such a list, why is it characterized as having a curriculum, and what is it teaching?

Agricultural apprenticeship programs appear to disagree on whether or not a curriculum—not to mention what form and scope that curriculum might take—are necessary or desirable. A farm that characterizes its apprenticeship program on its website as "education-filled, and…the equivalent to a year at a trade school or college" (Rohner Design 2017) also says

that its top challenge is "Our program is a learn-by-doing program without a formal curriculum," and that it would find "A written check off list that would tell me everything that I want them to learn in the year that they are here" particularly helpful (Pointeau, Sullivan, and Wentzel-Fisher 2016, 49). This latter statement implies that even an informal curriculum is lacking, despite the fact that the experience is equated to one at a trade school or college. Examples such as this are not meant to criticize specific farms, but to call attention to the need for more careful consideration and deeper interrogation of the language used in describing agricultural apprenticeships. This would help minimize confusion about what these programs provide in return for apprentices' labor. It was beyond the scope of this thesis to study specific programs' curricula; doing so would provide better insight into what apprentices are actually being taught, what they are not, and how programs could improve their curricula.

Curriculum, and accordingly the scope of education, of agricultural apprenticeship programs within higher education institutions is an area that takes on different meaning due to the academic context. As was mentioned in this chapter's "The Goals of Agricultural Apprenticeship Programs" section, academic programs can and do have significant differences,[6] but in many cases the education they offer apprentices is more far-reaching than that offered through other programs, simply due to their affiliation with four-year degree programs. This is not to imply that apprenticeship education offered at academic institutions is necessarily better or to make claims regarding its usefulness for aspiring farmers, but to point out that a comprehensive analysis of the scope of education offered at these institutions was beyond the purview of this thesis. A more in-depth analysis of what is exchanged would require greater

6. Not all participants in "academic" agricultural apprenticeship programs are students of the affiliated college or university, for instance. In these cases, apprentices are not part of a four-year degree program.

study of the skills and knowledge acquired by apprentices who are concurrently enrolled in an academic institution's apprenticeship program and any number of fields of study.

Compensation and Tuition

Compensation and tuition are two sides to the same coin in agricultural apprenticeships, paralleling the coexistence of labor and education within the apprenticeship model. Fifty-eight percent of the twenty-six programs assessed in this research provide a stipend to apprentices and 15 percent pay wages; refer to table 5 for agricultural apprenticeship programs' monetary compensation and fees. Another 12 percent, three programs facilitated by nonprofit hubs, say that the farms within their programs possibly provide a stipend, while 8 percent, or two programs facilitated by nonprofit hubs, say that the farms within their programs possibly pay wages. One additional program coordinated by a nonprofit farm possibly pays wages and is a special case that will be discussed later. As in every area of agricultural apprenticeships this thesis sought to understand, financial compensation is handled in numerous ways and called different names depending on the program and individual farm.

Table 5. Agricultural apprenticeship programs providing monetary compensation to apprentices and/or requiring fees from apprentices

		Compensation and Fees		
Program Name	Type of Affiliated Organization	Stipend	Fee	Wage
Dairy Grazing Apprenticeship	Nonprofit Hub	✓		
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	Nonprofit Hub	Possibly[a]		
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	Nonprofit Hub	Possibly		

Program Name	Type of Affiliated Organization	Stipend	Fee	Wage
North American Biodynamic Apprenticeship Program	Nonprofit Hub	Possibly	✓	Possibly
Rogue Farm Corps FarmsNOW	Nonprofit	✓		Possibly
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	Nonprofit Hub	✓		
Farm Education Resource Network (FERN) FarmReach	Nonprofit Hub	✓	✓	
Quivira Coalition New Agrarian Program	For-profit Independent Farm	✓		
Brown's Ranch Internship	For-profit Independent Farm	✓		
Caretaker Farm Apprenticeship Program	For-profit Independent Farm	✓		
Full Belly Farm Internship	Nonprofit	✓		
School of Adaptive Agriculture Practicum Student Program	Nonprofit		✓	
Hawthorne Valley Farm Apprenticeship	Nonprofit	✓		
Pie Ranch Apprenticeship Program	For-profit Independent Farm	✓	✓[b]	
Polyface, Inc. Apprenticeship	Nonprofit	✓		
The Seed Farm New Farmer Training Program	Nonprofit		✓	Possibly
Sisters Hill Farm Apprenticeship	For-profit Independent Farm	✓		
Vilicus Farms Registered Organic Farm Worker Apprenticeship	Academic	✓[c]		
Berea College Farm Student Labor Program	Academic			✓
California Polytechnic State University (Cal Poly) Organic Farm	Nonprofit (Within Academic Institution)	✓	✓	

Program Name	Type of Affiliated Organization	Stipend	Fee	Wage
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program	Academic	✓		
College of the Ozarks Agriculture Department	Academic		✓	✓
Evergreen State College Organic Farm	Academic		✓	✓
Michigan State University Organic Farmer Training Program	Academic		✓	
University of California, Davis Student Farm	Academic		Possibly[d]	
Warren Wilson College Farm Crew	Academic		✓	✓
Total[e]		15	10	4
Percentage[e] (%)		58	38	15

[a]In the case of nonprofit hubs, "Possibly" indicates that provision of compensation is dependent on, and thus unique to, the farm at which an apprentice is placed, rather than the nonprofit hub facilitating the agricultural apprenticeship program.

[b]This fee is not necessarily collected from apprentices; rather it is taken out of the compensation provided to apprentices, reducing the stipend amount.

[c]Vilicus Farms refers to the stipend they provide as a "salary" (Vilicus Farms n.d.).

[d]Whether or not a fee is charged depends on whether or not the apprentice seeks to earn academic credit.

[e]Does not include programs that "Possibly" provide a stipend or wages or "Possibly" charge fees

Based on the thirteen programs whose financial compensation provided to apprentices I was able to determine, usually from their website, money paid apprentices ranges from $500 per month (Polyface, Inc. n.d.) to $2,500 per month (Stone Barns Center 2017). The $2,500 per month stipend is an outlier,[7] with the next highest monthly stipend being $1,746 per month (Sisters Hill Farm 2017) and then $1,500 per month (Polyface, Inc. n.d.; Vilicus Farms n.d.). At one farm offering it, the $1,500 per month stipend is a possibility, not a certainty, where the "starting stipend" is "$500 per month, with performance advances up to $1,500 per month" (Polyface, Inc. n.d.). A second farm paying $1,500 per month refers to this stipend as a "salary" (Vilicus Farms n.d.), and also says it pays up to $2,500 annually in educational expenses (Vilicus Farms 2017). How much apprentices can expect to be paid varies from farm-to-farm and is not always clear in programs' materials.

Interestingly, some agricultural apprenticeship programs say that they pay wages but concurrently name and pay these wages in the form of a stipend. This may be because workers paid an hourly wage earn more money when they work longer hours, whereas apprentices paid in the form of a stipend are unlikely to earn more money when they work longer hours; in other words, their stipend remains the same. This is important because farming often involves long hours, and it is not clear if agricultural apprenticeship programs take apprentices' hours worked into account when making claims about stipends that pay particular hourly wages. Reported wages range from the federal minimum wage of $7.25 per hour (Warren Wilson College 2017) to $9.70 per hour (Sisters Hill Farm 2017). The Dairy Grazing Apprenticeship states that it pays at least $8 per hour as required through its federally registered apprenticeship program, "but

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7. It is worth noting that although this program terms its financial compensation a "stipend," it reports in "Agrarian Apprenticeship" that its stipend pays at least minimum wage (Pointeau, Sullivan, and Wentzel-Fisher 2016, 39), and in this way shows that it has given consideration to meeting minimum wage requirements. This stipend is also meant to include the cost of local housing since housing is not provided by the program directly.

generally pay[s] more to retain good apprentices" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 28). The only programs that pay true wages, i.e., those that are not paid in the form of a stipend, are those offered by some academic institutions.

Which agricultural apprenticeship programs charge fees to apprentices, and is there a correlation between fees charged and financial compensation provided to apprentices in the form of a stipend and/or wages? In all but two cases where apprentices are asked to pay some sort of fee, there is a strong correlation between financial compensation and that fee, which will be explored shortly. The two exceptional cases are the North American Biodynamic Apprenticeship Program (NABDAP) and The Farm Education and Resource Network's (FERN's) FarmReach Program. NABDAP asks apprentices to pay a $100 enrollment fee, (which concurrently grants one-year membership into the Biodynamic Association), as well as varying tuition fees based on the classroom component of their choosing (Biodynamic Association 2016). Some scholarship funds are available to partially cover classroom tuition. FERN does not provide details on its website, but states in "Agrarian Apprenticeship" that apprentices pay program tuition and also receive a stipend (Pointeau, Sullivan, and Wentzel-Fisher 2016). Additional programs that charge tuition and/or a fee, with a stronger correlation between the two, are:

- The Seed Farm, which charges tuition but offers substantial merit and needs-based scholarships and pays no apprentice stipend, positing itself completely as an educational program. If apprentices apply to work in addition to the twenty hours per week of structured training the program provides on its farm, they are paid a wage for these additional hours.

- The School of Adaptive Agriculture, which charges $2500 tuition for a fourteen-week course and an additional $1500 for optional room and board, paying no apprentice stipend and positing itself completely as an educational program.
- The Organic Farmer Training Program at Michigan State University, which charges $3600 in tuition and is likely to incur about $300 more in charges for books and materials, according to the program. It does not pay an apprentice stipend, positing itself completely as an educational program.
- Several colleges and universities, which do not necessarily charge fees specific to apprentices, but do charge tuition for attendance and conferment of a college degree. Apprentices may receive a stipend, wages, or, if enrolled at a work college, wages that go toward the cost of tuition.
- Pie Ranch, which may appear on the surface to operate as many other apprenticeship programs do, paying apprentices a $600 monthly stipend and an additional $100 health benefits stipend, but has actually determined that it pays apprentices a living wage after the value of housing, food, and tuition are included in compensation (Pie Ranch 2015; Reis 2014).[8]

Pie Ranch is one of only a few farms in the country that is Food Justice Certified through The Agricultural Justice Project, a nonprofit that advocates for labor justice (Agricultural Justice Project 2017). The Food Justice Certification program aims "to change relationships among the people who work on farms and to gain fair prices and agreements for farmers so that they can pay living wages to their workers and to themselves" (Wadsworth and Henderson 2016). An

8. The Agricultural Justice Project defines a living wage "as the net wage earned during a country's legal maximum work week, but not more than 48 hours, that provides for the needs of an average family unit (nutrition, clothing, health care, education, potable water, child care, transportation, housing, and energy), plus savings (10 percent of income)…A living wage can be inclusive of non-monetary fringe benefits" (Sligh et al. 2012, 26).

agricultural apprenticeship program that seemingly compensates apprentices similarly to Pie Ranch may have a very different thought process for doing so—another example of how compensation provided and fees charged apprentices may differ dramatically depending on the program and its host farmers' personal rationale.

Housing and food are common means of compensation in agricultural apprenticeships. Out of the twenty total agricultural apprenticeship programs evaluated in this regard,[9] 60 percent provide food. Twelve programs provide food from the farm to meet at least some of apprentices' needs, while another 5 possibly provide food depending on the host farm, and 1 provides food for an additional fee. Refer to table 6 for details regarding the non-monetary forms of compensation provided by apprenticeship programs. Within these same twenty programs, 50 percent provide housing. Ten programs provide housing, 5 possibly provide housing depending on the host farm, and 1 provides housing for an additional fee. Room and board are two of the most common additional forms of compensation provided to agricultural apprentices.

9. It was beyond the scope of this thesis to evaluate housing and meal options at academic institutions.

Table 6. Agricultural apprenticeship programs providing non-monetary forms of compensation to apprentices

		Compensation					
Program Name	Type of Affiliated Organization	Workers' Compensation Insurance	Food[a]	Housing	Paid Vacation	Disability Insurance	Health Insurance
Dairy Grazing Apprenticeship	Nonprofit Hub	✓	✓	Possibly[b]	✓		✓
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	Nonprofit Hub	✓	Possibly	Possibly			
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	Nonprofit Hub		Possibly	Possibly			
North American Biodynamic Apprenticeship Program	Nonprofit Hub	✓	Possibly	Possibly			
Rogue Farm Corps FarmsNOW	Nonprofit Hub	✓	Possibly	Possibly			
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	Nonprofit	✓	✓		✓	✓	
Farm Education Resource Network (FERN) FarmReach	Nonprofit Hub		✓	✓			
Quivira Coalition New Agrarian Program	Nonprofit Hub	✓	Possibly	✓	Possibly		
Brown's Ranch Internship	For-profit Independent Farm	✓	✓	✓			
Caretaker Farm Apprenticeship Program	For-profit Independent Farm	✓	✓	✓	✓		
Full Belly Farm Internship	For-profit Independent Farm	✓	✓	✓			
School of Adaptive Agriculture Practicum Student Program	Nonprofit		Possibly[c]	Possibly[c]			
Hawthorne Valley Farm Apprenticeship	Nonprofit	✓	✓	✓	✓		

Program Name	Type of Affiliated Organization	Workers' Compensation Insurance	Food[a]	Housing	Paid Vacation	Disability Insurance	Health Insurance
Pie Ranch Apprenticeship Program	Nonprofit	✓	✓	✓	✓		
Polyface, Inc. Apprenticeship	For-profit Independent Farm	✓	✓	✓			
The Seed Farm New Farmer Training Program	Nonprofit						
Sisters Hill Farm Apprenticeship	Nonprofit	✓	✓	✓			
Vilicus Farms Registered Organic Farm Worker Apprenticeship	For-profit Independent Farm	✓	✓	✓			
Berea College Farm Student Labor Program	Academic	✓	Not Evaluated	Not Evaluated			
California Polytechnic State University (Cal Poly) Organic Farm	Academic		Not Evaluated	Not Evaluated			
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program	Nonprofit (Within Academic Institution)		✓				
College of the Ozarks Agriculture Department	Academic	✓	Not Evaluated	Not Evaluated			
Evergreen State College Organic Farm	Academic		Not Evaluated	Not Evaluated			
Michigan State University Organic Farmer Training Program	Academic						
University of California, Davis Student Farm	Academic		Not Evaluated	Not Evaluated			
Warren Wilson College Farm Crew	Academic		Not Evaluated	Not Evaluated			
Total[d]		16	12	10	5	1	1
Percentage (%)		62	60[e]	50[e]	19	4	4

[a]"✓" in this column indicates that the agricultural apprenticeship program provides some, not necessarily all, food that an apprentice needs.

[b]In the case of nonprofit hubs, "Possibly" indicates that provision of compensation is dependent on, and thus unique to, the farm at which an apprentice is placed, rather than the nonprofit hub facilitating the agricultural apprenticeship program.

[c]Apprentices are required to pay an additional fee for housing and food in this apprenticeship program.

[d]Does not include programs that "Possibly" provide particular forms of compensation

[e]This percentage was calculated based on the evaluation of 20, rather than 26, agricultural apprenticeship programs, since academic programs were excluded.

Other non-monetary forms of compensation that agricultural apprentices may receive are workers' compensation insurance, health insurance, disability insurance, and paid or unpaid vacation time. Workers compensation is provided by 62 percent of the twenty-six apprenticeship programs in this study. It is worth noting that although described as "apprentice compensation" in "Agrarian Apprenticeship," workers' compensation may be mandated by law, differing from state-to-state (National Federation 2015). A much smaller number of apprenticeship programs offer health insurance, only one, the federally registered Dairy Grazing Apprenticeship (Dairy Grazing Apprenticeship 2016a).[10] Pie Ranch provides a $100 health stipend, while one other farm mentions health insurance available for purchase with government subsidies: "All apprentices will be eligible to purchase state-subsidized insurance through Commonwealth Care. Eligibility is dependent on income" (Silverman n.d.). One program, the Stone Barns Center for Food and Agriculture's Growing Farmers Initiative, provides short-term disability insurance. Five programs give paid vacation time and one program, the Quivira Coalition New Agrarian Program, says that five days of paid vacation time are a possibility. Finally, several agricultural apprenticeship programs—in addition to most programs at academic institutions—offer an

10. Further research may be needed to clarify whether or not apprentices enrolled at academic institutions receive benefits such as health insurance as students of the institution.

option of earning academic credit through a partnership with a nearby college or university, but for the additional cost of tuition. These programs are the Maine Organic Farmers and Gardeners Association Farm Apprenticeship (Maine Organic Farmers 2017), the Rogue Farm Corps FarmsNOW (Rogue Farm Corps n.d.), and the School of Adaptive Agriculture Practicum Student Program (Grange School n.d.). These are the additional forms of compensation sometimes given to agricultural apprentices.

Evaluation and Next Steps

The final set of agricultural apprenticeship practices this thesis examined include programs' evaluation of outcomes. This thesis found that 81 percent of programs use skill assessment checklists as a guide in what apprentices should learn and if they are meeting these goals, while 77 percent of programs use formal evaluations to gauge apprentices' progress and learning; refer to table 7 for the forms of evaluation used by agricultural apprenticeship programs. Nineteen percent of programs conduct check-in meetings over the course of the apprenticeship. The Dairy Grazing Apprenticeship and other nonprofit hubs such as the Biodynamic Association, Farm Education Resource Network, and Quivira Coalition, often have at least one staff person that can help facilitate evaluations and manage the apprentice-farmer relationship (Dairy Grazing Apprenticeship 2016a; Biodynamic Association 2016; Farm Education Resource Network 2017; Quivira Coalition 2017). Nineteen percent, or 5 of 26 programs, conduct host farmer evaluations. It is possible, however, that this number might be higher if information regarding course instructor evaluations was included in the data I looked at for agricultural apprenticeships at academic institutions. Unfortunately, the lack of farmer evaluations means that host farmers are unlikely to be assessed in terms of their progress or effectiveness as educators, amongst other factors. Agricultural apprenticeship programs should

consider evaluating the abilities of farmer hosts in addition to those of apprentices, especially when making claims concerning their role as mentors and educators.

Table 7. Agricultural apprenticeship programs utilizing evaluation

		Forms of Evaluation			
Program Name	Type of Affiliated Organization	Skill Assessment Checklist	Formal Evaluation of Apprentice(s)	Check-in Meetings	Formal Evaluation of Host Farmer(s)
Dairy Grazing Apprenticeship	Nonprofit Hub	✓	✓		
Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Intern Program	Nonprofit Hub	✓	✓		✓
Maine Organic Farmers and Gardeners Association Farm Apprenticeship	Nonprofit Hub			✓	
North American Biodynamic Apprenticeship Program	Nonprofit Hub	✓	✓	✓	✓
Rogue Farm Corps FarmsNOW[a]	Nonprofit Hub				
Stone Barns Center for Food and Agriculture Growing Farmers Initiative	Nonprofit	✓			
Farm Education Resource Network (FERN) FarmReach	Nonprofit Hub	✓	✓		✓
Quivira Coalition New Agrarian Program	Nonprofit Hub	✓	✓	✓	
Brown's Ranch Internship	For-profit Independent Farm				
Caretaker Farm Apprenticeship Program	For-profit Independent Farm	✓	✓	✓	✓
Full Belly Farm Internship	For-profit Independent Farm				

Program Name	Type of Affiliated Organization	Skill Assessment Checklist	Formal Evaluation of Apprentice(s)	Check-in Meetings	Formal Evaluation of Host Farmer(s)
School of Adaptive Agriculture Practicum Student Program	Nonprofit		✓		
Hawthorne Valley Farm Apprenticeship	Nonprofit	✓	✓	✓	
Pie Ranch Apprenticeship Program	Nonprofit	✓	✓		
Polyface, Inc. Apprenticeship	For-profit Independent Farm	✓	✓		
The Seed Farm New Farmer Training Program	Nonprofit	✓	✓		
Sisters Hill Farm Apprenticeship	Nonprofit	✓	✓		
Vilicus Farms Registered Organic Farm Worker Apprenticeship	For-profit Independent Farm	✓	✓		
Berea College Farm Student Labor Program	Academic	✓	✓		
California Polytechnic State University (Cal Poly) Organic Farm	Academic	✓	✓		
Center for Environmental Farming Systems Sustainable Agriculture Apprenticeship Program	Nonprofit (Within Academic Institution)	✓	✓		
College of the Ozarks Agriculture Department	Academic	✓	✓		
Evergreen State College Organic Farm	Academic	✓	✓		
Michigan State University Organic Farmer Training Program	Academic	✓	✓		
University of California, Davis Student Farm	Academic	✓			
Warren Wilson College Farm Crew	Academic	✓	✓		✓
Total		21	20	5	5
Percentage (%)		81	77	19	19

[a]As explained in Chapter Three, "Methodology and Methods," I was unable to determine some information about the Rogue Farm Corps' FarmsNOW because it is not clear on the Rogue Farm Corps' website or in "Agrarian Apprenticeship" (Pointeau, Sullivan, and Wentzel-Fisher 2016) what information pertains to the FarmsNOW versus FarmsNEXT program. For this reason, I am unsure which, if any, forms of evaluation this apprenticeship program uses.

This research also looked at the extent to which agricultural apprenticeship programs engage with apprentices post-apprenticeship. Upon completion of an apprenticeship, three programs offer the possibility to connect participants to land and other resources needed to start one's own farm: the Dairy Grazing Apprenticeship, the Seed Farm New Farmer Training Program, and Polyface, Inc.'s Apprenticeship (Dairy Grazing Apprenticeship 2016a; Seed Farm n.d.; Polyface, Inc. n.d.). Participation in the Dairy Grazing Apprenticeship culminates in the transfer of land between apprentice and Master Dairy Grazier, and participation in The Seed Farm's apprenticeship results in access to "the incubator portion of the Seed Farm," depending on demonstration of skills and a sound business plan developed over the training season (Seed Farm n.d.). "Resources available to incubator farmers include: one to three acres of land; cooler, greenhouse, and dry storage space; tractors and implements; wash/pack facilities; and a water and irrigation system," plus mentoring and marketing assistance (Seed Farm n.d.). Polyface, Inc., "depending on needs and opportunities…offers numerous team spots for full employment, subcontracting or symbiotic entrepreneurship. Numerous interns are now managing complete farms, as self-employed entrepreneurs, under the Polyface umbrella" (Polyface n.d.). A fourth program concludes that its apprenticeship is "a journey that culminates in a career as a highly skilled and valued farm team member or farm/enterprise manager at Vilicus Farms or on another operation. Launching as an independent farm owner/operator is also a possibility with additional curriculum and on-farm training," which this farm is in the process of developing (Vilicus Farms 2017). Overall, opportunities for apprentices to be granted access to land and/or resources upon

completion of the program are rare, with many programs expressing a desire to help apprentices as best they can, but lacking a systematic solution for doing so and citing challenges in connecting apprentices to land and capital.

Key Findings

Research for the second question of this thesis identified the practices of agricultural apprenticeships in the United States. This thesis' findings drew on the explicit practices of agricultural apprenticeship programs to draw broad themes. This information makes it possible to see what apprenticeship programs on the whole prioritize through their actions. Key findings concerned the role of education and labor, compensation and tuition, and evaluation and post-apprenticeship support in praxis.

Agricultural apprenticeships almost unanimously utilize hands-on training as a form of apprentice education, followed by field workshops, farm tours, classroom components, farmers market experience, and more. The least popular forms of apprentice education are farm journaling and individual business advising. As far as what apprentices are taught, rather than how, they are most commonly taught on the topics of environmental stewardship, direct sales and marketing, operations management, and business planning and/or financial management. The least popular topic of apprentice education, addressed by only one program, is social justice. Many other forms and topics of education fall somewhere between the most and least popular, contributing to high variability in how and what agricultural apprenticeships teach.

Apprenticeship programs also address apprentice compensation and tuition in highly variable ways. For example, some programs provide monetary compensation to apprentices, others charge tuition, and still others do both. Regarding monetary compensation, 58 percent of programs provide a stipend, while 15 percent provide a wage. Future research could look at why

stipends are often paid even when programs describe the compensation provided in terms of wages. Additional research could also look at how programs that require tuition and do not pay a stipend differ in terms of education and labor from those programs that do not require tuition and do pay a stipend. Regarding non-monetary compensation, half or more of programs provide workers' compensation, food, and housing, while disability or health insurance are very seldom offered.

Finally, do agricultural apprenticeships measure their success in educating apprentices? Eighty-one percent of programs use skills checklists to gauge learning outcomes, followed by 77 percent using formal evaluations. Only a few programs regularly check in with apprentices throughout the experience, though, or evaluate host farmers at any point in the process. Also rare is assisting apprentices, post-apprenticeship, with accessing land or resources to start one's own farm. Overall, much more specificity is needed in order to make good comparisons across apprenticeship programs—and for apprentices themselves to better understand program expectations before engaging in this labor relation. This includes how the various goals and practices of agricultural apprenticeships are defined and measured, since this research showed inconsistency in how programs use terms. The next section uses the available data concerning goals and practices to evaluate the extent to which agriculture apprenticeships contribute to oppression and impede or achieve social justice.

Agricultural Apprenticeships and Social Justice

The third research question of this thesis asks: To what extent do the labor relations of agricultural apprenticeships in the United States achieve social justice? Labor relations is defined as the relationship between management and employees, and the structural conditions shaping this relationship. I used Iris Marion Young's (1990) "five faces of oppression" to

explore the extent to which agricultural apprenticeships contribute to oppression in the form of powerlessness, exploitation, marginalization, cultural imperialism, and violence. Young (1990) explains that oppression is a condition experienced by social groups, and that various concepts and conditions create oppression in different ways for social groups and the individuals who identify with them. It is important to remember that "the conscious actions of many individuals daily contribute to maintaining and reproducing oppression, but those people are usually simply doing their jobs or living their lives, and do not understand themselves as agents of oppression," (Young 1990, 56). As a result, there is not necessarily an oppressing group for every oppressed group, since oppression is structural and often unintentional, but there *is* a privileged group for every oppressed group (Young 1990). Since individuals can belong to multiple groups, they may be privileged in some respects and oppressed in others. This may apply, for instance, to small-scale farmers and their apprentices, both of whom may be privileged in some ways and oppressed in others.

Based on Young's (1990) interpretation, the five faces of oppression this thesis engaged are defined as follows, overlapping at times in the ways they interact with individuals' lives:

- Powerlessness: Lack of decision-making ability that hinders the development and exercise of skills and confers less respectability within society
- Exploitation: The labor of one group and its results is systematically transferred to another group for the latter's benefit
- Marginalization: A group is deemed unfit for the labor system, resulting in the inability to fully participate in social life

- Cultural imperialism: A dominant group's experience, culture, and meanings are established as the norm, "othering" the cultures of less dominant groups while subjecting these groups to stereotypes and invisibility
- Violence: Physical attacks or "less severe incidents of harassment, intimidation, or ridicule" directed at people solely for being members of a particular group (Young 1990, 68)

Exploring the extent to which agricultural apprenticeships achieve social justice using these five forms of oppression as a lens necessitated a comparison of the labor relations of agricultural apprenticeships with the labor relations of other types of agricultural work. This was in part because my methodological approach recognizes the significant role of history and society in shaping the present, i.e., the historical and contemporary conditions of farm labor in shaping the agricultural apprenticeships of today, and because my research caused me to question if and how agricultural apprenticeships affect the oppression of other types of agricultural laborers. In this thesis section, I use the term "farmworker(s)" to refer to agricultural laborers who are not apprentices. I used the five forms of oppression as a basis for studying how agricultural apprenticeships achieve social justice for apprentices and farmworkers alike.

Powerlessness

Based on Young's (1990) description, I defined powerlessness as the lack of decision-making ability that hinders the development and exercise of skills and confers less respectability within society. Agricultural apprenticeships contribute to oppression in the form of powerlessness by prioritizing farmers' needs over farmworkers', promoting farmers' values through agrarian ideology, and maintaining apprenticeships as short-term, temporary labor relations.

Farmers First

The sustainable agriculture movement reproduces American society's agrarian idealism that respects and reveres farmers—especially "family" farmers—at the expense of overlooking farmworkers. In essence, members of the movement tend to equate small-scale agriculture with the social good that they believe this type of production embodies by supporting family farmers (Guthman 2014). This is being replicated in some ways through the movement's agricultural apprenticeships.

The second most common goal of agricultural apprenticeships, according to the findings of this thesis' first research question, is to train future farmers; only one program offers training to become a farmworker. In the latter case, various indicators point to this being for the benefit of the farm owners who seek a skilled labor force. This particular program, while unique in its focus on farm work rather than farm ownership or management, is offered by a farm that states as one of its main goals to "promote the standing of professional farmers in society" (Vilicus Farms 2017). This farm takes its name from the Latin term for land steward, chosen over the Latin term for land laborer. As the farm's website explains, "While vilici were often freed-slaves, they were held in high regard by the landowners and by Roman society. They were said to be slaves, no longer to their previous owners, but to the land with which they were entrusted" (Vilicus Farms 2017). Language like this romanticizes farmers in direct juxtaposition to less seemly farm-laborers, and perpetuates a discourse that not only acknowledges, but glorifies, farmers' self-exploitation. Further, this farm's "Farm Worker Apprenticeship" is situated within a larger program that ultimately seeks to help apprentices become farmers and farm owners. In "Agrarian Apprenticeship," there is not even any mention of the "Farm Worker Apprenticeship" by that name; Vilicus Farms' apprenticeship opportunities are posited only as a multi-series

means to farm management and farm enterprise development (Pointeau, Sullivan, and Wentzel-Fisher 2016). One other program mentions farmworker employment as a potential outcome of an agricultural apprenticeship, explaining that apprenticeships are "a way for us to vet future team members. That reduces the oopses often encountered in new hires" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 57). At this farm, as at the last, training that creates skilled farmworkers is a way for the farm to meet its labor needs, rather than a way to train the next generation of farmworkers. This contributes to apprentice and farmworker powerlessness by elevating the status and needs of farmers over farm laborers and by implying that only farmers are stewards of the land.

One of the least common goals of agricultural apprenticeships is social justice, a troubling finding for several reasons to anyone who values social justice within the alternative food movement. It is disconcerting that programs do not include social justice as a goal because agricultural workers within capitalism have always been part of a system relying on exploitation, and this system affects labor relations on all farms; because agrarian idealism connects small-scale farms with social good (Guthman 2014), an image that farmers financially benefit from; and because multiple concerns about agricultural apprenticeships specifically have been raised by apprentices, farmers, and scholars. Farmers do not make an explicit commitment to social justice and to addressing concerns surrounding agricultural apprenticeships or other farm labor relations. This enhances the powerlessness of apprentices and farmworkers by ignoring their needs in programmatic goals and by perpetuating this silence through apprentices who become farmers and model the goals (and practices) of the farmers from whom they learned.

Another way in which agricultural apprenticeship programs empower farmers rather than apprentices is by typically including farmers in apprenticeship development and excluding

prospective or current apprentices. This is most obvious at for-profit farms that employ apprentices independently or through the facilitation of a nonprofit hub. In many if not all instances, these hubs are created by farmers or by those looking to support farmers, and as such are heavily oriented toward farmers' needs and interests. For example, the Farm Education Resource Network (FERN) was "created in 2010 by Southern Arizona farmers" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 40). FERN farmers "believe that farms must be sustainable not only in their ecological practices, but also in their economic practices. We believe farmers deserve fair compensation for their goods and services" (Farm Education Resource Network 2017). There is no mention of economic practices that fairly compensate apprentices or farmworkers. Similarly, the Dairy Grazing Apprenticeship was "created by and for farmers" through a partnership between government agencies and a producer-run nonprofit (Dairy Grazing Apprenticeship 2016a; Dairy Grazing Apprenticeship 2016b). In order to achieve social justice, agricultural apprenticeship programs should be developed in partnership with prospective and current apprentices and farmworkers, and be designed in farmers', apprentices', and farmworkers' best interest.

Some academic programs involve students in the creation and development of agricultural apprenticeships. Academic institutions have different goals than for-profit or nonprofit farms, usually valuing labor as supplemental to education as opposed to education as supplemental to labor. In the context of agricultural apprenticeships, increased student involvement is directly connected to not only what these programs strive to accomplish, but how they do so. Student Farms at both Michigan State University and University of California Davis were started by students themselves in order "to apply what they were learning in their classes in the context of a working farm" (Michigan State 2015) and "to explore and learn about alternative

farming and gardening through shared physical work, experimentation, and problem solving," respectively (Regents of the University n.d.). At Michigan State University:

> From the beginning, the aim of the farm was to provide a place where students could come and volunteer, work, visit, and have input on the development of the land and farm…As the farm developed, it became clear that many students wanted the farm to offer a more formal approach to learning about organic farming. The Organic Farmer Training Program was a production of the evolution of the ideas and vision held by the original group of students and faculty and all those who have come since then. (Michigan State 2015)

At Warren Wilson College, the Work Program Advisory Committee reserves one seat for a student representative to aid in the committee's role revising policies and procedures (Warren Wilson College 2017). Not all academic programs develop with student assistance, but some schools have shown that students can and should be integral in creating their experience.

In contrast to academic programs that may rely on curriculum as the foundation upon which to structure hands-on work, independent farms as well as nonprofit hubs facilitating apprenticeships may rely on needed hands-on work to dictate what skills apprentices will learn. It may appear obvious to farmers that "specific activities will be dependent upon the operations needed for any given season" (Vilicus Farms n.d.). It is less obvious, however that apprentices can expect any guarantees of learning outcomes or expect to learn similar skillsets apprenticing on similar types of farms, or that skills will be transferrable from one farm to the next. (An exception is the Dairy Grazing Apprenticeship, which uses a similar curriculum for all host farms.) Some programs try to tailor learning to the individual apprentice, but ultimately it is the demands of the farm operation that dictate what will be addressed in for-profit and sometimes nonprofit agriculture, and in nonprofit hub apprenticeship programs that leave these decisions to host farmers. Further, despite not playing any part in program development or outcomes, apprentices are sometimes "strongly encouraged…[to] shape your own educational experience to

what you hope to learn. Remember to…create the experience you desire. RFC and our host farmers provide the environment for learning, you create the experience" (RFC 2017). This statement places responsibility for creating the experience with the apprentice, despite granting apprentices no built-in way to actually do so either before or during the apprenticeship. In effect, farmers are given a seat at the table to devise agricultural apprenticeships that meet their needs, while apprentices are not given a seat but told it must be their fault if the apprenticeship is not what they desired. More collaboration, coordination, and apprentice involvement is needed to develop agricultural apprenticeships with consistent and transferrable learning outcomes.

Agrarian Ideology

The alternative food movement generates and perpetuates discourse that working on a farm is the only way to learn how to farm. As the director of the Rogue Farm Corps has written, "As anyone who has farmed before knows, you cannot teach farming in a classroom. You have to work on a farm to learn farming" (O'Neill 2011). When an opportunity such as agricultural apprenticeships is presented as the only way to become a farmer, this gives those developing this opportunity more control because prospective apprentices and aspiring farmers may believe that they have no choice but to pursue an apprenticeship if they want to farm. This discourse goes further to elevate the status of apprenticeships on for-profit farms. Take, for example, the definition of "apprenticeship" in "Agrarian Apprenticeship." This definition says that agricultural apprenticeships "include[e] hands-on experience in a real-life work setting" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 21). All apprenticeship programs occur in real life, so the reader is left to assume that here "a real-life work setting" means a commercial, or for-profit, farm (despite the inclusion of for-profit, nonprofit, and academic farms in "Agrarian Apprenticeship"). Discourse such as this implies that "real" farming is always for-profit,

discouraging engagement in and creation of nonprofit and academic farm models and the more diverse goals they pursue (see "The Goals of Independent Farms, Nonprofit Hubs, and Academic Institutions Offering Agricultural Apprenticeship Programs" section). It also echoes agrarian ideology's populist roots in the esteemed virtue of private property. When aspiring farmers "choose" to participate in an agricultural apprenticeship for little or no pay and some combination of room, board, and other benefits, they may not feel they have much of a choice at all, given food movement discourse that tells them this is the only way to learn farming. If the alternative food movement wants to reduce the powerlessness of apprentices, apprenticeships on for-profit farms should not be posited as the best, or only, option for those who want to succeed as future farmers.

Agricultural apprenticeship discourse also implies that only certain types of people become farmers, particularly those that farm because they love it. As one agricultural apprentice articulates, "Farm interns [or apprentices] who dare to speak up to their employers about hazardous work conditions, overtime hours, or insufficient pay are often rebutted with the idea that 'this is just farming—you have to love it'" (Childs 2015). At the same time that discourse praises for-profit apprenticeship experiences as the best way to create the next generation of farmers, these esteemed for-profit farms promote a business model that treats its labor force more like volunteers than paid workers, and contributes to agrarian idealism by romanticizing farms. This may have the opposite intended effect, educating young people that farming is not "a valid career path" (Childs 2015). Rather than recruiting as many people as possible to a career in farming, agricultural apprenticeships may turn many people away who are taught that apprenticeships, and farm enterprises, are not economically viable pursuits.

Agricultural apprenticeships advance the interests and values of farmers by encouraging candidate selection based on the personal ideals of individual farmers. This is not to say that farmers intentionally select apprentices based on certain characteristics (although some or many may), but that emphasizing the personal nature of farm work and the "need" this creates for intimate relationships between farmers and apprentices advantages some types of people over others. Farmers are given the power and control to choose apprentices based on whatever qualities they see fit. In this way, apprenticeships further farmers' values through selection of apprentices whose values are most similar to farmers' and who are most likely to agree with farmer decision-making. An application question such as "Tell us what you think of our program, our policies, and how you would fit into our farm," (Sisters Hills Farm n.d.) is beneficial for the host operation because it allows the farmer to eliminate prospective apprentices who might disagree with how something is done, thereby increasing apprentice powerlessness before he or she even arrives. One farm puts one of its top challenges quite clearly as "Picking good ones," articulating that:

> The selection process is our program's most critical component. Candidates have to fit with the mentor, and fit is quite broad. Apprentices question everything: religion, politics, tractor brand, child rearing techniques--you get the picture. In such an intimate setting, fit--which is far more than reluctant toleration--is critical. Intimacy and immersion are the foundations. (Pointeau, Sullivan, and Wentzel-Fisher 2016, 57)

The first listed requirement of interns at this farm is: "Bright eyed, bushy-tailed, self-starter, eager-beaver, situationally aware, go-get-'em, teachable, positive, non-complaining, grateful, rejoicing, get'er done, dependable, faithful, perseverant, take-responsibility, clean-cut boy-girl

appearance characters. We are very, very, very discriminatory" (Polyface, Inc. n.d.).[11] These practices do sound discriminatory indeed, and should raise alarm bells in light of the increased power this grants the farmer and the many ways in which power dynamics influence labor relations and social justice.

Seasonal Labor

Most apprenticeship programs offer short-term, seasonal opportunities, part of a culture in which farm enterprises have the chance to be a long-term part of the community, whereas apprentices are much more likely to be a part of the community in the short-term only, given their temporary employment status. Eight percent of agricultural apprenticeship programs evaluated in this study stated contributing to community and/or individual well-being as a goal. It is unlikely, however, that apprentices are considered a part of the permanent community, making it more difficult for apprentices' concerns to be heard; this is if they are even voiced at all, since apprentices are aware that their position will end after just one season. Short-term employment also makes it more challenging for apprentices to organize. In rural communities where social circles may be small, individuals working for nonprofit hubs may be disinclined to question their neighbors and friends who are host farmers, whom they will interact with long after apprentices have come and gone. Combined with agrarian idealism and the fact that programs facilitated by nonprofit hubs depend on the involvement of host farms, this situation is unlikely to yield improved labor relations for the apprentice if there is a cost involved for the farmer. Farmers, therefore, are in a much more powerful position to shape apprenticeship labor relations. Nineteen percent of programs conduct at least one evaluation of farmers, but 77 percent evaluate apprentices. End-of-season farmer evaluations should be a component of every

11. The farmer espousing these views is a highly "celebrated family farmer" (Guthman 2014, 209) within the sustainable agriculture movement.

apprenticeship program and should be considered thoughtfully to improve future apprenticeships. Evaluation feedback should also be incorporated into farmer trainings; only 4 percent of programs, however, currently include farmer training as a goal. As seasonal, short-term positions, agricultural apprenticeships contribute to apprentice powerlessness in a number of ways.

Exploitation

This section explores the exchange between farmer and apprentice in greater depth. According to Young (1990), exploitation occurs when the labor of one group and its results is systematically transferred to another group for the latter's benefit. On most farms in the capitalist system, owners and workers are distinct, and as a result the farm enterprise revolves around "exploiting," or appropriating, laborers' surplus value in order for the farm owner to make a profit. Because this thesis is exploratory, I aim to raise questions and navigate complexities to provide a richer understanding of the social processes and institutions "that bring about a transfer of energies from one group to another to produce unequal distributions" (Young 1990, 63). That is, I discuss processes of exploitative injustice within agricultural apprenticeship labor relations. I use examples of specific apprenticeship programs not to make judgements, but to raise awareness of conditions that could lend themselves to exploitation. To do this, I first establish the existence of exploitative labor relations in industrialized agriculture, then explore agricultural apprenticeship labor relations by looking at the tension between labor and education; the role of compensation and paternalism; the facilitation of apprenticeships by nonprofit hubs; and finally, the similarities and differences of apprenticeships and internships.

Industrialized Farm Labor Relations

As evidenced by the poor treatment of workers, industrialized, conventional agriculture is characterized by socially unjust labor relations. Workers receive low wages, lack workers' compensation protections despite the absence of health and safety standards, live in unsanitary or unsafe housing, and use transportation that is similarly sub-standard (Bon Appétit 2011). This is particularly troubling given the demanding nature of farm work and the long hours required by employers. These conditions result in high levels of stress, anxiety, and depression, compounded by social isolation (Getz, Brown, and Schreck 2008). Farmers often use labor contractors to recruit workers, shielding themselves from condoned labor abuses committed by contractors. They also use a piece-rate system to pay workers based on units of work completed, such as quantity harvested. This benefits workers who are young and quick, and creates advantages related to uncontrollable factors such as the type of crop harvested or the weather (Romeo 2016; Bon Appétit 2011).

One telling statistic shows that twenty percent of residents in Fresno County, California, which is home to more farmworkers than any other U.S. county, live at or below the federal poverty level (Brown and Getz 2011). This stands in stark contrast to the accumulation of wealth in Fresno County resulting from the highest farm sales in the country. Farmworkers in most states are not permitted to engage in collective bargaining to improve conditions, nor are they afforded other worker protections governing many industries. Most but not all farmworkers are now entitled to federal minimum wage after a 1966 amendment to the Fair Labor Standards Act, but agricultural employees in only four states are entitled to overtime pay (Rodman et al. 2016; Grossman 2016). Farmworkers' exploitation is manifested through a lack of legal protections, unhealthy working conditions, third-party labor contractors that use workers'

marginalized status as immigrant workers for their own benefit, and other socially inequitable measures. Is systemic exploitation also present in the alternative food movement's agricultural apprenticeships? If so, to what extent?

Labor and Education

The academic literature has brought attention to the educational, labor, and other functions of agricultural apprenticeships (Ekers et al. 2015; MacAuley and Niewolny 2016). Researchers who surveyed farmers of small, diversified farms in Virgina found that when asked why they host apprentices, farmers' "top motivation by far (p<0.01) was 'I need labor for my farm,' which 98% rated as 'important,' and 73% rated as 'very important'" (MacAuley and Niewolny 2016, 200). In Ontario, Canada, "almost 60% of [ecologically-oriented] farms felt that they were dependent on non-waged workers," i.e., apprentices, interns, and volunteers, with the authors of this study noting that findings are generalizable across the Global North (Ekers et al. 2015, 8). Speaking of farms hosting apprentices or interns, one farmer said, "One thing I think is common to all of them, if we are being honest…whatever their motivations are, they're solving a labor challenge on their farms" (Ekers and Levkoe 2016, 182). Do agricultural apprenticeship programs state fulfilling labor needs as an explicit purpose?

Very few agricultural apprenticeship programs or the farms or organizations facilitating these programs mention fulfilling labor needs in their mission statements or related statements of goals and vision. Yet an obvious tension concerns the fairness of labor provided by apprentices in exchange for training and education (and other compensation) provided by farmers. As one apprentice puts it, "The imbalances I felt in my own farm internship were not the result of bad management, but the impact of an industry-wide eagerness to rely on unpaid 'interns' or 'apprentices' year after year" (Childs 2015). When asked what their top challenges are, several

apprenticeship programs in this study cited the problem of "Balancing educational/training opportunities with work requirements," the "Balance of field work and course work," or "Balancing teaching and practice time with the demands of production" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 39, 51 and 65). Interestingly, the programs that mentioned this problem span nonprofit, for-profit, and academic farms. The academic apprenticeship program citing this issue alluded to the fact that academic courses can "interfere" with "the educational farming experience" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 71), suggesting that here the labor-education nexus is a challenging one but for the opposite reason than on commercial farms. Yet despite the tension between labor and education, analysis of apprenticeship programs' goals revealed that social justice for farmworkers is not an aspiration. Similarly, some programs explicitly acknowledge goals to aid farmers, but do not have explicit goals to aid farmworkers. This is important because it reveals that regardless of the extent to which farmers are exploiting apprentices, farmers are not giving thoughtful consideration to implementing socially just apprenticeship labor relations.

The tension between fulfilling farm labor needs and providing agricultural education is occasionally addressed in some programs' materials, but typically those meant for farmers rather than apprentices. One student handbook, however, states, "Farm work can be very tedious and repetitive. There is no doubt that you will question the educational value of your experience from time to time" (Rogue Farm Corps n.d.). Later in the handbook, "Living and training together with your host farmer can present challenges as the season progresses. Host farmers are often struggling with the day-to-day realities of managing a successful business in addition to providing training support" (Rogue Farm Corps n.d.). More often when this tension is addressed by apprenticeship programs, it is in materials meant for farmers considering joining an

apprenticeship program as hosts or in "Agrarian Apprenticeship," generated as a farmer resource by and for farmers and organizations facilitating agricultural apprenticeships. Other apprenticeship programs explain that they arose in the first place to meet several needs, one of which was a labor shortage (Pointeau, Sullivan, and Wentzel-Fisher 2016; Farm Education Resource Network 2017). "Our rural area does not always provide sufficient people interested in working on our organic farm. The apprenticeship program brings willing workers from far and wide, something that we deeply appreciate" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 49). Agricultural apprenticeship programs may not explicitly acknowledge labor as a goal, but it is undeniably a key piece of these programs that are centered around work.

Seemingly due to an acknowledged tension between labor and education, a few farms explain that they created apprenticeships to fill a need identified by those wanting to learn sustainable farming practices, "not…to get labor" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 57).[12] This may be true, but even pure intentions cannot erase the economic pressure for profit that is demanded in a capitalist economy. Labor is an expense for all farms and wages paid to workers directly detract from profits, as one apprenticeship program puts their top challenge: "Completely funding most of the apprenticeship through our own production costs us in potential profit and productivity" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 53). The most prevalent "top challenge" self-reported by programs is funding.[13] As I explained in the "Farmers First"

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12. This quoted farm says it did not create its agricultural apprenticeship program for the purpose of getting labor, but also lists a top success of the program as "Vetting for future staff and business partners" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 57).

13. Agricultural apprenticeship programs that report funding as a top challenge are the: Dairy Grazing Apprenticeship, North American Biodynamic Apprenticeship Program, Rogue Farm Corps' FarmsNOW, Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS) Internship Program, Quivira Coalition's New Agrarian Program, Grange School of Adaptive Agriculture Practicum Student Program, Pie Ranch's Apprenticeship Program, The Seed Farm's Apprenticeship Program, Vilicus Farms' Registered Organic Farm Worker Apprenticeship, Berea College Farm's Student Labor Program, Center for Environmental Farming

section, agricultural apprenticeship programs are largely created by farmers and/or by individuals who represent farmers, which in turn means that the conditions of the exchange are determined by farmers and/or by those who represent their interests.[14] This factor alone creates conditions under which exploitation is more likely to occur, since control over the situation is in the hands of farmers, with no worker involvement. Because farmers are motivated to lower labor costs, it is not surprising that apprenticeship programs find it challenging to balance the use of inexpensive labor and the demand for education.

The friction between labor and education may in part arise because farms often fail to show how farm labor is more than just work. According to "Agrarian Apprenticeship," seventy percent of surveyed agricultural apprenticeship programs responded that their typical apprentice comes from a background of little to no exposure to agriculture while growing up (Pointeau, Sullivan, and Wentzel-Fisher 2016, 23). Herein may lie one source of the problem of the labor-education nexus: that farmers may equate exposure to farming and its lifestyle with adequate education. This is in conjunction with the fact that in most cases (academic and some nonprofit programs being exceptions), farmers have no training as educators. Further, only two apprenticeship programs themselves include farmer training as a goal, so it is not apparent that programs are trying to remedy this situation through increased training of host farmers.

Not distinguishing between formal and informal curriculum and equating "skills checklists" with curricula, as "Agrarian Apprenticeship" does, contributes to apprentice

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Systems' Sustainable Agriculture Apprenticeship Program, UC Davis' Student Farm Apprenticeship Program, and Warren Wilson College's Farm Crew (Pointeau, Sullivan, and Wentzel-Fisher 2016). The Maine Organic Farmers and Gardeners Association also says funding is an issue, but it is not clear if this refers to funding for its Apprenticeship Program, Journeyperson Program, or both.

14. An exception is agricultural apprenticeships offered at some academic institutions, which include students in program development, and, as Pointeau, Sullivan, and Wentzel-Fisher (2016) note, are not necessarily called apprenticeships (or internships). Nonprofit farms are also an exception in cases where they were expressly created for educational purposes.

exploitation. This is because informal curricula and skills checklists are highly dependent on farmers' needs, since they are based off of the practices of the farm enterprise on which an apprentice is placed. This provides apprentices with skills unique to the farm and even to the season and are not necessarily transferrable from one farm to the next. Finally, this thesis research found that a number of programs require or prefer apprentice candidates with previous farm experience, which indicates that apprenticeships are not necessarily exposing apprentices to agricultural skills for the first time.[15] "Agrarian Apprenticeship" shares survey results that apprenticeship programs "reported that apprentices had moderate prior farming or ranching experience, either some positive amount less than a year (38%) or between one and five years (43%)" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 57). Prior experience, quite possibly through an internship or apprenticeship, is not necessarily preparing individuals to continue farming as a farm owner or manager upon completion, but to continue a trajectory of multiple agricultural apprenticeships.

Many agricultural apprenticeships do not explain how farm labor is more than just work, but respond to apprentices' educational expectations in various additional ways, contributing to a lack of consistent educational standards across apprenticeship programs. One apprentice summed up the experience of Canadian apprentices:

> Educational plans for interns vary widely, and there are surely farm internships that are rigorous, formalized, and extensive. However, the system described above, in which interns are expected to do the majority of their learning simply by absorbing the farm environment and asking the right questions, is all too common. In practice, this means that many interns get a great education in *some* aspects of the farming business—weeding,

15. These programs include Stone Barns Center for Food and Agriculture's Growing Farmers Initiative, Vilicus Farms' Registered Organic Farm Worker Apprenticeship, and UC Davis Student Farm's vineyard internships (Stone Barns Center 2017; Vilicus Farms n.d.; Regents of the University n.d.)

> planting and, harvesting—without getting a well rounded sense of what goes into running a farm. (Childs 2015)

Farms may supplement learning-by-doing on the farm through monthly classes or workshops offered by a regional alliance of farmers. One of the given reasons for doing this is that it provides "a broader experience" and increases skills learned from those obtained at the host farm alone. One farmer explains, "We are currently participating in the Collaborative Regional Alliance for Farmer Training (CRAFT) program, an alliance of more than a dozen farmers who utilize apprentices as their primary source of farm labor" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 65). It seems unlikely, however, that half-day sessions on different topics can result in in-depth skill development. These sessions do not alter the labor-education nexus on the host farm itself, where, according to the previously quoted farmer, apprentices are the main labor source. What an apprentice learns at a particular farm is individual to that farm's business, and accordingly is only as inclusive in experience and education as the farm business is inclusive of production practices and apprentices' involvement in them. Farmer partnerships to introduce apprentices to various topics on other farms may serve as a great addition to education provided by the host farmer, but should not serve as a substitute for it.

Not all apprenticeship programs operate under the aforementioned model. One nonprofit farm, for instance, structures farm labor around educational lessons while classroom time is utilized for topics such as business planning that are less field-appropriate (Seed Farm n.d.). Here apprentices have the option to work additional, paid hours for more farm experience if they desire. On yet another farm, "Most of our ag professors are work supervisors of our farms where our ag students work. Therefore, lessons taught in class may be applied on the farm the very day they are discussed! We always try to incorporate as many of our farm activities as possible into our classrooms and vice versa" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 77). This level of

coordination between formal and hands-on learning is rarely, if ever, seen on for-profit farms, which tend to treat educational components of agricultural apprenticeships as wholly separate from farm labor, even while advocating that farm work is inherently educational. This contradiction reflects the presence of competing goals of labor and education on commercial farms; educational activities can detract from productivity and farmers' profit. All agricultural apprenticeships should directly address programs' conflicting goals of labor and education in both discourse and practice if they hope to minimize or eliminate apprentice exploitation.

Compensation and Paternalism

The majority of agricultural apprenticeships in this study pay apprentices a stipend. This stipend is often, but not always, below minimum wage; this can be especially true when apprentices' long hours are taken into account. The economic and social circumstances of agricultural apprenticeships are very different from that of immigrant farmworkers, as will be discussed later, but their low monetary payment is reflective of a trend in agriculture (and across the food system) to pay workers very little. As Julie Guthman (2014) explains in *Agrarian Dreams: The Paradox of Organic Farming in California*, living wages for workers is key to empowering more people to be able to afford food produced in an ecologically-conscious way. In effect, "tak[ing] an anticorporate stance while accepting existing social relations as given" (Guthman 2014, 210), has resulted in alternative food movement farmers working within the paradigm of the dominant food system, rather than creating a new paradigm in which environmental, economic, and social well-being for all are equally paramount. Living wages are what enable the customers whom farmers rely on to have the ability to purchase their products. These farmers' products are generally more expensive partially because they account for some of the costs externalized by the industrial food system. Unfortunately, farmworkers and apprentices

often cannot afford the food they are helping to produce (although they may receive food as part of their compensation). Providing greater financial compensation to apprentices would not only help apprentices, whom research indicates would be better prepared to access land upon program completion (Ekers et al. 2015), but would help farmers who need the support of living wage workers as consumers for their farms to be financially viable. Agricultural apprenticeship programs should more carefully consider providing living wages to apprentices.

Some small, diversified farms acknowledge their ability to compensate apprentices fairly. One farmer, when asked "whether they would be willing to pay workers minimum wage if they had the financial resources," replied, "[The] question presupposes that lack of finances is the reason I'm not in the waged economy. But that's not the reason" (Ekers et al. 2015, 10). This comment, only partially included here, is explained to mean that paying interns a wage would detract from the romanticized aspects of the experience. Another farmer disagrees, saying that sometimes fair compensation involves implementing systemic change to one's agricultural system: "I worked as an intern and believe that they more than earn a minimum wage (at least!). That is part of the reason I have changed my farm and labor structure…I could not justify hiring folks to work for free" (Ekers et al. 2015, 13). Margaret Gray (2013) points out that the farmers of New York's Hudson Valley have had to adapt to changes for two centuries; while not all individual farms have survived, the agricultural sector of the area is still thriving today. Examples of more recent "challenges" to the agricultural sector include increased pesticide and animal regulations, values that were once seen as economic burdens but that the sustainable agriculture movement has since embraced. This suggests that raising financial remuneration for farmworkers and apprentices depends at least in part on what individuals, and the alternative food movement on the whole, choose to value.

Many, if not all, of the ways in which farmers compensate apprentices—stipend, housing, and food, for instance—provide some measure of control to the farmer that creates conditions more amenable to exploitation. Stipends, for instance, do not change in amount based on the number of hours apprentices work, allowing farmers to require apprentices to work longer when needed. This may be especially true on for-profit farms. Even when nonprofit hubs provide guidance restricting apprentices' hours, farmers have ultimate discretion in how day-to-day operations are handled. Room and board, non-monetary forms of compensation that apprentices may receive, can be more beneficial to farmers who reduce costs while apprentices lose the ability to choose where they might want to live or what they would prefer to eat. Compensating apprentices in these ways also limits the pool of prospective apprentices to those who are able to meet these terms of the arrangement. Farms may place restrictions on what food is available, only providing excess produce, rather than what can be sold (Silverman n.d.), or second-hand produce with blemishes, for example. Other items such as value-added products may be offered at cost, as is the case at Caretaker Farm (Silverman n.d.). These are a few of the ways in which the compensation given to apprentices is not quite an equal exchange with the farmer; in return for apprentices' labor, farmers receive money for their products that they can spend however they so choose, but apprentices receive non-monetary compensation that is more restrictive.

Non-monetary compensation restricts apprentices' decision-making abilities—increasing their powerlessness, and creates a new form of reliance on their employer as they become dependent on them for multiple needs. For example, farmers who provide apprentices with housing become landlords as well. Living on the farm on which you are apprenticing may also come with additional responsibilities: "In the event of a farm emergency (animals out of fence, etc.) it is expected that apprentices who are on or near the farm will help out until the situation is

corrected" (Silverman n.d.). Fenced in animals have all day to work on their means of escape, and as anyone who has raised livestock knows, animals finding their way out of their fenced enclosure is inevitable. Masking an expected occurrence as an "emergency" is misleading. Though this situation may require an urgent response, and is unplanned in its timing, it is the farmer-employer who determines the conditions of that response. This includes the extent to which apprentices are compensated for their participation in managing "emergencies." Exploitation, by this thesis' definition, occurs when one group's labor for another produces unequal distributions of benefits. In the previous example, apprentices are obligated to honor such requests for help not only because the terms of the arrangement dictate it, but because apprentices' finances, housing, and food are also bound by these terms. Thus apprenticeship labor relations that go sour could result in the loss of not just wages, but multiple sources of apprentices' survival needs. Non-monetary compensation can lead to coercive labor relations.

At the root of farmers' exploitative practices, or conditions that more easily lend themselves to exploitative practices, may be an intentional or unintentional disregard for workers' needs. To repeat a quote from David Harvey (1996, 346-7) mentioned in Chapter Two's "Farm Labor Relations," "many social movements in the twentieth century have foundered on the belief that because their cause is just they cannot possibly themselves behave unjustly." I urge farmers, however disadvantaged they may be within the global, industrialized food system, to resist complacency toward social justice and examine how their actions within the alternative food movement may contribute to the disadvantages of others. Exploiting others, even those who are privileged and so may not feel exploited, will never result in changing the conditions that lead to exploitation in the first place. One farm studied for this thesis expressed that a top challenge of their apprenticeship program is "Lack of apprentice acknowledgement of

the gift that a farmer mentor has provided by including the apprentice on their operation" (Pointeau, Sullivan, and Wentzel-Fisher 2016, 69). It seems that the tacit assumption is that apprentices do not deserve the same acknowledgement, let alone acknowledgement that agricultural apprenticeships deserve socially just exchanges of work, education, and compensation.

Living and working at the same place is one aspect of paternalism that Margaret Gray (2013) says is unique to small-scale farms. According to Gray (2013, 54), "Workplace paternalism by employers can be understood as an intimate but extremely hierarchical relationship in which the employer's control extends into workers' everyday lives." The reason why paternalism is unique within agriculture to small-scale farms is largely due to the intimate relationships that develop in a workplace reliant on human labor and requiring close personal interaction, including that between employees and management (Gray 2013). In the case of farms offering agricultural apprenticeships, this type of close interaction is not only likely, but programs encourage it, touting the "unique one-on-one relationship [developed] with an established farmer mentor" (Farm Education Resource Network 2017). In some cases, programs advertise the amount of hours apprentices spend with farmers, or "contact hours," (Quivira Coalition 2017) as indicative of a truly educational experience, not recognizing that such close contact also places apprentices in a very vulnerable position. When farmers have control over not just the work environment but apprentices' living arrangements as well, this can lead apprentices to attribute benefits received as due to the good will of the farmer. This type of thinking is evident in "Agrarian Apprenticeship," in its depiction of one or more weekly days off as "compensation" provided to apprentices (Pointeau, Sullivan, and Wentzel-Fisher 2016). This document does not distinguish between farmers that offer one day off or more, a distinction that

could be important to apprentices. It is unclear why having one or more days off should be considered "compensation," making the decision to call it such a discursive one that prioritizes farmers' need for labor over apprentices' need for rest. This type of thinking can contribute to paternalistic management practices because even when labor conditions are exploitative in structure, apprentices may attribute benefits, such as a day or two off, to the kindness of the farmer. This is no doubt a complex matter, since "Generosity on the part of the employers might also appear as the height of paternalism" (Gray 2013, 96). What is clear, however, is that paternalistic practices that lead to a happier labor force are good for farmers' bottom line.

Nonprofit Hubs and Agrarian Ideology

Nonprofit hubs mediate agricultural apprenticeship programs in varied ways, and further research is needed to better understand how third party involvement alters the apprentice-farmer exchange. Responses from nine nonprofit hubs of what they provide to apprenticeship programs are presented in "Agrarian Apprenticeship." These results show that nonprofit hubs provide a wide variety of services for agricultural apprenticeship programs, including but not limited to streamlined application processes (78%), financial assistance (56%), and legal or labor law advice (44%) (Pointeau, Sullivan, and Wentzel-Fisher 2016, 25). Nonprofit hubs also offer a variety of educational services for apprentices such as farm tours (78%), classroom education (67%), and providing a written curriculum (56%) (Pointeau, Sullivan, and Wentzel-Fisher 2016, 25). Notably, despite the second most common goal of agricultural apprenticeship programs to develop new farmers, the least common service that programs provide is job placement for graduated apprentices (33%) (Pointeau, Sullivan, and Wentzel-Fisher 2016, 25). Each of these services warrants further study as to how their provision by nonprofit hubs, rather than farmers, impacts labor justice.

Nonprofit hubs represent farmers more than they do apprentices, as was discussed in the section "Farmers First." Some nonprofit hubs, such as the Rogue Farm Corps, were formed "to meet the legal criteria for unpaid internships and apprenticeships" and provide legal protection for farmers concerned "about the current quasi-legal status of informal internships" (Rogue Farm Corps n.d.). Certainly every employer should follow the law, and adhering to legal requirements is one way to ensure some level of protection for farmworkers. But it is important to recognize that hubs such as this one are not neutral parties, as evidenced by their being formed by and for farmers. Focusing on meeting legal requirements so that farmers can continue to utilize apprentices is very different than focusing on developing socially just programs to provide aspiring farmers with the best education possible.[16] Several programs mention improvements they would like to make in their programming, such as requiring more prior experience from host farmers, but indicate they are unable to make these changes. This could lead one to wonder why that is, and to what extent programs are willing to sacrifice the quality of agricultural apprenticeships to meet program pressures and constraints. These organizations have greater incentive to maintain good relationships with farmers, whom they work with year after year, than to improve the short-term labor relations experienced by temporary apprentices.[11]

Closely examining the services provided by nonprofit hubs indicates that these are skewed toward farmers', as opposed to apprentices', interests. Some programs provide financial assistance to subsidize farmers' share of apprentices' stipends and also fund apprentices' attendance at educational events. These funds could instead be provided to apprentices directly. Rather than exempting farmers from paying monetary compensation owed workers by paying it

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16. Moreover, it is not clear that programs do meet legal requirements.

17. At least one agricultural apprenticeship program, the Rogue Farm Corps, is paid a fee by host farms, making them at least partially reliant on farmer funding (Rogue Farm Corps n.d.).

for them, these nonprofit hubs could subsidize apprentices who often receive below minimum wage stipends; (this might also help programs combat the recurring "top challenge" of recruitment documented in "Agrarian Apprenticeship").[12] Finally, nonprofit hubs and other groups such as the Collaborative Regional Alliance for Farmer Training (CRAFT) provide increased educational opportunities to apprentices. This is another example of how a seemingly beneficial arrangement for all involved needs to be more thoroughly examined for its effects on social justice. Outsourcing education to outside organizations or other farmers may be a great supplemental tool—and perhaps even necessary for topics that warrant classroom learning—but it should not be a replacement for an adequate education acquired through the course of working at the farm, if that is what the farm is promising. Further, the survey of nine nonprofit hubs revealed that zero percent of these organizations require host farmers to provide any additional educational opportunities of their own (Pointeau, Sullivan, and Wentzel-Fisher 2016). Nonprofit hubs, like the farmers they represent, should more deeply interrogate their goals and practices if they hope to help develop more socially just agricultural apprenticeships.

Nonprofit hubs may play another unacknowledged role of perpetuating agrarian ideology that valorizes farmers at the expense of sufficiently protecting apprentices. Organizations do this by depicting the exchange of apprentice labor for farmer education in a romanticized fashion. Suggesting that this exchange is much more than, or different from, the wage exchange (Maine Organic Farmers and Gardeners 2017; Sligh et al. 2012), as third parties both explicitly and implicitly do, shifts attention from the conditions of the wage exchange to romanticized notions

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18. Programs citing recruitment as a top challenge are the Dairy Grazing Apprenticeship, Foundation for Agricultural and Rural Resource Management and Sustainability Internship Program, Rogue Farm Corps' FarmsNOW, Quivira Coalition's New Agrarian Program, Grange School of Adaptive Agriculture Practicum, The Seed Farm's Apprenticeship Program Student Program, and Vilicus Farms' Registered Organic Farm Worker Apprenticeship (Pointeau, Sullivan, and Wentzel-Fisher 2016).

of the experience—despite the fact that this experience still operates within the capitalist economy.

The realities of small-scale farming and the idealization of the family farmer create contradictions in nonprofit hub discourse. For example, organizations tend to describe farmers hosting apprentices as mentors in many aspects of life, not just farming. One group advises farmers to "be ready and willing to be an apprentice's full-time employer, teacher, and life coach" (Quivira Coalition 2017), while another says that "By participating in the Apprenticeship Program, you are therefore agreeing to be a mentor as well as a boss" (Maine Organic Farmers and Gardeners 2017). The latter organization states that farmers are likely to impart "knowledge, wisdom, values, philosophies, and experiences that are powerful formative forces in an apprentice's education and life path," but then goes on to clarify that farming is a difficult job, being a good mentor in addition is even more difficult, and that it is not easy for farmers to take this commitment to apprentices seriously (Maine Organic Farmers and Gardeners 2017). This organization then acknowledges the role of apprenticeships in providing labor for farmers, stating "An apprenticeship is not necessarily the ideal means of finding extra hands," implying that in some cases, it could be. Finally, this nonprofit hub says that it expects farmers to understand that apprentices may not become efficient workers right away and that farmers must be committed to sharing knowledge and experience, demanding a lot from farmers given their previously described "difficult" circumstances. Despite recognizing multiple potential pitfalls with the apprenticeship approach, this organization acts almost solely as a matching service between prospective apprentices and farmers. The little support they provide includes a list of questions that prospective apprentices should ask farmers and themselves to alleviate their personal burden of navigating what it is exactly they are getting into (see Maine Organic Farmers

and Gardeners Association's "Choosing a Farm and Mentor: Tips for Prospective Apprentices" n.d.). Nonprofit hubs valorize small-scale farmers, which impacts their ability to represent farmers and apprentices equitably.

Apprenticeships Versus Internships

How are agricultural apprenticeships similar and dissimilar to agricultural internships? In examining "Agrarian Apprenticeship" and the publicly available content of its featured apprenticeship programs, I found extremely high variability in how these two terms are used, yet some themes did emerge. For some programs, such as the Rogue Farm Corps' FarmsNOW, the Dairy Grazing Apprenticeship, or Vilicus Farms' Registered Organic Farm Worker Apprenticeship, the term "internship" denotes what is believed to be a less robust experience than an apprenticeship (Rogue Farm Corps n.d.; Dairy Grazing Apprenticeship 2016a; Vilicus Farms 2017). In these instances, internships are focused on immersion in farming and typically shorter in length and a stepping stone to apprenticeship, provided the intern enjoys the experience. This distinction does not always apply, however, as programs that most would agree are more robust in terms of structure, education, and quality control, are sometimes called internships, while a program whose main function is to act as a matching service for prospective apprentices and host farmers may be deemed an apprenticeship. Academic institutions and their corresponding farms are less likely to use the terms "apprentice" or "intern" at all, instead opting for words such as student or participant to describe the experiential on-farm education they offer. Some academic institutions do use these terms, though. Regardless of which term apprenticeship programs have chosen to use, "Agrarian Apprenticeship" calls programs of all kinds "apprenticeships," equating terms despite differences in their use between and within programs.

Agricultural apprenticeships and internships are often used interchangeably, even though it is not clear that they are referring to the same arrangement.

Often "apprenticeship" or "internship" is used in reference to an informal labor arrangement in which the apprentice/intern "learns by doing," and in exchange for labor is compensated with the acquisition of knowledge and skills, a small or no stipend, and possibly housing or food, conditions that may or may not meet the legal definition of an internship. Some apprentices are considered students, rather than employees, as at the Stone Barns Center for Food and Agriculture (Stone Barns Center 2017). At other times, apprentices or interns may be considered legal employees or it is encouraged for farmers to do so for their protection against lawsuits (Alcorta, Beckett, and Knox 2013; California Farmlink 2011). One program allows participants to choose which combination of apprentice, intern, or volunteer they would like to be, as illustrated in this statement that is sure to flummox: "Both apprentices and those participating less intensively can do so as volunteers (no academic credit) or as interns (for academic credit)" (UC Davis 2016). These are just a few of the ways in which the terms "apprentice" and "intern" are conflated by those developing and managing such programs, making it nearly impossible to draw clear distinctions across the alternative food movement.[13]

Confusion about what agricultural apprenticeships are versus what agricultural internships are has led to incongruity in apprenticeships' goals and practices, and also in how apprenticeship outcomes are evaluated. As previously mentioned, analyzing the goals of agricultural apprenticeships showed that some programs view their apprenticeships as immersive, introductory experiences for participants to decide if farming is really for them, while

19. I used the term apprenticeship as a catch-all term for both apprenticeships and internships for ease of readability throughout this thesis and because, regardless, there is no clear agreement in how these terms are used across programs.

other programs are meant to attract applicants with prior experience farming who are committed to a career in agriculture. Increased clarity is needed to determine which programs intend to accomplish what, and what the goals of agricultural apprenticeships should be; immersive experiences, for instance, may not adequately meet a robust definition of "apprenticeships."

In order to measure the extent to which programs are meeting their goals, it is vital that the alternative food movement clearly delineate the functions and form of agricultural apprenticeships and agricultural internships. "Agrarian Apprenticeship" asked the survey respondents of apprenticeship programs about apprenticeship outcomes (Pointeau, Sullivan, and Wentzel-Fisher 2016), but not distinguishing between apprenticeships, internships, and other variations of training programs make this data at least partially unreliable. This is because some programs offer both apprenticeships and internships and it is not clear which one they reported on or if they combined apprenticeship and internship data, rather than answering specifically about their apprenticeships. In one case the program profiled in "Agrarian Apprenticeship" (and likely responding to the survey question on apprenticeship outcomes) is actually not an apprenticeship program at all. Instead, it is meant "to fill the continuing education gap between apprentice and independent farmer, and to provide the resources and opportunities for prospective new farmers who have completed an apprenticeship or have farmed for at least 2 years to further develop the skills they need to farm independently and successfully" (Maine Organic Farmers and Gardeners 2017). Despite also offering an actual apprenticeship program that mostly connects potential apprentices with host farms, this is not the program described. Instead, outcomes are reported based on a program that aids those ready to start or strengthen

their own farm business.[14] If and how "apprenticeship" and "internship" are defined has real implications for what these programs set out to do and what they achieve, including the extent to which they engage in non-exploitative labor relations to achieve social justice.

Marginalization and Cultural Imperialism

Oppressive and non-oppressive structures are not mutually exclusive, overlapping and intersecting in myriad ways even upon a single individual. In this way, agricultural apprentices can be privileged and experience the benefits of privilege, while simultaneously facing oppression. This section looks at how the privilege embedded in agricultural apprenticeships reinforces marginalization and cultural imperialism toward farmworkers, particularly farmworkers of color. Marginalization occurs when a group is deemed unfit for the labor system, resulting in the inability to fully participate in social life (Young 1990). Cultural imperialism, which in the case of agricultural apprenticeships is strongly connected to marginalization, occurs when a dominant group's experience, culture, and meanings are established as the norm, "othering" the cultures of less dominant groups while subjecting these groups to stereotypes and invisibility (Young 1990). By functioning through conditions that lead to marginalization and cultural imperialism, agricultural apprenticeships contribute to the oppression of farmworkers across the food system.

Privilege, Whiteness, and Marginalization

Many parallels can be drawn between the labor relations of agricultural apprenticeships and that of other types of farm work, but one stark difference lies in the whiteness of agricultural apprenticeships. While agricultural labor is overwhelmingly performed in the United States by

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20. Another possible flaw in the aggregate data presented is that at least two of the profiled agricultural apprenticeship programs are host farms within profiled apprenticeship "nonprofit hubs," and it is not clear if data in these instances was counted twice.

people of color, agricultural apprenticeships are overwhelmingly enacted by individuals who are white, well-educated, and middle or upper class (Pilgeram 2011; Weiler, Otero, and Wittman 2016; Childs 2015; Ekers et al. 2015; MacAuley and Niewolny 2016). This is reflective of the whiteness of the alternative food movement on the whole (Levkoe and Ekers 2016). As one agricultural apprenticeship program explains, albeit unintentionally, privilege is built into this labor relation, directly affecting who has access to these opportunities:

> Most of our participating mentor farms provide housing and food for their apprentices, and many also offer a stipend or hourly wage. These funds are usually sufficient to cover basic expenses such as food that the farm doesn't provide, vehicle insurance, and a high-deductible health plan. However, if you have significant additional expenses you may need to rely on savings or other outside support for those costs. (Biodynamic Association 2016)

Low wage or non-waged labor is not the case within every apprenticeship program, but is the norm. Additional non-monetary compensation in the form of housing, food, or other goods or services may improve accessibility somewhat, but non-monetary compensation is also limiting in that it best serves some at the expense of others, such as single individuals over those with families. Thus agricultural apprenticeships are most conducive to those with privilege in various forms, who because of their life circumstances can afford to take the increased risk and conform to the unique arrangements of these low wage or unpaid positions.

Agricultural apprenticeships perpetuate privilege in ways that further advantage farmers over farmworkers and reproduce an already highly inequitable distribution of farmland according to race. Just as the United States' agricultural labor policy revolves around recruiting seasonal workers who travel to geographic areas depending on the season (Martin 2002), the sustainable agriculture movement's apprenticeships also depend on a seasonal labor force that sometimes travels to new farms each season in pursuit of an aspiring farmer education through

apprenticeship. While farmers financially plan for the off-season when income is lower, there is no evidence to suggest that apprentices' year-round financial security is a consideration when farmers determine their compensation. Without the ability to save, apprentices' off-season survival needs must be met through other means, such as another seasonal position or the help of family, friends, or public assistance. This system is dependent on a supply of willing apprentices, which concurrently depends on financial privilege. Giving preference to apprentices with previous agricultural experience, as the "Labor and Education" section showed that some farms do, exacerbates the systemic privilege of apprenticeships, since this experience is likely to come from the volunteer, intern, or apprentice positions utilized by small, diversified farms, or through the privilege of growing up on a farm. Partially due to a history of racial discrimination, including the U.S. Department of Agriculture's denial of "loans, disaster relief, and other benefits to black farmers," the number of African American farmers declined by ninety-eight percent between 1920 and 2000 (Brent and Kerssen 2014, 3). "As of 2007, only 0.3 percent of US farmland was principally operated by black farmers" (Brent and Kerssen 2014, 3). Conditions of agricultural apprenticeships that exclude and marginalize less-privileged populations, whether implicitly or explicitly, further the inequities of the food system and our society on the whole.

The findings of this thesis corroborate research showing that many small farms rely on the independent wealth or off-farm income of the farmer to remain viable. The farm manager at one program for at-risk youth described the difficulties in establishing one's own farm, even after one acquires farm experience:

> low-income kids, they're not going to be starting farms, most of them. You've got to have a lot of money to start a farm. There's a few [farmers] that have worked their butts off to get where they are, but a lot of them have had the land covered or have somebody

> in the family; there's definitely some backing that's allowed them to become viable operations. (Pilgeram 2011, 382-3)

Most of the agricultural apprenticeship programs this thesis evaluated do not aim to remove beginning farmer barriers to entry such as land and capital, nor do they do so in practice. Data concerning how many apprentices become farm owners or managers is lacking, in part because programs track apprenticeship outcomes in different ways, as was discussed in the previous section, "Apprenticeships Versus Internships." Some programs, such as the North American Biodynamic Apprenticeship Program, measure success in becoming a farmer according to program graduates, excluding those who leave the program before completing it, while others may look at all program participants when measuring outcomes. (Still others are not apprenticeship programs at all, such as the Maine Organic Farmers and Gardeners Journeyperson Program, or do not measure success according to the amount of new farmers, but by the amount of new advocates for the alternative food system.[15]) For these reasons, data that does claim to present apprenticeship outcomes is not entirely credible. Individual farms, however, often report success in creating new farmers and farm managers. Because apprenticeship programs are not providing the land, capital, or other resources to start a farm enterprise, apprentices' success may be due in large part to personal resources that again are due to privilege. Even when programs "succeed" in creating new farmers, success may be socially unjust if it is only a possibility for select groups of people who have the personal privilege to engage in an apprenticeship in the first place and then to start one's own farm. Agricultural apprenticeship programs, should they wish to achieve social justice and eliminate oppression, must not only evaluate outcomes in terms of meeting their goals, but in who these outcomes serve at others' expense.

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21. Examples of programs measuring success in this way include Full Belly Farm's Internship Program, Hawthorne Valley Farm's Apprenticeship Program, and the Center for Environmental Farming Systems' Sustainable Agriculture Apprenticeship Program.

Self-Exploitation, Agrarian Ideology, and Cultural Imperialism

Small farms, such as the ones offering agricultural apprenticeships, may subsidize their farm operation through off-farm income, independent wealth, or their own or others' cheap labor, conditions which are likely being replicated in agricultural apprenticeships. Small to medium-scale, ecologically-oriented farmers may work long and hard to remain viable, but they are using "their own idealism as justification to exploit their own difficult labor on the farm" (Pilgeram 2011, 1), idealism which may be shared by apprentices. For this reason, one farmer's statement that "We will never ask our interns to do a task that we wouldn't do ourselves," is not inherently assuring (Pointeau, Sullivan, and Wentzel-Fisher 2016, 45). A study of agricultural apprenticeships in Virginia found that "apprentices and host farmers alike saw themselves as part of a social movement within AAM [alternative agrifood movement] discourses, and were motivated by critical engagement with the agrifood system" (MacAuley and Niewolny 2016, 205). Additional studies corroborate this finding, concluding that apprentices "believe deeply in the importance of growing food, giving away their labor to make it available" (Pilgeram 2011, 390). While some apprentices have expressed concerns about their perceived exploitation, others may recognize these same conditions but accept them as a normal part of being a small-scale farmer. That is what apprentices are being taught.

The education of the next generation of farmers as enacted through agricultural apprenticeships uses agrarian ideology to justify self-exploitation, while obscuring the privilege that self-exploitation requires. As Julie Guthman (2014, 209-210) writes of California agriculture on the whole, "By embracing an agrarian populist ideology, it has helped growers efface their discomfort as capitalist producers, allowing them to take an anticorporate stance while accepting existing social relations as given." In other words, the romanticized depiction of the family farm

in juxtaposition to industrialized farms, overlooks the fact that alternative food movement farms are operating in a capitalist economy that demands minimization of costs and maximization of profits. The next generation of farmers is being taught that success is dependent upon self-sacrifice and the labor of low-wage or non-waged workers. Unfortunately, this lesson does not also include the fact that such a system hinges on social inequity that grants privileges to some and disadvantages to others. The new generation of farmers may, in fact, be convinced of the exact opposite, as one new farmer expressed in a film called *The Greenhorns* about alternative farmers: "I'm not relying on some strange economic structures that have been set up that benefit some and hurt others to make my livelihood" (Gray 2013, 74). Echoing the sentiments of farmers in Ekers et al. (2015) who argue that paying apprentices a wage would transform an "experience" to a mere "job," beginning farmers may feel that "the lack of big profits allows them an imagined distance from capitalism" (Gray 2013, 74). Though it may appear counterintuitive, some apprentices or aspiring farmers may not desire to make much money because it adheres to a new agrarian idealism that depicts sustainable farming as morally superior—and because they have the privilege of being able to do so.

Some agricultural apprenticeship programs make statements saying that they welcome diversity and equal access, but miss the mark in addressing the inequalities embedded in the structure of their programs. Addressing the inequities of agricultural apprenticeships will involve challenging their whiteness by including people of color in efforts to train and educate new farmers in the alternative food movement. Although small-scale and medium-scale farmers may be oppressed within the greater food system, this should not and cannot justify the oppression of other farmworkers. Agricultural apprenticeships contribute to marginalization and cultural imperialism by failing to include migrant and immigrant workers in apprenticeship

programs. Multiple scholars point out that all types of farms, including farms in the alternative food movement, rely on immigrant labor (Guthman 2014; Gray 2013; Crane 2012), yet the apprenticeship programs examined in this thesis showed no sign of recruiting immigrant farmworkers to participate in apprenticeships. This might be explained by the incongruity between the privileged nature of farm apprenticeships and marginalized nature of farm labor. As Laura-Anne Minkoff-Zern (2013, 1) found through ethnographic research of Mexican farmworkers in California and Virginia, these farmworkers are trying to establish themselves as small-scale, ecologically-conscious producers, even while facing "race and ethnicity based discrimination." People of color lack access to agricultural apprenticeship programs even when they are current farmworkers with a commitment to sustainable agriculture.

Agricultural apprenticeship programs emphasize creating new farmers who will steward the land, but largely ignore alternative and industrialized agricultural labor relations that depend on farmworkers—overwhelmingly people of color—to accomplish many of farming's day-to-day tasks. By positing apprenticeships as the stepping stone for a transition from an apprentice-laborer to a farmer-manager, this new labor relation contributes to the perception that farm labor is less important than farm management or ownership. By not offering apprenticeships that seek to create skilled farmworkers, the alternative food movement fails to contest the marginalized position of farm labor, and continue to reserve it for minority populations. Similar to farms justifying low-wage immigrant labor because workers' earning potential is much greater compared to that in their home countries (Gray 2013), low-wage apprentice labor is justified with the argument that it is only a temporary means to farming as an end goal; in both cases, outside sources of financial and social support allow farmers to pay lower wages. Weiler, Otero, and Wittman (2016, 15) explain this primitive accumulation process based on an analysis of the

alternative food movement in British Columbia, Canada, saying that, "defending low-wage or no-wage labor…has ideological consequences for farmworkers because it fails to contest the way farmworkers' sacrifices (and those of migrant farmworkers' families and communities from which they are separated) act as a subsidy to the food system." Similarly, in the case of agricultural apprenticeships, "efforts to legitimize un(der)paid internships serve to offload the public responsibility for inclusive social protections onto individual, exclusive social privilege" (Weiler, Otero, and Wittman 2016, 15). The alternative food movement risks creating yet another "agricultural exceptionalism": that agricultural apprentices need not have labor protections, because they are privileged enough to provide for their needs without them. Yet even if all apprentices were satisfied with this arrangement—and not all of them are—this may be missing the point that a limited demographic has access to these opportunities in the first place, and that this demographic identifies with idealized yet self-exploited farmers. Agricultural apprenticeships that value the role of the farmworker and not just the farmer would bring attention to the farmworkers in this country on both alternative and industrialized farms that are so often overlooked. In their pursuit of a more ethical food system, agricultural apprentices may have no idea how their participation in apprenticeships contributes to marginalization and cultural imperialism toward farmworkers in more ways than one. For a summary of oppression within agricultural apprenticeships and industrialized agricultural labor, please see table 8, which shows a great deal of similarities between the two.

Violence

The research conducted for this thesis did not find evidence of Young's (1990) definition of violence: physical attacks or "less severe incidents of harassment, intimidation, or ridicule" directed at people solely for being members of a particular group (Young 1990, 68). However,

further research could study the extent to which agricultural apprenticeships contribute to violence as defined by Mary Jackman (2001, 443): "Actions that inflict, threaten, or cause injury [where] injuries may be corporal, psychological, material, or social [and] actions may be corporal, written, or verbal."

Table 8. Comparison of forms of oppression in modern agricultural apprenticeships and industrialized farm labor

Form of Oppression	Modern Agricultural Apprenticeships	Industrialized Agricultural Labor
Powerlessness	Farmers' needs are prioritized and their role is elevated as more important than apprentices' or farmworkers' needs and role.	Farmers' needs are prioritized and their role is elevated as more important than farmworkers' needs and role.
	Social justice is not a focus of most programs' goals or practices.	Social justice is not a focus of most farms' goals or practices.
	Apprentices or farmworkers have no role in program development, except at some academic institutions.	Workers have no role in developing the conditions surrounding their employment.
	Nonprofit hubs facilitate some programs, but leave most decision-making up to host farmers and prioritize farmers' needs over apprentices'.	Farmer-employers determine most aspects of labor relations. Labor contractors also play a role.
	Discourse says that limited "real world" opportunities exist to gain environmentally sustainable farming skills, positing not only apprenticeships, but apprenticeships at for-profit farms, as the only way to learn.	Limited opportunities for immigrant and migrant workers to enter the formal economy; some recruited specifically for farm work
	Discourse says that a love of farming is more important than the need to make money.	Discourse says that the earning potential of farmworkers in the U.S. is greater than the earning potential in the countries from which most workers are migrating.
	Seasonal, temporary positions limit apprentices' ability to voice concerns, organize, or be heard.	Seasonal, temporary positions and marginalized status in society limit farmworkers' ability to voice concerns, organize, or be heard.
Exploitation	Despite tension between meeting labor and training needs, social justice is not a focus of most programs' goals or practices.	Social justice is not a focus of most farms' goals or practices.
	Apprenticeship programs are designed by and for farmers, for whom profit margins are slim and labor is an expense.	Farmer-employers, for whom labor is an expense, determine most, if not all, aspects of labor relations.
	Unclear if agricultural apprenticeships consistently result in skilled farmers	Farmworkers unlikely to become skilled workers due to performing repetitive tasks
	Farmers are not required to have training as educators, except at academic institutions.	Farmers are not required to have training as educators, but workers are not being promised education.
	Lack of educational standards across programs; what is taught and how is dependent on individual farms	N/A

Form of Oppression	Modern Agricultural Apprenticeships	Industrialized Farm Labor
Exploitation	Unclear how the top form of education, hands-on training, is different from farm labor.	N/A
	Apprentices typically receive no or low-wage monetary compensation.	Farmworkers typically receive low-wage monetary compensation.
	Non-monetary compensation often provided, increasing apprentices' reliance on host farmers to meet their needs.	Non-monetary compensation typically provided, increasing farmworkers' reliance on host farmers to meet their needs.
	Close, personal relationships between host farmers and apprentices leads to paternalistic management practices.	Close, personal relationships do not develop between farmers and farmworkers.
	Nonprofit hubs are more likely to represent farmers' interests than apprentices' interests and perpetuate agrarian ideology.	N/A
	Extremely high variability in how the terms "apprenticeship" and "internship" are used.	N/A
Marginalization	Apprenticeships do not value or promote farm labor as a career, contributing to farmworker marginalization across the food system	Farm work is relegated to marginalized populations.
	Apprenticeships are only available to privileged individuals/groups due to low or no wages and restrictive non-monetary compensation.	Farm labor pursued by non-privileged individuals/groups due to low wages and restrictive non-monetary compensation.
Cultural Imperialism	The experience of farmworkers and their role in land stewardship is ignored by not including farmworkers in programs and saying that apprenticeships are the only or best way to learn how to farm.	The experience of farmworkers and their role in land stewardship is ignored.
	Perpetuate inequitable access to farmland and farming based on race/ethnicity	Perpetuate inequitable access to farmland and farming based on race/ethnicity
	Apprentices overwhelmingly white, well-educated, and privileged. Farmworkers do not have access to apprenticeships.	Farmworkers overwhelmingly people of color
	Farmers and apprentices identify with the alternative food movement and are able to self-exploit due to privilege.	Farmworkers are marginalized within American society and are exploited due to lack of options.
Violence	Not applicable according to Young's (1990) definition	Did not evaluate regarding violence

History of Apprenticeships and Internships

The apprenticeships of medieval Europe went something like this (at least in theory): master craftsmen trained youth in a particular trade, which trainees did not have the resources to do on their own, but by the end of the training period had skilled workers in their employ who were paid wages below their real market value, allowing employers to recoup any investment costs (Elbaum and Singh 1995). Guilds played a large role in structuring apprenticeships by enforcing indenture agreements that stipulated the terms of apprenticeship. This included ensuring the quality of education, although Epstein (2003, 148) notes that expectations developed for employees and employers were "strongly unbalanced in the master's favor." Craftsmen only engaged in apprenticeships when they earned a profit, evidenced by their decline in places where they were not profitable (Epstein 2003). Nevertheless, employers typically paid wages that were high enough to provide for the apprentice's family, so as not to limit the labor supply due to "the subsistence constraints of many working class families," and were motivated to pay higher wages toward the end of an apprenticeship in order to encourage apprentices to stay for the full length of their agreed-upon term (Elbaum and Singh 1995, 616). Compensation also included housing, food, and clothing, amongst other things (Perlin 2012). Term lengths varied depending on the trade, family relation of the apprentice, and historical time and place, but was at least several years; for example, English law from 1563-1814 mandated apprenticeships be no less than seven years long (Perlin 2012). Apprenticeship knowledge was thought to increase over time and apprentices could expect to receive much higher wages upon completion of their training than through other working class jobs (Perlin 2012).

Many modern apprenticeships in the United States are defined and regulated by the Department of Labor's Office of Apprenticeship, where an "apprenticeship is a combination of

on-the-job training and related instruction in which workers learn the practical and theoretical aspects of a highly skilled occupation" (United States "Youth Programs" n.d.). The U.S. Department of Labor or approved state apprenticeship agencies administer apprenticeship programs to ensure they meet national standards and produce skilled workers who have received high quality training (United States "Frequently Asked" n.d.). Apprentices earn a wage from the beginning of the program, averaging $15 per hour to start, that rises incrementally over the program's duration. Most apprenticeships are four years long, although they range from one to six years, and normally include "2,000 hours of on-the-job training and a recommended minimum of 144 hours of related classroom instruction" per year (United States "Frequently Asked" n.d.). Managing federal or state agencies issue Certificates of Completion of Apprenticeship at the conclusion of apprenticeships and apprentices earn a higher "journeyworker" status. According to the Department of labor, "apprentices who complete their program earn approximately $300,000 more over their career than non-apprenticeship participants" (United States "Frequently Asked" n.d.). Apprenticeship programs are not required to register with the federal apprenticeship program, however, or meet its standards. Unregistered apprenticeships number "in the hundreds of thousands" (Perlin 2012, 56). "Less likely to be comprehensive, life-changing experiences, they at least tend to be decently paid, influenced by the strong gravitational pull of OA's [Office of Apprenticeship's] national standards" (Perlin 2012, 56). In other words, informal, unregistered apprenticeships may not be as transformative in people's careers because they are not required to meet any standards or certification requirements, but in order to remain competitive, these opportunities tend to offer comparable wages to formal, registered apprenticeships.

Internships, the number of which has dramatically increased over the last fifty years or so, are hardly documented by any records detailing their function or form (Perlin 2012). I bring up internships because the terms "apprenticeship" and "internship" are used interchangeably within the sustainable agriculture community.[16] The Fair Labor Standards Act provides the legal test for internships at for-profit businesses in order to determine whether or not an intern must be paid minimum wage (and overtime) (U.S. Department 2010). The only circumstances in which an intern is not due minimum wage are when all six of the following criteria are met:

1. The internship, even though it includes actual operation of the facilities of the employer, is similar to training which would be given in an educational environment;
2. The internship experience is for the benefit of the intern;
3. The intern does not displace regular employees, but works under close supervision of existing staff;
4. The employer that provides the training derives no immediate advantage from the activities of the intern; and on occasion its operations may actually be impeded;
5. The intern is not necessarily entitled to a job at the conclusion of the internship; and
6. The employer and the intern understand that the intern is not entitled to wages for the time spent in the internship. (U.S. Department 2010)

Internships have become increasingly controversial, not to mention confusing; nonprofit organizations, for instance, are legally permitted to utilize volunteers who receive no compensation, but interns are still required to meet the above six-point test to ensure that an intern not being paid minimum wage is engaged in an internship for the intern's sole benefit (The Economist 2011; Perlin 2012; National Council of Nonprofits 2017). State labor laws further complicate matters, but as *The Economist* (2011) has pointed out, laws are generally not enforced.

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22. Additionally, many academic farm training programs do not use either "apprenticeship" or "internship," essentially claiming to be neither, but were included in "Agrarian Apprenticeship" (Pointeau, Sullivan, and Wentzel-Fisher 2016) and thus in this thesis.

Despite their recent resurgence on small-scale, ecologically-oriented farms, agricultural apprenticeships are not an entirely new phenomenon. Margaret Gray (2014) documents the use of apprentices in Hudson Valley agriculture around the time of the mid-nineteenth century, directly linking their use with farmers' desire or need to lower labor costs as a result of farms' transition from familial labor to hired hands. Gray (2014) situates apprenticeships within a history of farmers compensating workers cheaply when social, political, and economic conditions allowed, and paying higher wages when needed to secure the labor force. This indicates that Hudson Valley farmers found ways to pay higher wages when the supply of labor was at stake. According to Gray (2014), the success of a fair number of apprentices in becoming farmers contributed to the Hudson Valley's culture of reliance on cheap and readily available labor as "farmworkers rationalized their low-wage 'training' in the name of their futures" (30). Certainly there are similarities with today's agricultural apprenticeships that occur in the context of low profit margins for small-scale, ecologically-conscious farmers and a willing supply of apprentices to serve as inexpensive laborers. This reinforces the norm of low-wage labor across the agricultural industry.

On the other hand, there are quite a few differences between the apprenticeships (non-agricultural) of the pre-modern past and the agricultural apprenticeships of today. One difference is the length of apprenticeships; whereas pre-modern apprenticeships were usually several years long, today's agricultural apprenticeships rarely exceed one year. Out of the twenty-six apprenticeship programs in this study, only the Dairy Grazing Apprenticeship (Dairy Grazing Apprenticeship 2016a), Vilicus Farms' Registered Organic Farmworker Apprenticeship (Vilicus Farms 2017), and programs through several academic institutions require apprentices to participate for longer than one year. Both the Dairy Grazing Apprenticeship and Vilicus Farms'

apprenticeship are formal apprenticeship opportunities registered with state or federal government to meet its guidelines. One other program, the North American Biodynamic Apprenticeship Program, requires apprentices to complete about twenty-four months of training, but this can take place on multiple farms within a three-year period, with breaks (Biodynamic Association "Program Requirements" n.d.). Most modern agricultural apprenticeships are much shorter in length than the original apprenticeships.

Other than the obvious impact that a shorter apprenticeship has on the amount of training that can be given and received, apprenticeships that are this short in length subvert the main way in which traditional apprenticeships operated. As explained earlier, apprenticeships worked because they were a way for apprentices to receive training they couldn't receive elsewhere, and apprentices were motivated to continue as they received more knowledge as well as higher wages. Conversely, this labor relation worked for master craftsmen because they were able to recoup lost investment costs as apprentices became skilled, but very underpaid, craftsmen. Agricultural apprenticeships that are a single farm season or less in duration eliminate the opportunity for apprentices to become truly skilled not only due to time constraints, but because farmers are not incentivized to train workers who plan to leave in just a few months' time. Providing adequate training could actually be harmful to host farmers, for it leaves them with apprentices only during the time when they are most costly and least skilled. Employers in early twentieth century Britain "emphasized that an apprentice in the initial years was 'an expense rather than a profit'" (Elbaum and Singh 1995), a sentiment I often heard as an agricultural apprentice myself. Today's apprenticeships, however, are not long enough for farmers to gain lost costs by utilizing apprentices who become skilled workers but are still paid an apprentice's wage. It seems unlikely that under current circumstances, farmers can be fully committed to

training apprentices without receiving the benefit of the apprenticeship model that comes with terms several years in length.

Another key part of apprenticeships throughout history that is missing in present day agricultural apprenticeships is the mechanisms in place that limited entry into the trades. It is curious that today's farmers do not openly seek to manage entry into their profession, given that more farmers means increased competition. As Margaret Gray (2013) documents in the Hudson Valley, some new farm stands and farmers markets have been met with hostility by local farmers who see them as a threat to their farm's individual profits. One explanation for not limiting the number of apprenticeships is the possibility that many of today's apprentices do not go on to become farmers. Unlike today's agricultural apprenticeships that limit apprenticeship participation based on privilege, prospective apprentices in the past were constrained by a limited number of available apprenticeship positions, as explained by Elbaum and Singh (1995). Very important to the apprenticeship model was a certification system whereby an apprentice's certificate from his employer showed the length of the training, or apprenticeship, term. This certificate, or "lines" as it was called, was not only important to prove the worth of a skilled journeyman but to deter apprentices from leaving their apprenticeship before its agreed-upon conclusion (Elbaum and Singh 1995). Apprentices without a certificate had difficulty finding employment, particularly employment that paid high wages. This system, in combination with host employers' provision of higher wages as apprentices became more skilled, served to successfully deter many apprentices from quitting before employers were able to realize the arrangement's profitability. Today's agricultural apprentices, who may remain on a farm for just a single season, more closely resemble traditional, seasonal farm labor rather than the apprenticeship model associated with medieval Europe.

A few of the agricultural apprenticeships this thesis evaluated grant a certificate upon completion, but it is not clear that such certificates have much weight within the small-scale, sustainable farming sector on the whole. Those programs that do offer certification include the Dairy Grazing Apprenticeship (whose certification may hold more weight as a federally accredited program) (Dairy Grazing Apprenticeship 2016a), North American Biodynamic Apprenticeship Program (Biodynamic Association 2016), and the Organic Farmer Training Program at Michigan State University that grants "certificate[s] from MSU Student Organic Farm, MSU Department of Horticulture and the MSU Center for Regional Food Systems" (Michigan State University 2015). College of the Ozarks and Warren Wilson College, both work colleges, include students' work evaluations or grades on their transcripts (College of the Ozarks 2017; Warren Wilson College 2017). This is meant to be helpful for students when seeking employment, but is not necessarily meant to convey certification as a skilled farmer or farmworker. Outside of academia, apprentices may not be motivated to stay the entire season, or to pursue a second apprenticeship term, without any guarantee that it will result in clear educational or career outcomes. Also noteworthy is that whereas apprenticeships in other sectors train skilled workers, agricultural apprenticeships are focused on training farmers; little attention is paid to creating a skilled labor force. Lack of industry-wide certification among agricultural apprenticeships detracts from the meaningfulness of certification when it does exist within programs, and reflects a larger issue of lack of common standards.

Some agricultural apprenticeships ask students to complete a project, possibly meant to imitate a pre-modern apprentice's "masterpiece." This masterpiece was "the culmination of an apprentice's labors" (Perlin 2012, 47). In today's agricultural apprenticeships, however, it is not clear that this is the purpose of projects, such as those undertaken in the North American

Biodynamic Apprenticeship Program, Vilicus Farms Registered Organic Farmworker Apprenticeship, or Cal Poly's Organic Farm program. In the University of California, Davis' Student Farm program, students are given the option to complete a project, but it is not mandatory (Regents of the University n.d.). Projects that seem closest to an apprentice masterpiece are the crop plan apprentices at The Seed Farm are required to create, which includes "crop selection, fertility, pest management and marketing," or more so, the business and/or production plans that students at The Evergreen State College Organic Farm and Michigan State University Organic Farmer Training Program are required to create. However, even if the apprentices of a few agricultural apprenticeship programs complete a project integrating their learning, this is clearly not consistent across all agricultural apprenticeship programs—or even the majority of them.

This section is not meant to be a detailed overview of various types of apprenticeships throughout history, nor is it meant to romanticize apprenticeships of the past. The penetration of capitalism into society changed the nature of apprenticeships over time (Perlin 2012), subjecting apprenticeships to the model of profit maximization and accumulation that still governs our economic system. Perlin (2012) points out the coercion and violence sometimes present in apprenticeships of the past, while Elbaum and Singh (1995) acknowledge that employers sometimes exploited apprentices. What this section is meant to highlight, however, is the existence of serious differences between the apprenticeship model as it has been traditionally understood and enacted and the apprenticeship model as it is understood and enacted within small-scale, ecologically-conscious agriculture today. In fact, apprenticeships in the United States have never exactly replicated those in Europe for numerous reasons, as Perlin (2012) and Elbaum and Singh (1995) explain, and continue to have significant differences from those in

other countries. Please refer to table 9 for further similarities and differences between modern agricultural apprenticeships, modern non-agricultural apprenticeships, and pre-modern non-agricultural apprenticeships. These similarities and differences help illuminate the ways in which modern agricultural apprenticeships are likely to create or exacerbate social injustice. My findings shown in table 9 support the recommendation that future research study the rise of agricultural apprenticeships in conjunction with the rise of internships, to which they might be more akin and, in fact, are often called. Ross Perlin (2012, 58), author of "Intern Nation: How to Earn Nothing and Learn Little in the Brave New Economy," writes that "Internship boosters have invoked apprenticeships without studying their history or evolution…Internships have grown up in a permissive period, ill disposed to regulation and blind to labor issues." Advocates of agricultural apprenticeships must study the history of both apprenticeships and internships to create a clearer picture of their goals, practices, and contributions to social equity or inequity.

Table 9. Comparison of forms of oppression in modern agricultural apprenticeships in the United States, modern non-agricultural apprenticeships in the United States, and pre-modern non-agricultural apprenticeships

Form of Oppression	Modern Agricultural Apprenticeships in the United States	Modern Non-agricultural, Registered Apprenticeships in the United States	Pre-Modern Non-agricultural Apprenticeships
Powerlessness	Apprentices or farmworkers have no role in program development, except at some academic institutions.	Apprentices typically have no role in program development.	Apprentices typically had no role in program development.
	Nonprofit hubs facilitate some programs, but leave most decision-making up to host farmers and prioritize farmers' needs over apprentices'.	Active involvement of labor unions (Perlin 2012) helps protect workers.	Guilds regulated apprenticeship programs but rules favored master craftsmen more than apprentices.
	Discourse says that limited "real world" opportunities exist to gain environmentally sustainable farming skills, positing not only apprenticeships, but apprenticeships at for-profit farms, as the only way to learn.	Other opportunities to gain skills in a trade exist, with registered apprenticeships one option.	Limited opportunities to gain skills in a trade.

Form of Oppression	Modern Agricultural Apprenticeships in the United States	Modern Non-agricultural, Registered Apprenticeships in the United States	Pre-Modern Non-agricultural Apprenticeships
Exploitation	Unclear if agricultural apprenticeships consistently result in skilled farmers	Apprenticeships result in skilled workers	Apprenticeships resulted in skilled workers and craftsmen
	Few programs issue certificates, but when they do, unclear what weight this holds within the sustainable agriculture community.	Apprentices receive certificate upon completion impacting ability to gain employment.	Apprentices received certificate upon completion impacting ability to gain employment.
	Apprentices sometimes complete a project, but this depends on the program and is not necessarily a culmination of skills learned.	Apprentices do not necessarily complete a "masterpiece" project.	Apprentices completed a "masterpiece," the culmination of their new skills.
	Apprentices typically receive no or low-wage monetary compensation.	Apprentices earn higher wages as skills increase and time goes on (Perlin 2012).	Apprenticeship participation ensured higher wages upon completion and/or the ability to start one's own business.
	Non-monetary compensation often provided, increasing apprentices' reliance on host farmers to meet their needs, in a capitalist economic system.	Monetary compensation plus benefits such as health care and pension plans provided (Perlin 2012) in a capitalist economic system	Monetary and non-monetary compensation, which can lead to paternalistic labor practices, provided in a non-capitalist or emerging capitalist economic system.
	Extremely high variability in how the terms "apprenticeship" and "internship" are used	"Registered apprenticeship" connotes certain standards, differentiated from unregistered apprenticeships or internships	"Apprenticeship" depicted a particular labor relation, not similar to what is today an internship/apprenticeship; internships non-existent
	Apprenticeships are typically less than one year in length, preventing apprentices from receiving sufficient training and farmers from recouping investment costs	Apprenticeships are 1-6 years long, averaging 4 years in length, providing more time for apprentices to receive sufficient training and employers to recoup investment costs	Apprenticeships were several years long, allowing time for apprentices to receive sufficient training and employers to recoup investment costs
Marginalization	Apprenticeships do not value or promote farm labor as a career, contributing to farmworker marginalization across the food system.	Apprenticeships value skilled labor.	Apprenticeships valued skilled labor as well as skilled master craftsmanship.
Cultural Imperialism	Apprentices overwhelmingly white, well-educated, and privileged. Farmworkers do not have access to apprenticeships.	Apprenticeships are generally available to all (Perlin 2012).	Apprenticeships were generally available to all, with wages kept high so as not to exclude the poor, but the number of positions was limited to restrict entry into the trades.
Violence	Not applicable according to Young's (1990) definition	Not applicable according to Young's (1990) definition	Sometimes applicable according to Young's (1990) definition

Legality, Social Justice, and Contribution

This thesis examined the goals and practices of agricultural apprenticeships in the United States and how these apprenticeships address social justice to better understand how the alternative food movement contributes to labor justice for a more socially equitable food system. Other criteria including legality and various certification standards measure labor relations in different ways. The Agricultural Justice Project, a collaboration of farmers and farmworkers, has developed "Social Stewardship Standards in Organic and Sustainable Agriculture" that guide its Food Justice Certification criteria for farms and buyers of farm products (Sligh et al. 2012). The Standards' Executive Summary reads:

> In recognition of the vital role that interns/apprentices have played in organic and sustainable agriculture and the commitment of many farmers to training the next generation, the standards include a section devoted to interns. The standards are based on the fact that interns are inherently distinct from wage laborers, and therefore have distinct rights and responsibilities. These standards ensure the following:
>
> - A clear, mutually agreed-upon, written contract laying out the expectations and assuring the intern/apprentice that the farmer will provide the desired instruction.
> - A fair stipend to cover living expenses.
> - All other rights accorded to farm employees. (Sligh et al. 2012, 2)

These farmworker rights include the freedom of association, fair conflict resolution procedure, living wages, safe and adequate housing when provided, and health and safety protections (Sligh et al. 2012). Despite the assertion that apprentices are entitled to the same rights as other farm employees, the document later clarifies that apprentices "are exempt from the portions of these standards related to economic compensation. Instead, the intern/apprentice and the farmer shall agree on a fair stipend to cover the living expenses of the intern while compensating the farmer for providing instruction" (Sligh et al. 2012, 36). Interestingly, these standards attribute this

exemption to the purpose of apprenticeships being primarily educational, rather than a lack of the farmers being able to pay wages.[17] What these standards do not clarify is what qualifies as education, or what might give this organization the expertise to be able to say. Although farmworkers had a voice in developing the Social Stewardship Standards, it is not clear that apprentices played any role, or that apprentices are actually included in the process of individual, certified farms determining the amount of stipend apprentices are paid, as suggested in the standards. It also seems likely that farmworkers, generally excluded from apprenticeship programs, did not participate in developing these social justice standards for apprentices. It is hard to imagine that farmworkers would have agreed to being exempt from economic compensation standards. The Agricultural Justice Project's Social Stewardship Standards provide standards for farmworkers and different standards for apprentices, yet do not provide standards regarding what an apprenticeship actually is.

Pie Ranch, as discussed in the section "Agricultural Apprenticeships in Practice," is a nonprofit agricultural apprenticeship program that charges tuition, room, and board; after taking these costs into account, Pie Ranch ultimately pays apprentices a $600 stipend for living expenses and a $100 health stipend (Pie Ranch n.d.). Determining the monetary value of compensation such as housing and food may be a useful step for farmers looking to legally protect themselves. It might also even contribute to fairer labor practices for farmworkers, including apprentices. Pie Ranch is the only farm in this study that expressly states the aim of its apprenticeship program as developing "organic farmers committed to social justice" (Pie Ranch n.d.). This nonprofit farm includes in its strategic plan "Incorporat[ing] Racial Justice and Anti-

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23. These standards do address this issue elsewhere, permitting farmer-employers who are unable to pay a living wage to be food justice certified so long as they document this inability and meet additional requirements (Sligh et al. 2012).

Oppression practices into Pie Ranch's culture and activities" and "Nourish[ing] work/life balance for staff" (Pie Ranch "Strategic Plan" n.d.). However, given that non-monetary compensation is not equivalent to monetary compensation, as this thesis research discovered, quantifying the cost of tuition, food, and housing does not necessarily make the farmer-apprentice exchange socially just.

Developing and supporting agricultural apprenticeships that are environmentally, economically, and socially just will entail more than creating apprenticeships that are considered legal under the law. This thesis contributes to social change within the food system by suggesting that social justice within agricultural apprenticeships will only be achieved if farmers, farmworkers, and advocates of a sustainable food system start asking what ought to be done, rather than what will be done under farmers' economic constraints. Instead of, "Mentors commit to providing their apprentices with the highest quality educational and employment experience *within their means*" (Quivira Coalition 2017; emphasis added), the sustainable agriculture movement should be asking how to expand the means of farmers and farmworkers, not that of farmers first and farmworkers if possible.

What does the sustainable agriculture movement really stand for, or want to stand for? Discourse indicating that apprenticeship programs aspire to be fair and inclusive only goes so far if labor relations themselves are highly exclusionary. As the previous section illustrated, the labor relations of agricultural apprenticeships are complex and should be more deeply measured against oppression in its varying manifestations: powerlessness, exploitation, marginalization, cultural imperialism, and violence. As illustrated in The Agricultural Justice Project's "Social Stewardship Standards in Organic and Sustainable Agriculture" (Slight et al. 2012) and other guidance created for farmers, such as the "California Guide to Labor Laws for Small Farms"

(Alcorta, Beckett, and Knox 2013), these guides prioritize the needs of farmers over farmworkers. They do so by requiring minimum labor standards be met only when farmers can afford to do so, as in the case of the former, or by explaining how minimum labor standards can be met, as in the case of the latter, for the purpose of legally protecting farmers rather than socially and economically empowering farmworkers. One of many exemptions that the "California Guide to Labor Laws for Small Farms" points out is an exemption granted to a farm participating in a government-registered apprenticeship program to pay apprentices below minimum wage (Alcorta, Beckett, and Knox 2013, 6). Even the government is willing to make some exceptions for farmers. This guide concludes that farmers should "comply with as many [laws] as possible," implying that it is acceptable if not all legal requirements are adhered to. Whether intentional or unintentional, the alternative food movement should reflect on whom it represents, and whom it does not.

Agricultural apprenticeships in the United States must be much more clear and consistent in the meaning and use of "apprenticeship" and "internship," including what differences there are, if any, and what the goals and practices are of each. This thesis examined the goals and practices of agricultural apprenticeships in the United States and how these apprenticeships address social justice to better understand how the alternative food movement contributes to labor justice for a more socially equitable food system. This thesis found common themes as well as significant differences among agricultural apprenticeship programs. If high quality apprenticeships are to be developed and supported, the sustainable agriculture movement needs a shared vision to work toward.

One key axis along which apprenticeships hinge is the extent to which farmers strive to achieve socially just farm labor relations and recognize the connections between low-paid or

non-waged apprenticeships and an agricultural production system in the United States that has always been subsidized by cheap farm labor. A future of socially just apprenticeships depends on engaging questions that ask not only if agricultural apprenticeships are meeting stated goals such as creating new farmers, but if the creation and success of these new farmers is contingent upon privilege and a system that perpetuates the marginalization of others. Small-scale and medium-scale farmers who are a part of the alternative food movement are often engaging in commendable practices to sustain or regenerate environmental resources, all within the context of an industrialized food system that places these farmers at a serious disadvantage. But in order to build a food system that is also economically and socially just for all involved, agricultural apprenticeship programs must not use an exploitative system as the basis for judging their own practices. A future of farming that guarantees economic and social justice for farmers, farmworkers, and apprentices alike depends on it.

Chapter Five

Conclusion

This thesis examined the goals and practices of agricultural apprenticeships in the United States and how these apprenticeships address social justice to better understand how the alternative food movement contributes to labor justice for a more socially equitable food system. If the alternative food movement seeks to create and support socially just farm labor relations, it must more deeply interrogate agricultural apprenticeship program goals and practices and how these contribute to justice or, conversely, oppression. First asking "What are the goals of agricultural apprenticeships in the United States?", this thesis found that the top stated goals of apprenticeship programs are to educate about sustainable agriculture and create new farmers, although much fewer programs aim to systematically connect apprentices with resources such as land and capital upon completion. Despite evidence that at least some agricultural apprentices across the Global North are fulfilling a crucial labor need, some apprenticeship programs affiliated with academic institutions are the only apprenticeships to explicitly acknowledge this and place value pointedly on labor. Also largely absent from apprenticeships' goals is the training of host farmers, even though farmers are not required to demonstrate adequate teaching skills prior to participation. Social justice is not a stated goal of most apprenticeship programs. Advocates of a new food system might assume that this is a goal of small, local farms, but apprenticeship programs do not indicate that social justice for workers is much of a consideration, let alone a reality.

The ways in which independent farms, nonprofit hubs, or colleges and universities implement agricultural apprenticeships through their practices is highly variable. For instance, a wide variety of educational methods are employed to address a wide variety of educational topics. The two most popular forms of education are hands-on training and field workshops and

the two most popular topics of education are environmental stewardship and direct sales and marketing. The least popular educational topic, addressed by only one program, is social justice. The ways in which apprentices are compensated is also highly variable, with programs using a combination of stipends, wages, housing, and/or food. Interestingly, while some programs pay a stipend or wages, other programs (at some nonprofit and academic farms) charge tuition and may not pay any stipend or wages. This finding, along with others pertaining to the inclusion of social justice, broadly applicable educational goals, training and evaluation of instructors, and involvement of apprentices in shaping their learning, suggests that further research is needed regarding the differing roles of agricultural apprenticeships on academic, for-profit, and nonprofit farms. This could include studying the connections between programs' and affiliated organizations' goals and practices. Further research might help explain if different types of farms are better suited for introductory, immersive farming experiences—which perhaps should not be called apprenticeships if they are not preparing participants for a vocation—versus those intended for apprentices who are committed to farming as a career. This is also warranted given the disagreement among the apprenticeship community as to which types of experience constitute the best training, and scholars' and apprenticeship programs' recommendation for increased collaboration between academia and farms. Although the practices of agricultural apprenticeship programs vary significantly, themes do emerge when distinguishing between those offered by independent farms, nonprofit hubs, or colleges and universities.

Examining U.S. agricultural apprenticeship labor relations in discourse and praxis according to various types of oppression revealed that these apprenticeships contribute to powerlessness, exploitation, marginalization, and cultural imperialism. They contribute to powerlessness amongst apprentices by not including them in program development, selecting

apprentices that most closely align with the values of the farmer, and perpetuating discourse that posits apprenticeships as the only or best way to become a farmer, leaving aspiring farmers with few choices for learning how to farm. Programs also prioritize farmers' needs, while the seasonality of positions limits apprentices' ability to voice concerns, organize, or be heard. Certain aspects of apprenticeships may lend themselves to exploitation, such as the disconnect between labor and education in practice, paternalistic relationships between apprentices and their host farmer, or nonprofit mediation of the farmer-apprentice exchange. Further, incongruity across programs makes it difficult for prospective apprentices to understand the conditions of apprenticeship programs on individual farms, including what differences exist, if any, between apprenticeships and internships. Educational standards differ according to individual farms and host farmers, but farmers are largely not required to have educational experience or training.

Perhaps the most significant way in which these apprenticeships are not socially just, however, is not by their treatment of apprentices, but by their exclusion of more diverse populations in their programs at all. By emphasizing the importance of farm ownership and management and devaluing farm labor, agricultural apprenticeships promote the viewpoints of a particular interest group, i.e., farmers, among the "next generation" of American food producers, i.e., farmers. This exacerbates the marginalization of farmworkers across the food system by failing to acknowledge the critical role of farmworkers in food production. Immigrant farmworkers and people of color are noticeably absent from agricultural apprenticeships, despite their existing role in producing vast quantities of this country's food supply. This is in part due to apprentices' low monetary compensation and apprentices' willingness to self-exploit, perpetuating farm ownership and management for society's most privileged. These are just a

few of the ways in which apprenticeships contribute to powerlessness, exploitation, marginalization, and cultural imperialism in the food system.

Agricultural apprenticeship programs may not view sustainability in terms of worker well-being because agricultural apprenticeship programs largely represent the interests of farmers, for whom social and economic sustainability is defined by meeting a financial bottom line that allows operations to continue. While this is a valid concern in a capitalist economy, a troubling finding of this thesis is that agricultural apprenticeship programs do not seek to develop programs that have social justice for workers and apprentices, or even social justice at all, as an explicit goal. In fact, apprenticeship programs are tailored to meet farmers' needs, rather than programs being designed to meet apprentices' needs. This sends the message to aspiring farmers who learn that "successful" farming depends on a business model that relies on cheap or unpaid labor. Small farmers may have less political traction than larger producers, but the fact is that small, "family" farmers are held in high esteem by the public (Gray 2014) and by advocates for a new food system. Farmers and their supporters have a responsibility to garner this cultural capital to raise awareness of the structural inequities surrounding farm labor. Rather than being exempted based on their economic status, policies should be developed and advocated for to enable the inclusion of farmworker justice in alternative models of agriculture. Small and local farms should be encouraged to more deeply examine their labor practices to meet the expectations of consumers who may equate "sustainable agriculture" with social equity as well as ecological sustainability. It is dishonest to educate consumers that higher prices account for costs externalized by industrialized agriculture, but not mention the subsidies received by alternative and industrialized agriculture alike in the form of cheap labor.

Truly transformative agriculture will require cultural shifts in thinking as well as systemic change. If the alternative food movement continues to embrace agricultural apprenticeships that elide farm labor issues—and do not intentionally pursue social justice—it will never be able to achieve social equity in the food system. Many scholars illuminate the fragmented nature of the alternative food movement (Brent and Kerssen 2014; Holt-Giménez and Shattuck 2011; O'Connor 1993), and this thesis is just another example in the narrative of that disconnect between food, farm, labor, and other activists. Ironically, overlooking the structural issues that undergird economic instability on alternative farms by continuing the trend of low financial rewards through agricultural apprenticeships misplaces attention on a romanticized vision of family farming. Efforts could otherwise be directed toward creating policies and programs to economically support small-scale, ecologically-conscious farms through structural changes. Luckily, the increase in aspiring farmers, combined with the rise in agricultural apprenticeships, offers the opportunity to educate a new generation. With apprenticeships' primary goal being to educate about sustainable agriculture, will this education include farmworker justice in discourse and practice? Agricultural apprenticeship programs have the potential to chart a new course for agriculture, one that brings together farmers, apprentices, farmworkers, and advocates to envision and enact a future that places people, not profits, at the center. It is up to each of us to help turn this vision into reality.

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Appendix

Table 10. Names of agricultural apprenticeship programs and names and types of organizations affiliated with agricultural apprenticeship programs

Agricultural Apprenticeship Program Name	Affiliated Organization Name	Type of Affiliated Organization
Dairy Grazing Apprenticeship	Dairy Grazing Apprenticeship	Nonprofit Hub
Intern Program	Foundation for Agricultural and Rural Resource Management and Sustainability (FARRMS)	Nonprofit Hub
Farm Apprenticeship	Maine Organic Farmers and Gardeners Association	Nonprofit Hub
North American Biodynamic Apprenticeship Program	Biodynamic Association	Nonprofit Hub
FarmsNOW	Rogue Farm Corps	Nonprofit Hub
Growing Farmers Initiative	Stone Barns Center for Food and Agriculture	Nonprofit
FarmReach	Farm Education Resource Network (FERN)	Nonprofit Hub
New Agrarian Program	Quivira Coalition	Nonprofit Hub
Internship	Brown's Ranch	For-profit Independent Farm
Apprenticeship Program	Caretaker Farm	For-profit Independent Farm
Internship	Full Belly Farm	For-profit Independent Farm
Practicum Student Program	School of Adaptive Agriculture (formerly Grange Farm School)	Nonprofit[a]
Apprenticeship	Hawthorne Valley Farm	Nonprofit
Apprenticeship	Pie Ranch	Nonprofit
Apprenticeship	Polyface, Inc.	For-profit Independent Farm
New Farmer Training Program	The Seed Farm	Nonprofit
Apprenticeship	Sisters Hill Farm	Nonprofit
Registered Organic Farm Worker Apprenticeship	Vilicus Farms	For-profit Independent Farm
Farm Student Labor Program	Berea College	Academic
Organic Farm	California Polytechnic State University (Cal Poly)	Academic
Sustainable Agriculture Apprenticeship Program	Center for Environmental Farming Systems	Nonprofit (Within Academic Institution)
Agriculture Department	College of the Ozarks	Academic

Agricultural Apprenticeship Program Name	Affiliated Organization Name	Type of Affiliated Organization
Organic Farm	Evergreen State College	Academic
Organic Farmer Training Program	Michigan State University	Academic
Student Farm	Agricultural Sustainability Institute at University of California, Davis	Academic
Farm Crew	Warren Wilson College	Academic

[a]This nonprofit, the School of Adaptive Agriculture, has nonprofit status through a fiscal sponsor.