

The Pennsylvania State University

The Graduate School

College of Agricultural Sciences

**LABORING TO LEARN AND LEARNING TO LABOR:
EXPERIENCES OF FARM INTERNS ON SUSTAINABLE FARMS**

A Thesis in

Rural Sociology

by

Kathleen Faye Wood

© 2013 Kathleen Faye Wood

Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science

December 2013

The thesis of Kathleen Faye Wood was reviewed and approved* by the following:

Carolyn Sachs
Professor of Rural Sociology
Chair of Women's Studies Department
Thesis Advisor

Kathryn Brasier
Associate Professor of Rural Sociology

Leland Glenna
Associate Professor of Rural Sociology

Anouk Patel-Campillo
Assistant Professor of Rural Sociology

Ann Tickamyer
Professor of Agricultural Economics, Sociology, and Education
Head of the Department of Agricultural Economics, Sociology, and Education

*Signatures are on file in the Graduate School

ABSTRACT

Farm internships offer inexperienced women and men an opportunity to acquire farm skills and learn sustainable farm practices by laboring with a farmer. Little however, is known about how farm internships meet these objectives and therefore a better understanding is needed of how this practice functions as both a learning and labor process, the meaning assigned to the experience by farm interns. This thesis explores themes associated with the structure of farm internships and the value of the experience from the perspective of women and men who interned on farms in Pennsylvania and the Northeast region of the US. The three exchanges primary to the structure of farm internships investigated in this study were the labor, learning and social exchanges. It specifically addresses the ways in which social exchanges organized the farm internship and the meaning interns assigned to the experience. The value of farm internships was assessed by focusing on the motivations and perceived benefits assigned to the practice by farm interns. The demographic characteristics of farm interns are presented, which is one of the first attempts to profile this population. In addition, this thesis explored whether farm internships establish socially responsible practices on sustainable farms.

Both qualitative and quantitative data were utilized to collect data for the purposes of studying farm internships. An understanding of agrarian political economy guided the theoretical approach to how the farm internship is structured; Weber's conceptualization of substantive rationality is used to investigate the subjective perspective of interns' participation in the structure. Results indicated that training during farm internships focuses on the intern's ability to learn from their labor, with minimal instruction provided by farm mentors. Farm tasks were substituted as a learning tool according to a farm's labor demands during the farm internship. Consequently, farm interns received the most instruction on topics that involved manual labor on

farms. Farm interns were compensated during the internship with food and a small stipend. Farms in rural areas provided housing as remuneration; the conditions of such housing arrangements varied widely among participants. Resources identified by participants as instrumental in allowing them to take a salary sacrifice were a college education and support from family members. The informal nature of farm internships makes the social context of such arrangements important. Three different types of relationships between farm interns and farmers are identified that influence the structure and experience of farm internships. This typology includes the farm intern treated as a member of the family, the farm intern learning beside a farm manager, and a farmer who supervises farm interns in more managerial capacity.

The meaning that participants assign to their experiences focused on social and individual values unrelated to capital returns. Working and learning on farms provided participants the opportunity to live out social values promoted by the local food movement and dealing with social justices issues such as equitable food access. Individual values that motivated farm interns to participate in an internship included exploring farming as a profession and becoming more aware of how food is grown on sustainable farms. Individual benefits that farm interns valued dealt with healthy eating, working in nature, and using one's body to accomplish work tasks. Nevertheless, farm interns recognized that their function as cheap labor force, justified by alternative motives and benefits, was an inequitable exchange in traditional renderings of the labor process. Implications of these findings for responsible and just treatment of farm interns and laborers on sustainable farms are advanced.

TABLE OF CONTENTS

LIST OF FIGURES	vii
LIST OF TABLES	viii
ACKNOWLEDGEMENTS	ix
Chapter 1 The Problem	1
Chapter 2 Literature Review and Conceptual Framework.....	4
Why pay attention to interns on sustainable farms?.....	4
2.1 Two Theoretical Approaches to Understand the Farm Intern Experience	9
2.2 Political Economic Analysis of the Social Organization of internships	10
2.3 Weberian Rationality as a Framework to Understand the Experience of Farm Internships	15
2.4 Historical and Contemporary Perspective on Farm Internships.....	17
2.4.1 Historical Overview of Apprenticeships	18
2.4.2 Modern Farm Internships	19
2.5 Research Questions	26
Conclusion	27
Chapter 3 Methodology and Methods.....	29
3.1 Research Approach	30
3.1.1 Interpretative Phenomenological Analysis.....	30
3.1.2 Feminist Perspective	31
3.2 Methods.....	31
3.2.1 Situating the Study	34
3.2.2 Research Sampling Framework.....	37
3.2.3 Online Survey.....	37
3.2.4 In-depth interviews.....	41
3.2.5 Farm Journals	45
3.2.6 Focus Groups.....	48
3.2.7 Data Analysis	51
3.2.8 Analysis of Findings.....	55
3.3 Ethical Issues.....	55
3.3.1 Trustworthiness of the Research Process	55
3.3.2 Situating the Researcher.....	57
Conclusion	57
Chapter 4 Interpretation and Analysis of Findings	59
4.1 Who are Farm Interns?.....	59
4.1.1 Farm Intern vs. Farm Apprentice	59

4.1.2 Descriptive Characteristics of Farm Interns	62
4.2 Motivations of Farm Interns.....	70
4.2.1 General Motivations to Become a Farm Intern	71
4.2.2 Expectations of Farm Internship Experiences.....	82
4.2.3 Factors that Influence Farm Interns’ Choice of Farms.....	86
4.3 Labor Exchange	89
4.3.1 Farm Internship Labor Process	90
4.3.2 Farm Interns’ Labor	96
4.3.3 Remuneration – Sustaining Interns on Farms	103
4.4 Learning Exchange	115
Mode of Learning.....	116
4.5 Social Organization of Farm Internships	129
Farm Internship Social Exchange Typology	130
4.6 Perceived Benefits of the Farm Internship Exchange	135
4.6.1 Socially Oriented Benefits	136
4.6.2 Individual Benefits	142
4.7 Farm Interns’ Assessment of Farm Internships.....	148
Chapter 5 Conclusion.....	153
5.1 Farm Internships Are Informal Work Arranged According to the Labor Organization of Sustainable Farms	154
5.2 Farm Internships Function as a “Learn-by-Doing” Model of Vocational Training	155
5.3 Individual Adaptation Strategies Do Not Encourage Just Treatment for Farm Labor.....	158
Socially Just or Just Barely Sustainable?	159
5.4 Contributions of this Study	162
5.4.1 Contributions to the Sociology of Agriculture	162
5.4.2 Contributions to Practice.....	163
5.4.3 Significance for Society	164
5.5 Weaknesses of the Study.....	165
5.6 Questions for Future Research	166
Appendix A. Semi Structured Interview Guide	168
Appendix B. Interview Questionnaire	170
Appendix C. Farm Journal Introduction Letter.....	171
Appendix D. Focus Group Moderator Guide.....	172
References.....	173

LIST OF FIGURES

Figure 4-1.....	68
Figure 4-2.....	100
Figure 4-3.....	104
Figure 4-4.....	117
Figure 4-5.....	117
Figure 4-6.....	119
Figure 4-7.....	119
Figure 4-8.....	120
Figure 4-9.....	120

LIST OF TABLES

Table 4-1: Survey respondent identification as intern or apprentice	60
Table 4-2: Descriptive characteristics of study participants	61
Table 4-3: Features of survey respondents during farm internship.....	65
Table 4-4: Farm intern health insurance coverage and provider	67
Table 4-5: Farm interns future participation in sustainable agriculture.....	69
Table 4-6. Farm interns' rating of motivations for participating in a farm internship.....	72
Table 4-7: Survey respondents' rating of internship features for importance	87
Table 4-8: Length of survey respondents' farm internships	92
Table 4-9: Products grown by study participants during a farm internship.....	98
Table 4-10: Most common farm tasks performed by farm journal participants	101
Table 4-11: Remuneration received by survey and interview participants during a farm internship.....	103

ACKNOWLEDGEMENTS

Brevity is not a feature of this thesis; long sentences are my undoing as a writer. The magnitude of support from many (really) wonderful people brought this thesis to fruition. It would be impossible for anyone to be brief under such generous circumstances.

The farm interns who shared their stories and insights with a curious stranger should be commended. They should also be thanked for their hard work during the growing seasons when their hands brought food to tables. The Pennsylvania Women's Agricultural Network (PA-WAgN) and Pennsylvania Association of Sustainable Agriculture (PASA) were helpful in disseminating the websurvey and promoting the research. A generous grant from Northeast SARE provided funds to enlist the talents of three women instrumental in the research phase of this study. Susan Thompson spent many hours of her life transcribing interviews, more hours than there was grant money, and I cannot be more grateful. Katie Mann stepped into the project when I needed help organizing recruitment efforts. Her enthusiasm and courage leave deep imprints on this thesis and my life. Stephanie Bailey was the rock and the light that made this project happen. In the formal capacity of a research assistant, Stephanie was thoughtful, dedicated and applied herself with the conviction that our work will make a contribution to sustainable farming practices. As a friend, she brings out the best and makes the world kinder.

The Rural Sociology program at Penn State generously supported my academic pursuits from 2011-2013. Dr. Carolyn Sachs continuously reminded me that I was doing too much, but consistently and kindly supported me in the work. She read countless drafts and provided valuable advising throughout. I am a better scholar and researcher for the mentorship of Kathy Brasier, who listened and encouraged my voice. There are many friends in State College whose company brought delight to being a graduate student in the geographic center of Pennsylvania: Dara Bloom, Deb Brubaker, Nina Cohen, Paige Davis, Anne Delassio-Parson, Mark Dempsey, Jen Hayden, Kristal Jones, Leslie Pilen, Danielle Rhubart, Colleen Shaughnessy and Katie Tavenner.

Friends who became family are Lyn Garling and Patty Neiner. During all of this (being an electron) their farm was my geographic center, and in their company I am home. Susanna swayed gently and encouraged sweetly as we navigated distance and transitions; such love is a gift. Mary Ellen brings joy and makes me feel good when I do not feel good enough. I could not craft enough long sentences to thank my mother who has been a dedicated editor. Both of my parents encourage me to create a more just world by listening, thinking and acting compassionately. My hope is that this research is a reflection of those values.

Chapter 1

The Problem

Inexperienced people who are interested in sustainable farming have become willing laborers for the opportunity to learn (by hand) the art and science of growing plants and animals for food. Many sustainable farmers who depend on helping hands to cultivate the harvest offer these people a chance to learn while laboring through a farm internship. Despite its importance in teaching new generations to farm sustainably and meeting labor demands on sustainable farms, informal farm internships are not the most visible feature on the sustainable food landscape. There are no published sociological papers on the practice. The USDA offers programs to new and beginning farmers who wish to own their own operation, but no efforts are directed to farm interns who are discerning whether farming is their professional calling. Even the greatest champions of the local food movement say little about who accomplishes all the work on farms where people power is preferred to synthetic chemicals and large machinery. The scholarly inquiry presented in this thesis is one of the first to explore the experiences of women and men who trade their labor for an opportunity to learn how to grow food sustainably during a farm internship.

In reaction to the industrialization of agriculture in the US, a contemporary local food movement promotes the use of more sustainable economic, environmental and social practices to grow food. Books and movies, public campaigns, new types of restaurants and direct marketing channels deliver local food campaigns such as, "Eat Local" and "No Farms. No Food." directly to eaters' plates. With amplified attention paid to the origins of food in the US food system, more people are deciding to experience for themselves how food is grown. The profile of these people who participate in farm internships and what they seek from their experiences is central to this research.

Internships are certainly not unique to sustainable agriculture; trade apprenticeships have existed as a formal practice to train and teach novices on the job since Medieval Europe. In the US however, neither apprenticeships nor internships were institutionalized as a formal channel to enter a profession, particularly not in farming where farm families were the primary source of acquiring skills. The modern farm internship is not historically unique; in its contemporary iteration as a workplace learning program, it functions as both an essential source of farm labor and the primary means of teaching sustainable farm methods to persons with no background in farming. These attributes make it a distinctive social practice in the US food system. Three social exchanges (labor, learning and social) that organize unpaid internships and provide the parameters within which interns and farmers behave during the internship will be explicated and examined in this thesis.

Rural sociologists and scholars who contribute to the fields of sociology of agriculture and food systems have taken up many similar questions about social life underlying the social phenomena examined in this study. These questions primarily speak to how the labor processes on farms are organized according to, and in some cases in resistance to, capitalist penetration (Friedmann 1978; Mann and Dickinson 1979; Pfeffer 1980). Another line of sociological inquiry related to this study examines the motives or reasons that family farmers use to justify their work in agriculture, reasons which might diverge from motives based on capitalist calculations (Bonanno 1987; Mooney 1988). The social nature of farm internship arrangements resembles informal work described by social economists such as Portes (1994) and the International Labor Organization (ILO 2012). More recently, researchers examining sustainable agriculture have been critical of the class and racial exclusiveness of the movement (Guthman 2011), and the social relations within sustainable food production, distribution and preparation that are exploitative (Allen 2004).

These theoretical traditions, and their corresponding research, informed the conceptual and methodological framework used to investigate what constitutes a farm internship and the reasons people participate. The labor process, as well as the learning model and the types of interpersonal relationships between actors involved in farm internships, are the three primary social exchanges under investigation in this thesis. The meaning and value of the farm internship from the intern's perspective is a second approach employed to understand farm internships. Together, these two theoretical explanations account for the how the farm internship is organized and the rationale that interns employ to justify their participation in the farm internship. A mixed-method design guided the development of four instruments to collect data. Farm journals, a websurvey, in-depth interviews, and informal focus groups were utilized to capture qualitative and quantitative information from participants on the varied and complex experiences of the farm internship. Participants were not randomly sampled to be representative of a prototypical internship experience; rather, samples include a range of experiences in order to provide insight into the farm internship practice from diverse viewpoints.

This thesis is organized as follows. Three arguments that provide justification for studying farm interns are presented at the beginning of Chapter 2. This section is followed by a conceptual framework for the thesis and a review of the literature relevant to assessing the structure and meaning of farm internships from the intern's perspective. The chapter concludes with the study's research questions. Research methodology and methods are described in Chapter 3, which includes the data to be analyzed, methods of analysis, description of the study area and ethical issues of the research. Results of the analysis and importance of these findings are presented in Chapter 4. The thesis ends with a discussion of the implications of the findings, contributions of the study and recommendations for future studies

Chapter 2

Literature Review and Conceptual Framework

Why pay attention to interns on sustainable farms?

The aim of this research is to examine the experiences of people who want to learn to grow food while laboring on sustainable farms. Farm interns who are unfamiliar with agricultural production trade their labor for an education about sustainable farming methods. Pertinent to the future of sustainable agriculture is an understanding of how inexperienced people with an interest in growing food learn to farm. The decline in the number of people who choose farming as a profession and an increase in popularity in food grown sustainably suggests that there is need for more people to contribute their labor to growing food. A gap exists between those interested in filling this role and how they will be trained to be competent farmers. Related to this inquiry are the implications of this practice for labor practices on sustainable farms and the extent that farm internships concretize socially just labor practices. These questions are lived daily by farm interns, and their work to grow food and cultivate skills drives this study. Accordingly, this research was designed to capture the voices of interns whose multi-dimensional experiences may provide insight about the opportunities and barriers for implementing innovative farm internship practices that are equitable and just for the people who participate. The contribution of this project to food systems scholarship is a novel exploration of interns' experiences as a labor force within sustainable agriculture, their motivations and the perceived benefits of participating in a model of agricultural workplace training, and the ways in which social equity is (or is not) achieved in the internship practice as conducted on sustainable farms.

Social sustainability is one of three tenets of sustainability not incorporated into the sustainable agricultural movement

The term “sustainable” is conceptually fluid and answers to diverse agendas (Allen et al. 1991). Sustainable agricultural practices are negotiated within a particular farming context but typically address three broad themes related to the environmental, social and economic implications of using natural resources for human purposes (Allen and Sachs 1992; Kloppenburg et al. 2000). The definition of sustainable agriculture used in this study is articulated by Allen et al. (1991): “A sustainable food and agriculture system is one which is environmentally sound, economically viable, socially responsible, nonexploitive, and which serves as the foundation for future generations.” Put into practice, social sustainability precepts ensure that achieving profit and using natural resources wisely does not impose on the just treatment of people working on sustainable farms.

Discourse on the social sustainability of agriculture receives little attention in local food systems research. Scholars attribute this gap to prioritizing the economic solvency of U.S. agriculture (Shreck, Getz, and Feenstra 2006) and the influence of the environmental movement in alternative farming methods (Allen 2004). However, the economic and environmental elements of agriculture cannot be removed from sustaining a human labor force. The agrarian vision underlying sustainable agriculture imagines a future of owner-operated farms where human labor accomplishes most of the work and the farm sustains the majority of a household’s economic needs (Berry 2004). This type of agrarian standard proposed by Berry (*ibid*) reinstates the importance of the local economy, community, culture and people in harmony within the farming system. This intentional challenge to inequalities provoked by the industrial agricultural model of food production continues a tradition of associating small farms with social justice. However, the philosophies of new agrarianism and the academic and political movements of sustainable

agriculture have only recently begun to investigate whether small and sustainable farm operations are empirically linked to *social* sustainability.

While scholars, activists and farmers assert that sustainable farming is an area where more just agricultural practices can be developed (Allen et al. 1991), but the question remains are these practices socially sustainable for whom? This is particularly the case when considering the indigent earning power and lack of social benefits of farm workers on sustainable farms (Shreck et al. 2006), barriers faced by young people to farm ownership (Hanson, Hendrickson, and Archer 2008), and social exclusion and marginalization of racial minorities and people with lower incomes in the alternative food system (Guthman 2011). Supporters and actors within alternative food movements argue that the values of sustainable agriculture are intended to reorder the socially unjust conditions of industrial food production (Allen 2004). It does so by rejecting methods that divorces the eater from the producer and concentrates power and profit at global loci (Mares and Pena 2011). Yet, researchers and the public largely fail to prioritize changing circumstances where workers' labor on farms is exploited within sustainable agriculture production (Allen 2004; Sbicca 2012).

Hosting farm interns is one means by which farmers have chosen to manage costs and meet labor demands to remain economically viable

Farm internships are an important source of farm labor on sustainable farms and interns are thus a growing presence in the web of actors that configure the alternative food system in the US.

Outreach literature focused on sustainable agriculture internships targeting farmers purport interns to be the next generation of farmers whose work and lives ensure a future of food grown more sustainably (Smith 2005; Powell 2007). Herein is the labor to learn exchange of farm internships: The labor exchange occurs because sustainable farmers seek out interns to meet

production demands while reducing high labor costs due to the use of human power rather than chemicals and heavy machinery on sustainable farms. The learning exchange transpires because farm internships are one of the few training opportunities for people who want to farm sustainably but lack the experience or skills to be successful.

Sustainable farm operations grow crops that are more labor-intensive than mechanized corn and soybeans widely grown in conventional agriculture (Pirog 2000). In farming systems that rely on human labor, the costs associated with paying a workforce are not regained in the cheap food system. Sustainable farm operations must sell products at low prices set by agro-industrial firms (Story et al. 2008). Conventional food prices do not include the real cost of paying hired farm workers (including farmers who supply their own labor to meet production demands) a decent wage and social benefits such as healthcare, access to proper training and bargaining rights (Brown and Getz 2008). Consequently, the US farm sector has profited from a poorly compensated and socially and economically powerless labor pool. Sustainable farms trying to compete with industrial agricultural firms might be compelled to sell their products at low prices and look for ways to cut costs, often at the labor level of their operations. By doing so, they internalize the costs of labor through strategies that include self-exploitation and/or relying on cheap labor. Farm interns are therefore an appealing option considering the structural pressures on sustainable farms attempting to remain economically viable (Pilgeram 2012; Galt 2013).

To cut costs, sustainable farmers offer interns work and training in exchange for alternative remuneration, rather than a wage. Farm interns are not considered farm employees, and therefore do not qualify for benefits or overtime pay. Distinguishing an intern from an employee requires that an internship be unpaid academic or vocational training that does not displace regular workers, does not guarantee employment at the conclusion of the program, and is of no immediate advantage to the employer (DOL 2010). Within the sustainable agricultural

community there is little indication of an ordained internship model or government regulation that enforces the tenants of the Department of Labor's (DOL) definition. Instead, informal arrangements are common on private farms that emphasize teaching sustainable practices through work on farms and supplemental learning opportunities administered by a farm mentor (Jones 1999).

Unpaid farm internships that offer alternative remuneration for labor raise important questions related to the social and economic vulnerability of farm interns and their practical contributions to meeting labor demands on sustainable farms

Research on sustainable agriculture generally focuses on farmers, the environment and consumers. To date, very little scholarship exists on the effect of sustainable agriculture on labor processes (Allen 2004). Even less attention in food systems research and public advocacy is dedicated to the interns who trade their labor for a future in sustainable agriculture. Academics and activists focused on sustainable farm production have overlooked the farm intern perspective. The limited information that is available in the literature speaks to the farmer's goals for implementing a farm internship, not the intent, experiences and outcomes of farm internships for the participants. Scholars studying sustainable food systems have not investigated the farm internship as a labor practice or vocational training program, practices that have overlapping but distinct benefits to the farm intern, farmer and to sustainable farming as a system and social movement. Nor is there empirical research on whether the organization of farm internships engenders social inequities by using cheap labor to subsidize labor demands on sustainable farms. If sustainable farming is a true alternative to conventional agriculture, the treatment of farm interns is critical to whether the labor practices on these farms prevent exploiting persons who work to bring in the harvest.

2.1 Two Theoretical Approaches to Understand the Farm Intern Experience

The following section reviews two theoretical approaches to conceptualize the social organization of farm internships and the personal experiences of participants within this organizational structure. This thesis will be guided by a conceptual framework that will use a political economy theorization of simple commodity production to analyze the role that farm interns play in the labor process on sustainable farms. A Weberian conceptualization of formal and substantive rationalization is also applied to this analysis to examine the experiential factors that influence the perspectives and perceptions of farm interns on the practice.

A Marxist interpretation of the political economy of farming is an authoritative perspective within the sociology of agriculture (Buttel, Larson, and Gillespie 1990; Buttel 2001). This theoretical perspective will be used here to explain the labor process of simple commodity production that relies on family and nonwaged workers to sustain the agricultural enterprise. Farm interns are posited in this study as uniquely situated within the labor process of simple commodity farms as a labor force that relies on the farm's resources for training and basic remuneration to subsist. The arrangements between a farmer and intern resemble a barter agreement where work is exchanged based on a personal agreement and compensation other than a wage. The social organization of farm internships will therefore be investigated from three exchanges that facilitate the practice. These are the labor, learning and social exchanges of farm internships. The meaning(s) that farm interns attribute to the work and the personal experience of being an intern on a sustainable farm is investigated using a less structural conceptualization of social life. A Weberian understanding of formal and substantive rationality assists in understanding a farm intern's motivations and perceived benefits of participating in the exchanges. The personal significance of farm internships is looked at through the motivations and benefits of farm interns, both of which involve elements of substantive reasoning as described by

Weber. This dual theoretical approach allows for a broader treatment of farm internships as constituted both by the structure imposed by the organizing factors of sustainable farm internships while considering the value of farm internships as described by those who trade their labor for learning and the reward of basic resources on sustainable farms.

2.2 Political Economic Analysis of the Social Organization of internships

An essential aspect of agriculture is the human labor required to grow plants and animals for food. Yet, the sociology of agriculture and the field of rural sociology have largely neglected the work of non-farm owners to fulfill the needs of agricultural production in the US, contributing to the invisibility of farm workers (Mize 2006). Borrowing from the Marxist tradition explicating labor processes in capitalist systems, there exist a strong but albeit limited, scholarly inquiry into labor process on family farms to explain the transition of household farm enterprises to capitalist operations (Kautsky 1976; Friedmann 1978; Chayonov 1986; Mooney 1988). Sociological scholarship on the family farm in the early work that proliferated in the 1980's reveals that historically agriculture has been seen as a conundrum for capitalist enterprises because of the relative inability of capital to penetrate these farm operations due to issues of time, space and biological processes that govern food production (Mann and Dickinson 1982). As a result, family farms have traditionally been seen only as areas for self-exploitation and not a site where production requires a capitalist workforce. The lack of grand theory to understand a capital-labor relationship within agricultural production has diminished the attention that is paid to on-farm labor, especially using a Marxist treatment of the labor process. In contemporary sociology, the limited number of articles and books that address agriculture's labor force primarily orient their analysis to persons working on industrial agricultural operations (Buttel 1990).

The Marxist theory of “social relations of production” is an articulation of structural forces that deploy and allocate social labor. This type of “structural power,” an alternative term used by the anthropologist Wolf, shapes the social field of action to render behavior possible or impossible (1990: 590). The utility of studying this dimension of social life is that it contributes to understanding what actions are plausible in social landscapes and how external forces of the world may affect people within these fields (Nuijten 2001). The organizing process itself is central, in that it sets up relationships among people by determining how resources and rewards are allocated and controlled (Labao and Meyer 2001). Structural power related to production of goods and services is the study of the political economy in sociological literature. The use of political economy as a theory to explain internships is intended to bring insight into the processes that organize and orchestrate the social exchanges on farms that host interns. To examine structural power of farm internships is to pay attention to the social processes (exchanges) that organize the practice, being attentive to who shapes this process and for what purpose. To conceive of the labor process as a form of social organization (in this case farms) from Marxian theories on the political economy involves understanding how people and resources are forged, linked and become manifest in variations within production systems (Nuijten 2001).

The labor process can be explained by what is exchanged for a worker’s labor and the production of surplus value by the worker. Therefore, a critical organizing component of the capitalist labor process is the monetary exchange between the person(s) who own the means of production and the laborers who produce for the capitalist. This wage exchange serves to assure the participation of the laborer by providing for her financial needs. The laborer in return produces a good that is then sold or reinvested in the production system by the capitalist and provides the farm owner with surplus value. The survival of this system relies on the purchase and sale of available labor negotiated as a wage. Marx claimed that this was a key characteristic of capitalistic economies in that all goods and services acquire the character of commodities,

obscuring their social origins (i.e. the social relations of production involved in producing them) and thereby, restricting commodities to be defined by their object-like qualities.

In capitalist societies, the owner of production and labor power are often distinct persons. A notable exclusion to this arrangement is based on kinship, which does not depend on a wage contract between two parties of different classes. Household production is reliant on family members to supply the labor for the production system from which they benefit. To avoid paying workers and thus remain competitive in producing goods that meet the household's needs, families enroll their kin to provide free labor. Labor relations among family are therefore non-commodified in that they do not depend on a wage contract between two parties of different classes.

The composite of these two systems is simple commodity production, where household production is "specialized and competitive, and means of production and subsistence must be purchased" (Friedmann 1978:548). The Marxist concept of petty commodity production represents a distinct form of production because it does not separate labor and capital accumulation (Whatmore 1990). However, the traditional Marxist analysis presents difficulty when analyzing the family farm. The home and family were treated as distinct domains in a Marxist theorization of work, but petty commodity production is conceptualized as a place where these domains merge in the labor process. Marx did not explicate the mechanisms by which non-capitalist (kinship) relations and social processes in the family contribute to the labor power used to produce goods and services.

Rural sociologists observing transitions from family to capitalist forms of farming formed a Marxian sociological tradition that analyzes the simple commodity producer from the perspective of the persisting forms of family farms with intensive use of non-wage labor. The survival of non-wage forms of labor on farms in societies with capitalist economies gained three primary sociological interpretations: 1) family farms are transitional and will disappear with

advancement of capitalism; 2) family farms are a unique system resistant to capitalism; and 3) family farms are a system preserved by capitalism, but they maintain some elements that are functional to its workings. Kautsky and Chayanov provided formative works in this area from which the debate was resurrected in rural sociology by Friedmann's (1978) research that examined the capitalist labor process of small wheat producers on the Great Plains. Friedmann (*ibid*) used a Marxist political economy perspective to theorize that the labor relations inherent to simple commodity production enterprises (farms producing for themselves with labor provided through kinship relations) would be maintained to meet production needs of a certain scale, and the family farm therefore remains viable in a capitalist system. Buttel and Newby (1980) in response to Friedman offered an alternative explanation of the persistence of the family farm enterprise. These authors contended that capitalist agriculture and development would constitute a larger share of total production of US agriculture by means of technology and mechanization, essentially compelling family farms to convert to a capitalistic operation. Mann and Dickinson (1978) proposed a composite of these two theories writing that both capitalist and household agriculture could co-exist reasoning that the family farm used social arrangements necessary for food production at a smaller scale. Family farms were therefore impenetrable by capitalism until technology resolved issues of timing related to labor needs on small-scale enterprises. Moreover, as Friedmann notes (1980) family farms exploit labor, including self-exploitation, to produce surplus value.

The farm internship model of teaching people sustainable farming without paying them a wage resembles labor relations inherent to simple commodity enterprises that use nonfamily members to meet farm production needs of a certain scale. These labor relations are central to the social organization of farm internships as they structure the learning experiences and remuneration provided to interns during their time on sustainable farms. In an annual survey of farms who seek interns, eighty to ninety percent of farmers surveyed in the Northeast ranked

“providing farm labor” as “very important” or “the most important reason” for hosting interns (NESFI 2008). Farm interns however, are not family members bound by the commitment to the family. Nor are they waged workers who farmers pay in exchange for their labor and whose labor is regulated by the federal government. Instead, farm interns are engaged in labor as a means to learn, and the conditions of these exchanges are best described as features of informal work.

The International Labor Organization defines informal work as “informal employment (without secure contracts, worker benefits, or social protection) both inside and outside informal enterprises” (2002:12). Informal work arrangements rely on a small scale, casual, unprotected and a contingent labor force (Tickamyer et al. 2010). Informal work can be an exchange of goods and services for labor (a barter system) or paid labor, which is not reported and thereby not regulated (ILO 2012). An understanding of the internship model as informal work is aided by two precepts rooted in social economics: 1) social dynamics such as trust, power, and norms of reciprocity are integral to economic activities and 2) economic activity occurs in a social context which defines these activities (Portes 1994). The social context of internships is thus the labor relations of simple commodity production, the exchange of labor for benefits provided to members of the farm enterprise that include learning and basic essentials, and the personal relationships that make working on farms a personal exchange with other workers in the enterprise.

This study’s examination of the social structure of farm internships emphasizes the organizing processes that shape the farm intern’s experiences on family farm enterprises. This conceptual framework does not seek to support conclusions that impart definitive typologies of family farms as pre-capitalist, non-capitalist or in transition to a capitalist operation but does add complexity to such efforts. The conceptual emphasis is placed on the idea that all economic activity is embedded in relationships between people. The social context of work is particularly important in informal economic exchanges (Portes 1994), of which simple commodity production systems organize the labor and learning exchange. The means of executing an agreement in

informal economies depends on the social framework (*ibid*). The farm intern who exchanges labor for housing, food, a stipend and farm training relies on a personal relationship with the farmer to execute the exchange in the absence of federal regulations. The labor, learning and social exchanges are three elemental facets of the organizing process of the farm internships, and therefore the focus of this thesis.

2.3 Weberian Rationality as a Framework to Understand the Experience of Farm Internships

An understanding of the farm internship experience is not merely achieved by assessing the social structure of the practice, but involves interns' personal interests and estimation of the meaning they derive from the experience. As Wright and Middendorf (2008) suggest, structure and human agency are inextricably linked. An account of a farm's intern's reasons for pursuing a farm internship and the perceived benefits of the experience are important to understanding the value of the farm internship within the structural constraints of the practice. Weber's theorization of two forms of modern rationality is a conceptual tool used in this thesis to explore the personal experience of the social organization of farm internships. Rationality as a theoretical component helps explicate the meaning that farm interns ascribe to their experience that justifies the practice and perpetuates the farm interns as a good practice on farms.

Formal rationality, according to Weber, is a calculation of the best means to the end and is adopted by modern society as the only mode of operating reasonably (Slater and Tonkiss 2001). Capitalists regard motivations and behavior that are oriented to values other than capitalistic efficiency as primitive. Weber observed that the emphasis on calculability creates a scenario where all factors involved in the production process are considered means to ends. This includes workers, who Weber asserts should be treated as subjects not objects in the modern

world (Mooney 1988). However, implementing formal rationality in the labor process causes a separation of workers from ownership of the means of production, an observation that resembles Marx's theory of alienation. Workers become dependent on the labor market for their livelihood and powerless to control the production process within which their labor is used. Economic efficiencies and outputs are achieved concurrent to increasing the alienation and powerlessness of workers (Slater and Tonkiss 2001). According to Weber, the sole emphasis on calculation of costs and outputs ultimately leaves individuals with less and less meaning and freedom in their lives.

The second type of rationality proposed by Weber is substantive rationality, whereby the ends of actions and ultimate values that reinforce commitments guide individuals' actions to achieve their goals (Mooney 1988). The world created under formal rationality is impersonal and ascribe value only in the material, whereas substantive rationality is based on the value orientation of individuals and leads the modern individual to experience the world as inherently meaningful (Slater and Tonkiss 2001). Weber did not explicate the specific value systems that distinguish substantive and formal rationality, but referred to the former in the context of traditional and religious traditions (Mooney 1988).

Rothschild-Whitt (1979) suggests that formal and substantive rationalities are in a continual state of tension. For the modern person who ascribes to the essential tenets of capital rationalization, this type of thinking and subsequent behavior is irrational with respect to achieving core social values of the modern world. Mooney (1988) argues that though formal rationality is central to the existential dilemma of modern individuals, agriculture is a site where capitalist development is not one dimensional and therefore, agriculture more than other sectors, provides opportunity for people to apply substantive rationality. Similarly, Bonanno (1987) found that farmers enlisted non-monetary values to justify their decision to remain in agriculture. These farmers valued the freedom and independence they experienced in farming, and persisted despite poor economic conditions. In a recent study of Community Supported Agriculture farms located

in California's Central Valley, Galt (2013) concluded that farmers' motivations were an important factor in explaining variations in their earning power. In direct contrast to capitalist rationality, the study found that farmers were motivated by community and environmental commitments that often superseded more instrumental reasoning directed at achieving profits and economic efficiencies. Nevertheless, decisions that farmers made which were motivated by values other than capital gains were constrained by the economic viability of their farms in the food system. This confirms the observation made by Mooney (*ibid*) who suggested that though farmers employ alternative rationalities to make decisions, structural factors such as markets and social classes act to "constrain or shelter the reproduction of substantive rationality" (Mooney 1998: 62).

The reasons farm interns participate in an internship are explored by examining the motivations and benefits that these women and men ascribe to their experiences on sustainable farms. The study asks whether farm internships offer participants an opportunity to achieve core values, and how their participation is driven by a search for personal meaning in a modern world oriented to costs and outputs. These inquiries expand the understanding of farm internships to include the personal perspectives of farm interns as fundamental to what constitutes the practice.

2.4 Historical and Contemporary Perspective on Farm Internships

The practice of training people while they perform work with a knowledgeable practitioner is not new. However, the apprenticeship model is less common in the US than in Europe where the formal iteration of the practice originates. The popularity of farm internships particular to sustainable agriculture has grown in the last twenty years, but has little historical context. What is known about farm internships comes from organizations that serve farmers who host interns. A discussion about the historic roots of vocational learning and labor programs in the informal

sector that provides comparative models to the modern farm internship follows. Current literature from sustainable agricultural organizations outlining the common tenants of farm internships in the US is presented next. The last section is organized into labor, learning and personal relationships as the three primary social exchanges that structure farm internships, which will be a framework for analysis moving through the remainder of the thesis.

2.4.1 Historical Overview of Apprenticeships

In colonial America, the apprenticeship model served as a system of education and job training by which practical information was passed down through generations; it was a mechanism by which “youths could model themselves on socially approved adults” (Rorabaugh 1986: 14) who could guide the moral development of trainees through the relationship of mentor and learner. The development of the US apprenticeship tradition diverged from the structure and formal oversight of apprentice training provided by European medieval guilds. Statutes regulating apprenticeship were enforced through merchant and craft guilds that controlled admission to apprenticeships. Moreover, guilds monitored the quality of education apprentices received and evaluated the caliber of their work. In numerous trades, it was commonly prohibited to practice without an apprenticeship. Rorabaugh (*ibid*) attributes the regulation and certification powers of guilds overseeing apprenticeships in creating a competitive labor market that kept wages high for tradesmen. But tradesmen did not establish guilds in America, and consequently a regulatory system never became organized to oversee apprenticeship training, apart from a federal registry program requiring an employer to disclose whether they had an apprentice. This system allowed anyone to claim being a master artisan and take an apprentice without an occupational institution to ensure that an apprentice was trained well (Elbaum 1989). As Elbaum (*ibid*) notes in his review of the decline of apprenticeships in the US and their survival in Great Britain, American

firms that hired apprentices in the early 20th century did so in collaboration with trade unions. The combined programs relied on collective regulations that were reinforced by the trade unions, such as building union trades, which made completion of an apprenticeship means for gaining access to the national union. Nevertheless, these collaborations were rare and the lack of formal standards, oversight and investments in vocational training programs minimized the investment that trade unions made to encourage workers to complete apprenticeships.

The merits of informal apprenticeships are not without serious historical critique based on recorded injustices of the practice. Long working hours, unsafe working conditions, low or no allowances to wages, little or no social protection in case of illness or accident, and strong gender imbalances are cited as having been pervasive in common apprenticeships (Rorabaugh 1986). An apprenticeship during medieval Europe and pre-Industrial America was considered a male institution that excluded women from learning crafts and trade professions. In reviewing historical records, Rorabaugh (1986) failed to uncover a single female craft apprentice in the US. In colonial America, apprentices were assigned to the lowest socioeconomic class that included slaves, indentured servants, hired servants and unskilled labor, “These workers were paid either in kind, receiving only clothes, room, and board, or such low wages that combined with the sporadic nature of unskilled labor, they always hovered on the edge of poverty” (*ibid*:12).

2.4.2 Modern Farm Internships

There are no sociological studies or academic documentation of the development and ascent in popularity of the farm internship in sustainable agriculture. The New England Small Farms Institute suggests in their manual about farm internships that the back to the land movement of the 1970s was the impetus of farm internships in the United States (Smith 2005). New farmers with little experience were amenable to teaching others what they knew in exchange for help with

intensive labor tasks required of operating a small-scale, non-chemical operation. In reviewing guides and reports about on-farm mentoring programs (Jones 1999; Smith 2005; Powell 2007; Mills-Nova 2011; Barnett 2012) three basic tenants of internships on sustainable farms emerged: 1) farm labor - the work of interns and that which is provided in exchange as compensation; 2) farm training - what and how interns learn on farms; and 3) the centrality of interpersonal relationships to the practice. The social organization within these three exchanges during a farm internship is both telling of how internships are structured, conducted and the outcomes of these exchanges that make the practice meaningful for participants. The next section will review each type of social exchange as a means of organizing the sustainable farm internship.

Labor Exchange: Working on Farms

Farm internships are an experiential form of training that Jones (1999) calls learning by osmosis. Farm internships provide agricultural training based on a learner's full participation as a laborer. Farm interns are expected to be reliable laborers during key times of the growing season on farms. The farmer or farm manager determines a farm intern's work schedule including the number of work hours and days, and the number of breaks afforded to the intern. Time-off during the season is also variable according to the production needs of farm, the time the farm intern is willing to commit to the farm and the number of other workers on the farm, to name several factors cited in sustainable agricultural literature (Jones 1999; Powell 2007). Unlike traditional employees that are given specific tasks to perform repetitively to increase the efficiency of production, interns expect to be exposed to a variety of labor tasks to learn the various components of agricultural production (Jones 1999; Smith 2005).

In exchange for their labor, farm interns typically receive a small living stipend, room and board on the farm (this is more often the case in rural areas), and access to the food grown on

the farm. Farm education is also a key reward promised interns for their work. Social justice standards developed for sustainable farms propose that an intern sign a contract that delineates the intern's working conditions, methods of labor evaluation, disciplinary procedures, stipend to be provided by the farmer, housing to be provided, and the farmer's expectations for working hours and type of labor expected of the intern (Henderson et al. 2008).

Current efforts have been made in the non-profit sector focused on small and alternative agriculture to inform farmers about the legal distinction between interns and employees (NESFI 2008; Witmer 2013). Guides for farmers emphasize that federal regulations require farm internships focus on providing participants vocational training through structured instruction that accompanies the labor performed by interns. This literature conveys that although education, room and board are legitimate forms of remuneration, interns are technically employees when the services they provide for such compensation contributes to the farm's profitability (NESFI 2008). The work that farm interns perform may legally qualify them as employees despite their willingness to regard themselves as students and accept little or no pay as compensation for their labor. Therefore, farms that rely on interns to meet labor demands violate federal labor laws when interns are not paid minimum wage and the training component of the internship is substituted for continuous labor.

Apprentices and interns are both terms used to describe practices that offer teaching and alternative remuneration in lieu of monetary compensation for work performed on farms. The International Labor Organization (ILO 2012) recognizes the following aspects as essential to apprenticeships: that they are based in the workplace and supervised by an employer; that they are intended for young people; their fundamental aim is learning a trade, acquiring skills; training is systematic and follows a predefined plan; and the arrangement is governed by a contract between apprentice and employer. Criteria put forth by the US Department of Labor to describe a legal internship versus employment are nearly identical to the ILO's definition above. Employers

in the US are required to register an apprenticeship program and complete an approval process with the appropriate federal regulatory agencies to call a program a formal apprenticeship.

Ambiguity is obviously rampant on this topic, making internships and apprenticeships on farms hard to distinguish if not registered with the DOL. Due to the informal definitions applied to interns and apprentices within the sustainable agriculture movement and the lack of federal oversight of on-farm internships and apprenticeships included in this research, this thesis will refer to those who work on farms for an education simply as “intern.”

Learning Exchange: Training on Sustainable Farms

The on-farm, informal model of training a new generation of farmers is a reflection of the grassroots support of the alternative food system (Barnett 2012). The farm internship as an educational and training framework intends not only to increase the number of trained farmers in sustainable agriculture, but provides interns a path to farm ownership through preparation in farm production and operations (Powell 2007). The inherent conjunction between work and education is elemental to how internship programs are described in sustainable agricultural and occupational literature (Jones 1999; Mills-Nova 2011; Smith 2005). The farm is conceived as the ideal environment to instruct new farmers and requisite for making agricultural training practical for women and men who will transition from workers to farm owners. By working alongside farmers or other workers, interns are taught how to endure the challenge of performing manual labor for many hours, instructed on the safe operation of tools and equipment and imparted with farming knowledge and skills that relate to food production (Smith 2005). The New England Small Farm Institute suggests that on-farm learning requires that interns are introduced to information that is reinforced through learning activities, supervised practice and a feedback from a supervisor (*ibid*). The success of on-farm mentorship is therefore influenced by the relationship between the

intern and the farmer. Internships are built around the idea that “farmers are the best teachers for farmers” (*ibid*: 17), making the on-farm program a rich learning environment and requiring a level of commitment from the farmer to teach not just supervise work.

Farm internships can be either formal or informal in design with the shared aim to train interested persons in sustainable practices. Formal programs that train new farmers in sustainable agricultural production in the US are often associated with colleges and nonprofits (Carey et al. 2006). Stand-alone programs such as the Seed Farm (Emmaus, Pennsylvania) offers participants training and educational credits that includes both classroom and field instruction. Participants in these programs do not have to be an enrolled student in a college, university or governmental program. These programs do require participants to pay tuition fees and apply to the program in advance of the growing season (*ibid*). In Pennsylvania, several colleges and universities also offer students the opportunity to work on a farm in exchange for instruction on sustainable agricultural production. Such programs are either student-led or overseen by a farm manager and supporting staff. The latter is the case at Dickinson College in Carlisle, Pennsylvania. Enrolled undergraduates have the opportunity to apprentice on the school’s fifty acre farm for six months, or work part-time as a student farm worker during the school year and summer break (Dickinson College Organic Farm website 2012). Students in this program gain practical skills through on-farm mentorship from a farm manager and have opportunity to attend classes and workshops to supplement their experience with instruction provided during the labor process.

Informal farm internships are much more common than the two types described above. This type of on-farm internship is arranged between a farmer and individuals seeking on-farm training. Depending on the farmer’s investment in time and effort, the farm internship comprises in-the-field instruction supplemented by informal group discussions on agricultural topics and potentially off-farm events such as field days and workshops. There is no standard organizational framework for hosting a farm intern regarding the amount of time spent in educational

instruction. The majority of farm internships are informal, as there are more farms looking for seasonal labor than institutions and organizations that manage sustainable farms (Powell 2007).

Training in a farm internship does not always lead interns to pursue farming as a vocation but may be informative to other jobs in sectors related to food and agricultural policy, environmental stewardship and community development. Jones (1999:3) writes for farmers considering hosting internships that:

Many internship applicants are not considering farming as a possible career. They are looking for a farm experience where they can learn to grow their own food. Some want to learn about environmentally responsible food growing and rural living, to enhance what they will have to offer as a teacher, community organizer, health care practitioner, Peace Corps Volunteer etc.

Unlike traditional employer-employee arrangements in agriculture, farmers in both formal and informal farm internships assume a much greater obligation to instruct. This includes providing farm interns a diversified learning experience through mentorship on many different tasks, as well as through frequent discussion of the overall goals, methods, and systems of the farm (Smith 2005; Mills-Nova 2001).

Relationship Exchange: Interpersonal Relations During Farm Internships

Farmers who host interns play multiple roles that include trainer, educator, manager and mentor. Farmers are expected to provide the necessary skills for interns to be successful farmers and interns are expected to be diligent and motivated students (Jones 1999). Farmers often try to maximize their interactions with interns during field time to provide mentoring in addition to supervision. Jones (*ibid*) contends that one reason why few successful internship arrangements happen on large farms is that farmers cannot give the intern the necessary attention during the labor process. The commitment to mentoring is partly explained by a farmer's motivations for

hosting interns. If a farmer's intent is to primarily support and train new farmers rather than obtain cheap labor, a farmer is likely to be more willing to break the flow of production and teach an intern something new. Guides for farmers about hosting successful internships encourage farmers to cultivate personal behaviors and characteristics that are important to good teaching and coaching. Providing instruction and explanation to interns while they labor as interns is fundamental to the internship, and facilitated by interpersonal relationships between the farmer and farm intern.

Farm interns also expect to interact socially with farmers. When a person commits to staying for more than the primary months of the growing season, a farm intern "becomes an integral part of the mentor's farm team, and often the farm family" (NESFI 2006). Interns who are students and work during summer breaks, or individuals wanting to be trained on specific skills may stay less time on the host farm and therefore become less integrated and committed to the long term well-being of the farm system (*ibid*). Smith (2005) explains this dynamic in "The On-Farm Mentor Guide, "The constant togetherness of farmer and trainees in combination with the real dependence they have on one another each lend to an excellent learning situation, or in the worst cases, an impossible one" (46).

The farmer-intern arrangement is built on fundamental qualities of relationships. Farm interns will feel more or less supported based on the degree of trust and commitment that is developed with the farmer. Farmer manuals that instruct farmers on positive mentorship contend that trust and respect between farmer and intern strengthens an intern's efforts to learn and work and his or her willingness to "make the needs of the farm their own." (Smith 2005: 46). The importance of interpersonal relationships for the organization of farm internships was confirmed in the Northeast Willing Workers On Organic Farmers (NEWOOF) 2004 Annual Survey where sixty seven percent of farmers listed "handling interpersonal issues" as among the biggest challenges in hosting interns.

Relationships cultivated during farm internships inherently include other interns and members of the farm crew. Interpersonal dynamics among farm interns is particularly important when interns share living space and are socially dependent on the farm crew if isolated based on the geographic location of the farm. These relationships can be life-long and formative, or explosive and contentious based on personalities, guidance from the farmer and conditions on the farms that invite stress or promote social bonding (Smith 2005). Interns will also likely interact with people who do not work on the farm including other farmers in the community and eaters who purchase the farm's food. Farmers can play an important role in helping interns find future employment in agriculture by linking them to other farms and facilitating introductions to other farmers (Mills-Nova 2011).

2.5 Research Questions

The question of how sustainable farms sustain interns and how interns sustain sustainable agriculture is central to the experiences of women and men who participate in farm internships. This question also has repercussions for the viability of sustainable farms and the future of food production for alternative food systems in the US. The focus of this research proceeds from these concerns. This thesis explores how farm internships are structured and the meanings sought and experienced by persons who participate as interns. The central questions this thesis addresses are: 1) What are the social exchanges that structure a farm internship? and 2) What are the motives and benefits that influence a person's participation and assessment of a farm internship?

There are no regulatory agencies or federal standards that dictate the nature and outcomes of farm internships. Therefore, the social organization of farms is a primary factor for what constitutes on-farm internships. Based on contemporary literature for farmers about farm

internships and historic accounts of vocational apprenticeships in the US and Europe, three exchanges are expected to be primary to internships on sustainable farms. These exchanges are: 1) an intern exchanges labor for basic remuneration and learning, 2) a farmer trades her knowledge and farm's resources for the intern's labor, and 3) the social exchange between interns, farmers and others in the farm's community. These exchanges reveal the unique position that farm interns occupy in the labor process on sustainable farms. The nature of the learning exchange alludes to the dearth of formal and accessible programs that teach inexperienced people how to grow food using sustainable agricultural methods. The personal relationships convey the importance of the social context for facilitating farm internships.

A second research question investigates the reasons that interns choose to become a farm intern and how these reasons lead them to assess the merits of their internship on sustainable farms. This question asks: what are the motivations of people who participate in farm internships and what are the perceived benefits of an internship? Farm internships are widely understood to be an opportunity to learn on the job without the return of a wage for a person's labor. If not capital, what other reasons aside from promised remuneration motivates farm interns' participation in sustainable farming? The meaning and significance of the farm intern experience aims to explicate the value of farm internships from the intern perspective.

Conclusion

A political economy approach is well suited to the study of the social structure of farm internships and the Weberian theory of formal and substantive rationalities to the meaning and value assigned farm internships by farm interns. The conceptual framework of this thesis uses an agricultural political economy approach to describe the social organization of farm internships. Within the structure imposed by the labor, learning and social exchanges of the practice, farm interns make

their own choice to participate and justify this choice using the perceived benefits derived from the experience. An analysis of in-depth interviews with farm interns, farm journals kept by farm interns on their daily tasks and reflections on their work, and a web-based survey that gathered information on the work, remuneration and education farm interns received during their internships on farms in the Northeastern Region of the US will elucidate the social exchanges that organize the farm internship and the personal experiences of those who participate. Data collected from focus groups will be included in the final analysis to assess best practices across the findings of this study.

A review of the literature explored the history of vocational training programs and the three primary social exchanges within the modern day farm internship as described by sustainable agricultural organizations. The conceptual framework presented in this chapter will guide the analysis of the study's data in Chapter 4 based on the methodological approach described in the chapter following this one.

Chapter 3

Methodology and Methods

A mixed methods approach to this inquiry provides insight into the meaning of the farm internship as a labor process and training opportunity on small farms in Pennsylvania and the Northeast region. How people with an interest in growing food who have little training or resources learn to farm, the meaning of this experience for farm interns within the structures of sustainable farming, and the effect on the social sustainability of internships on the alternative food system inform the research questions. Consequently, this study was conducted using a combination of phenomenological and feminist methodologies appropriate to exploring the experience and structure of farm internships in sustainable agriculture (Creswell 2013). The four instruments used to collect data, guided by the methodologies above, provided mechanisms to understand how people make sense of a major life experience (Smith et al. 2009) within the structural forces that influence their actions (Wright and Middendorf 2008). Farm internship experiences were explored for constituent characteristics occurring in different times and places, taken together to denote patterns of shared meaning and agency for interns working in sustainable agriculture. Farm internships are particularly suited to a bricolage approach to research as the phenomenon represents a significantly complex and variable experience for many of the participants that must be examined from differing perspectives. Importantly, farm internships have not been studied previously, which influenced the election of a methodological approach appropriate to exploratory research.

This study was guided by two interrelated methodologies and apposite methods to understanding the meaning ascribed to interns experiences and the structure of internships that influence actors engaged in this form of labor and learning on sustainable farms. These are

interpretative phenomenological analysis (IPA) and feminist methodologies. Accordingly, research methods (instruments) were designed to stimulate and capture interns' reflections on the internship experience.

In this chapter, I describe the methodology that informed the research design and the methods employed at each stage during the research process including instrument design, data gathering and data analysis.

3.1 Research Approach

3.1.1 Interpretative Phenomenological Analysis

The philosophical traditions of phenomenology and symbolic interactionism provide the foundation for the methodological and analytical tenets of interpretative phenomenological analysis (IPA) used in this research. From these philosophical roots IPA holds that human beings are not passive perceivers of an objective reality. Rather, human beings interpret and understand the world by molding their personal stories into a form that makes sense to them (Brocki and Wearden 2005). Phenomenological approaches illuminate “what” individuals experience and “how” they experience it (Moustakas 1994 cited in Creswell 2013). The research questions that drive this study examine the social structure of internships and how the experience of internships relate to intern's interpretation of his or her role in growing sustainable food. The use of IPA as a methodological framework guides the collection and analysis of intern's experiences in the context of his or her own life and as a social actor constrained by structures created by the farm internship.

3.1.2 Feminist Perspective

The concepts of sustainability and social exploitation are central to the history of farm work and this topic. The research presented is therefore informed by a feminist methodology that seeks transformative outcomes of the research process (Naples 2003). This inquiry of farm internships specifically explores the internship as a just practice within sustainable agriculture. Feminist methodologies aim to enable the researcher and participant to challenge oppressive aspects of society where people are marginalized from spaces of knowledge and places of power (Moss 2002). This study also uses a feminist research perspective to highlight the intersections of the individual and the labor process that point to important interactions between individuals and societies that shape barriers and opportunities in sustainable agriculture.

3.2 Methods

The strategy for using qualitative and quantitative data aimed to garner insight into internship experiences and programs nested at different levels and aspects of the phenomena (Creswell 2003: 16). Each “layer” in the research process treats the interns experience as embedded in social, economic and environmental relationships. The design of this concurrent mixed-methods approach entailed collecting qualitative and quantitative data simultaneously, and analyzing and interpreting the results at the same time during the study.

The research design of this study utilized a websurvey, in-depth interviews, farm journals and informal focus groups that sought to capture multiple perspectives and the complexities of the internship experience on sustainable farms in Pennsylvania and the greater Northeast region. This research orientation followed the bricolage method of data collection to provide a multidimensional perspective of social phenomena (Foster 1997; Dicks and Mason 1998).

Originally theorized by Claude Levi-Strauss in his book “The Savage Mind” (1966), more recent scholars characterize the researcher as a bricoleur or Jack- (in this case Jill) of-all-trades who uses the epistemological, theoretical, methodological and material tools available to her in order to weave a complex text that is informed by personal history, and the context of those in the study (Denzin and Lincoln 2011). The nature of knowledge exposed by this research approach is recognized not as objective or disciplined, but grounded in multiple dimensions, interpretations and representations of the phenomenon as lived by the research participants (Kincheloe 2001). Scholarly critics of bricolage contend that by attempting to know so much, a researcher can only provide a superficial analysis of an issue that lacks disciplinary rigor and offers incomplete knowledge (McLeod 2000). Kincheloe (*ibid*) and Denzin and Lincoln (*ibid*) rejoin that adherence to structured disciplinary approaches do not eradicate the limits of objective science nor result in infallible universal knowledge. The bricolage methodology is simply transparent in assessing and reporting the inherent variation of elements encountered in the research act.

Qualitative research is premised on the epistemological assumption that knowledge is known through a person’s subjective experience. Accordingly, qualitative methods attempt to reduce the social space between the person collecting information and the research participant (Creswell 2013). The aim of qualitative data collection is not to aggregate numbers, but to inquire into social and human problems as they occur in natural settings. Qualitative methodologies were used in this research to present a holistic frame of farm internships that embraced the social complexity, processes and outcomes and the diversity of perspectives embedded in the internship context (*ibid*). The quantitative section of the research method was used to provide perspective on a larger population of farm interns and weave together themes explored in the qualitative data. Quantitative data collected from a survey and journal instrument were intended to be descriptive of the farm internship structure, and interpreted descriptively with themes from the qualitative data (Creswell et al. 2008)

Feminist methodologies were instructive in planning and executing the research approach in three key areas: 1) establishing non-exploitive relationships that were accountable to the needs and ideas of interns on exploring this topic; 2) situating the research in the context of people's lives to avoid objectification; and 3) aiming the process and the research outcomes to problematize how power relationships and individual's social positions impact vulnerable populations (Creswell 2013).

To answer the questions under investigation, qualitative data was collected through individual, in-depth interviews, small-group discussions and reflective farm journals, and quantitative data using an online survey. To examine the role of interns on sustainable farms and within alternative food systems in Pennsylvania and the Northeast, the research focused on persons who labored on sustainable farms between 2009 and 2012. There was no time frame that restricted participation for the online survey. Participants were not required to be working on a farm at the time of the study. None of the participants in the qualitative phase of the research had transitioned to farm operators, but this was not the case for the online survey sample.

This research is based on fieldwork conducted in the sustainable agricultural community of Pennsylvania and the Northeastern US. Several conceptual and logistical advantages informed the decision to limit the study geographically to Pennsylvania and contextualized in the Northeastern region. Pennsylvania is one of the most agriculturally productive states in the US (USDA 2007) and has a rural population higher than the national average (US Census 2010). Numerous organizations have actively organized within the sustainable farming community in both geographical areas, evidence of public interest and support for alternative farm practices. Moreover, the research design is cost and time effective, utilizing resources available through personal and professional contacts the principal researcher developed while earning a graduate degree at the Pennsylvania State University. Living and working on farms located in Pennsylvania provided access to farming organizations and networks throughout the state and

familiarized the researcher with regional food systems, agricultural extension offices and local food groups in the study area.

3.2.1 Situating the Study

Farming is a unique occupation owing to natural cycles and social arrangements not present in other forms of employment. The seasonal growth cycles of plants and animals determines the timing, type and often location of internships on farms. The type of education and quality of the intern experience can partly be attributed to the seasonality of farm work, the sequence of farm-specific tasks and activities that occur within these cycles, and the rural context of where farms are located. The prominence of agriculture in Pennsylvania provides an appropriate setting to study farm internships. Nearly a quarter of land in Pennsylvania is dedicated to agricultural activities and the state ranks in the top 10 of production volume for 17 different primary crops (USDA 2007).

Agriculture is still an important source of employment in Pennsylvania. More than a quarter of Pennsylvania residents lived in rural areas in 2010 (US Census Bureau) and made their living primarily in manufacturing and natural resource-based industries that includes farming (Alter et al. 2007). In 2007, there were nearly twenty-three thousand farm operators in Pennsylvania whose primary occupation was farming, and an additional 34,000 farm operators who listed a different primary occupation (USDA 2007). Estimates of migrant and seasonal farm worker population fall between forty-five thousand to fifty thousand people employed on farms in the state in the year 2000 (cited in Cason et al. 2004).

The lack of accurate data on the number of sustainable farms and workers on these farms is a deterrent for accurately describing the context of this study and the population. Exact numbers of sustainable farms and who works on these farms are unknown because there is no

consensus on the definition of sustainable and thus, these data have yet to be systematically collected. The Pennsylvania Association of Sustainable Agriculture (PASA) is an organization of over three thousand members, indicating a high level of interest in sustainable agriculture in the state. Though certified organic agricultural production does not equate to sustainable agriculture, all of the farms that interns described as sustainable in this study adopted organic growing practices. In 2011, there were four hundred and twenty certified organic operations in Pennsylvania, a nearly twenty six percent increase from 2006 (ERS 2011). However, not all organic farms are certified and the term should not be conflated either with simply commodity production or sustainable agricultural production. Local Harvest, a nationwide directory of local and organic producers, listed eight hundred and seventy local and organic farms in Pennsylvania at the time of the study (Local Harvest accessed 12/10/12).

The larger Northeast region in the US was included in the survey phase of the study due to the prominence of agriculture in the region, particularly farms selling directly to consumers and higher number of organic sales compared to other regions in the US. The region was made up of states served by Northeast Sustainable Agriculture Research and Education (NE SARE). The sustainable food movement has focused on localizing food systems, prioritizing creating markets for farmers and shortening the distance between farmers and consumers (Allen 2004). Direct market sales is one means to assess the presence of the viability that sustainable farms have in particular states and regions. According to 2007 Census of Agriculture Data, Pennsylvania ranked fourteenth in the nation on average direct market sales per farm; seven states included in the survey region ranked higher than Pennsylvania, ranging from Connecticut that had the highest per farm sales in the country (\$27, 072) to Maine that ranked twelfth in the US (\$10,803). Less than two percent of Pennsylvania's agricultural market sales come from direct market sales, placing it thirteenth in the US. Eight of the states in the Northeast region ranked higher than Pennsylvania including New Hampshire and Connecticut that ranked one and two respectively in this category.

Eight of the states in the survey region also had higher organic sales as a percent of all agricultural market sales than the national average, including Pennsylvania, New York and Massachusetts where the majority of survey respondents reported they worked as interns on sustainable farms (cited in Merrill 2012). The majority of respondents to the survey worked on farms in New York, Pennsylvania and Massachusetts (Table 3-1). These results might reflect the convenient sampling measure used to disseminate the survey and the number of farm internships in these three states.

Table 3-1: Northeast state where survey respondents completed a farm internship

Location of farm internship, US Northeast Region, 2012-2013		
Location of internship	Number of cases	Percentage of sample¹
Connecticut	5	3.8
Delaware	0	0.0
Maine	7	5.3
Maryland	5	3.8
Massachusetts	20	15.2
New Hampshire	5	3.8
New Jersey	3	2.3
New York	50	37.9
Pennsylvania	43	32.6
Rhode Island	1	.8
Vermont	8	6.1
Washington D.C.	2	1.5
West Virginia	1	.8

N= 132 respondents

¹Percentage does not add to 100 since respondents were given option to choose more than one state

3.2.2 Research Sampling Framework

A purposive sampling technique guided the selection of interns for interviews and time-use diaries. A convenience sampling technique drew from volunteers that met criteria detailed in later sections to participate in the survey and small-group discussions. This sampling design aimed to offer contrasting views of internships from people who could provide detailed information about the research problems from a range of experiences (Merriam 2002). It is the subtlety of variation where the story on farm interns lies. Characteristics of internship programs that offered diversity to participants' stories included the farm location, type, and marketing scheme. Sample selection focused on vegetable and fruit growers, and to a lesser extent, meat operators. The seasonality of labor needs poses particular challenges for farms growing products during a limited time of the year. Different farm styles determine not only the type of products grown and therefore labor needs, but also the growing methods and resources made available to interns during their experience. Based on personal experience the researcher sought to include interns who worked on the following types of farms: 1) Community Supported Agriculture farms with a local-consumer base; 2) student farms operated by a college or university; 3) sustainable farms with a large intern work force (more than 4 interns); 4) farms in an urban area; and 5) farms with formal training program and structured curriculum.

3.2.3 Online Survey

Sampling Technique

The web survey was designed for exploratory purposes with no attempt to examine a random sample of the population of farm interns. Instead, the sampling technique sought to include individuals who were knowledgeable about internships based on personal experience. Unique

characteristics of interns (rural, isolated, transitory, and socially mobile) and the dearth of organized institutions serving interns proved prohibitive to creating a sampling frame representative of the study population (Dillman 2007). Findings of the survey were therefore collected using a diffuse sample procedure that is appropriate to both exploratory and multimethod approaches to research (Sue and Ritter 2012: 11). The intention of conducting an online survey was not to make inferences about the general farm intern population nor reach conclusions with statistical precision applied more broadly about internship programs. Alternatively, the online survey format provided a low cost option, which could have wide geographic reach within the dispersed farm intern population.

Participant Recruitment

Survey participants were initially recruited through farms soliciting interns during the 2012 growing season. A list of 106 sustainable farms seeking interns in Pennsylvania was created from the National Sustainable Agriculture Information Service Sustainable Farming Internships and Apprenticeships website (ATTRA accessed June 2012). Individual emails were sent to each farm on the list on August 27, 2012. A standardized message introduced the study and petitioned farmers to distribute a standard recruitment letter to interns currently working, or who had worked, on the farm since the 2009 growing season. The email message included a link to the online survey; embedded in the survey was a question that sought the participation of interns who worked in Pennsylvania for an in-depth interview or small-group discussion. Included in the recruitment letter sent to farmers was contact information for the research team. The recruitment letter was electronically circulated by two Pennsylvania agricultural organizations on August 21, 2012. The Pennsylvania Association for Sustainable Agriculture (PASA) posted the letter on their online blog where it remained a feature article until the following day. The blog post was also

distributed through PASA's 4 regional listservs the same day that it appeared on the organization's website. The Pennsylvania Women's Agricultural Network (PA-WAgN) distributed the standardized recruitment letter by email to their network of 1,500 members, in addition to posting it on a social networking site (Facebook).

Without a defined population or a pre-existing list of formal organizations that reach interns, the sample draw necessitated extensive and diffuse circulation of the survey to solicit responses (Dillman 2007). Therefore, the research team conducted two rounds of follow-up phone calls to every person on the Pennsylvania ATTRA email list. The first round was conducted over a two-week period at the beginning of September and the second round of phone calls was conducted over the same period of time in late November. The research team developed an outreach strategy for these calls that included optimal times to reach farmers, a speaking script and prioritized particular farms based on farm characteristics that were underrepresented in the interview sample. Farmers who received an email or phone call from the researcher were not asked to report whether they sent the web survey link to interns nor account for the number of people who they potentially reached. None of the participants in interviews, farm journals or small-group discussions reported being referred to the research study by a farmer contacted by the research team.

The survey was distributed throughout the Northeast region beginning on October 23, 2012. To reach the highest possible number of farm interns in the Northeast, and to have a broad regional distribution, the survey was sent to the Community Foods Listserv hosted by Tufts University, and provided to regional chapters of the North East Organic Farming Association in November 2012. None of these organizations offered the researcher access to the list of their members; instead, they solicited participation of their members on behalf of the research team. Staff agreed to send out the survey link through listservs or posting the link on Facebook. However, these chapters did not promote the survey through their public communication

channels. To the researcher's knowledge, the only regional organizations that sent the survey link through its network were two new and beginner farmer programs in New York state: Stone Barns Apprentice Program and Cornell's Small Farm Program. This form of snowball sampling (or a referral chain) is critiqued for sample bias, which is discussed in the following section. Finally, the principal researcher included the survey link in email correspondence as a signature tag as a diffusion mechanism through personal and professional networks.

Data Collection

In creating the survey, farm managers who supervised interns, former farm interns and rural sociologists familiar with quantitative methodology reviewed the survey questionnaire. Ten former interns completed a pre-test of the survey; the researcher incorporated their comments and feedback into the final survey. The goal of the survey was to describe characteristics of interns, the education and skill training received during the experience and social sustainability of alternative food systems in Pennsylvania and the Northeast region as it relates to labor practices for farm interns. The survey design was built around four key areas: (1) farm intern demographics; (2) education and skill training; (3) on-farm work and compensation arrangement; and (4) motivations and personal experiences during the internship.

The target respondents were assumed to have internet access based on the availability of farm internship databases on the web. It was assumed that most of the potential respondents were young, college-educated persons who were internet savvy. Nonetheless, the decision to conduct an online survey was made without information on how many farm interns use web-based sources to find farm internships, nor were potential respondents known to have email or internet access. The exclusive use of online databases, organizational blogs, websites, social media and listservs introduces concerns related to the integrity of our sample resulting in significant coverage error

considering the mechanisms of dissemination (Sue and Ritter 2012). Farm interns who do not use the internet or did not have internet during the data collection phase of this survey were categorically excluded from the survey. No attempts were made to make this survey available in paper form. The advantage to this approach was the ability to broaden the audience of the survey and potential contact points for reaching interns. Treating interns as a hidden population with particular sensitivity to the repercussions of the close social networks among sustainable farms in Pennsylvania and the northeast, a websurvey afforded participants the ability to respond more freely with protection of greater anonymity (*ibid*).

The survey appeared as a self-administered questionnaire hosted by SurveyMonkey. To achieve a higher response rate without having direct access to lists of interns, we chose to keep the digital survey open for an extended period of time as recommended by Sue and Ritter (2012). We opened the survey process on August 21, 2012, and closed the survey on March 15, 2013. During that time we received distinct responses from 154 respondents of which 132 were determined valid according to the sampling frame of the research study (i.e. participants had to be non-waged workers, on farms for at least three months from the years 2009-2012).

3.2.4 In-depth interviews

In-depth interviews were conducted to examine the lived experiences of farm interns on sustainable farms. Prior literature in the sustainable agricultural movement focuses on the farmer perspective. In-depth interviews were used to collect data that illuminated the complexity of experiences of farm interns as both laborer and learner.

Sampling Technique

Hendricks and Blanken (1992) argue that random sampling is not always viable in hidden populations that are unstable and difficult to locate. Farm interns fit the description of a hidden population based on their geographic isolation, transitory nature, marginalized social position in sustainable agriculture and difficulty finding these people due to the lack of standardized lists and data bases. Consequently, a theoretical sampling methodology guided the recruitment of interview participants. Both general and specific criteria were used to determine whether individuals met the study's definition of a farm intern while striving to include diverse perspectives. Potential interview participants were asked their length of stay on the farm, the average hours they worked per week, the compensation package provided for their labor, and whether they currently occupied a managerial or ownership position on the farm. These criteria were generated from practitioner manuals on farmer expectations for interns (Jones 1999; Smith 2005), and the researcher's personal experiences as an intern on a sustainable farm in Colorado.

The sampling criteria used to include participants in the interview stage sought to distinguish volunteers and employees from interns. Sustainable farming internships are predominantly characterized by the expectation that the intern will work as part of the farm crew in exchange for basic remuneration and training. Those individuals who stayed a minimum three months on the farm, worked for more than 20 hours weekly, who were not exclusively waged workers but received alternate or supplemental remuneration that included some expectation for training or education, and who had not transitioned to a farm owner since their internship were included in the study.

Participant Recruitment

Initial participant recruitment for in-depth interviews was implemented concurrently with recruitment strategy for the online survey. The recruitment letter sent to farms announcing the survey included instructions on how to contact the research team for interviews or focus group participation. A snowball methodology was used to overcome problems associated with sampling a concealed population (Faugier and Sargeant 1997). This approach was useful in obtaining respondents, considering interns are few in number, not organized through organizations or institutions, and some degree of trust is required to initiate contact. Sample bias issues associated with snowball sampling was considered but deemed acceptable considering the study's aim was not to generalize but collect information from knowledgeable persons on the issue. Extreme efforts were made to build a comprehensive list of contacts before selecting participants based on the sampling framework described previously. However, the hidden nature of farm interns directed the research team to interview all of those persons who met the sampling criteria during the six-month data collection phase of the study.

Contact from potential interviewees that resulted from recruitment efforts were followed by an email from the researcher asking for information related to the selection criteria. A list of potential participants was organized in an online excel spreadsheet managed by the researcher and research associates. In the case an individual met all three of the research criteria they were contacted by a second email or phone call to arrange an interview. Participants were given opportunity to determine the best place to be interviewed, but were asked to consider an off-farm location to prevent duress of reprimand by a farm supervisor for negative or critical responses. Interviews were also held away from farms to improve the trustworthiness of responses. In total, sixty-three people contacted the research team from July 2012 through March 2013. The research team communicated with all of these people to determine their eligibility for participation in

interviews. At the point recruitment efforts ceased the researcher had determined that sufficient data would be collected to answer the research questions. Three of the twenty-five interviews were conducted on a farm due to logistical circumstances of the interns, fifteen were conducted in person, and ten were held over the phone appropriate to the distance of the intern from the location of the researcher.

Data Collection

The researcher conducted twenty-five in-depth interviews with women and men who are working as farm interns in Pennsylvania, or who previously worked as an intern between 2009-2012. Both face-to-face and phone interviews elicited information from participants to collect multiple perspectives of sustainable farm internships. An interview guide with interview questions corresponding to five key concepts addressed the study's research questions (Appendix A). The guide began with a description of the survey and ended with a question that allowed participants to speak to issues or experiences not discussed in the interview. In preference to a pilot test of the interview guide, the interview questions were sent to a total sixteen farmers, interns and agricultural specialists in Oregon, Colorado and Pennsylvania for review. The feedback provided during this process was incorporated in the final interview guide.

In these interviews, interns were asked: 1) their motivations for working as an intern and apprentice on a sustainable farm; 2) to describe the training or skills derived from the experience; 3) to explain the remuneration during their internship and their quality of life while working on the farm; 4) whether their future participation in agriculture and/or food systems was impacted by their work as an intern or apprentice; and 5) to assess whether their experience on the farm met social sustainability standards. Participants were provided an informed consent form and informed that the purpose of the interview dealt with the reasons people choose to work as interns

and their experiences during the internship. Interviews were recorded with an audio device and transferred to a password protected electronic file. A professional transcribed twelve of the interviews, the remainder were transcribed by the researcher. Names and identifying farm information was left in the original transcript but later removed during the coding phase.

Following the interview, participants completed a written questionnaire soliciting descriptive aspects of the intern and internship including age, gender, educational level, assets, farm type, location and remuneration (Appendix B). These data are important in setting the context in which the interview data is embedded and the social and cultural resources available to participants to act within their circumstances.

3.2.5 Farm Journals

Time-use information collected in structured diaries has been shown to be more reliable than information derived from questionnaires (Bonke 2005). The advantage of a diary is that it collapses the time between when work is performed and reported, therefore capturing the structure of labor processes on small farms while reducing responder bias and problems with accurate reporting (Sonnetag 2001). The capacity to document a wider range of work tasks completed by specific workers is an additional advantage of using a diary as a research instrument (Bonke 2005). This is particularly important on sustainable farms where diversified farm systems demand many different types of work performed throughout the week. The time-use diary in this study intends to assess the types of work-related activities completed by interns on farms. The journals also provided a record of the people on farms that work with and mentor farm interns.

The time-use diary will be referred to as a “farm journal” and aimed to make transparent certain aspects of everyday life not immediately apparent in the other instruments. The lived

experience of farm interns recorded in the farm journals act as portraits of the conditions and events in which multiple and coexisting social roles are constituted (van Velsen 1964). Farm Journals allow for a more detailed understanding of the structural and organizational forms developed through the internship (*ibid*).

Sampling Technique

The primary sampling frame used to select interview participants was applied to select eight farm journal participants. Those who met these criteria were then chosen based on the farm location to provide equal representation in the four PASA regions and farm type (researcher sought to include a CSA, meat farm, student farm, and farms with both large and few number of interns).

Participant Recruitment

Farm journal participants were recruited through emails and web announcements related to the online survey recruitment phase of this study that commenced in July 2012. Five of the final eight participants were selected from this recruitment strategy. The remaining three participants were selected via personal contacts made at regional WAgN field days during the 2012 growing season. Only one of the farm journal participants was included in the interview phase of the research.

Data Collection

Farm journals were distributed to eight interns to illuminate the work context of internships in Pennsylvania. Each journal also included an open ended section soliciting information related to

the educational, emotional, social and psychological experiences of interns to situate the farm work reported in the interns own voices. Modifications to the typical time-use diary format were made specific to farm work to improve data collection that included 1) Using a lined notebook that allowed interns to bring the journal into the field as an alternative to printed spreadsheets typical in other labor studies; 2) Hand-written questionnaires on each page to encourage interns to treat the diary as a practical work log; and 3) Referring to the diary as a “Farm Journal” to capture the idea that the instrument was intended as a functional research tool and practical record for participants.

Journal participants were provided an introductory letter that outlined the objectives of the study and provided clear instructions for how to complete the journal (Appendix C). Included in the packet was a consent form that specified the confidentiality protections afforded to Journal participants if they chose to record their work and a standard “Composition Notebook” used as the research instrument. On top of each page of the farm journal were a series of categories for interns to self-report information pertaining to daily tasks. A “Reflection” page followed each day’s diary entries. The series of categories prompted interns to report: date of entry, start and end time they worked, number of total hours worked that day, farm tasks, location of the task and who the performed tasks with the outputs of those tasks. On the first page of each farm journal was a template entry with example tasks, locations, work companions, outcomes and reflection. The farm journal headings and templates were hand-written by the researcher and a research assistant. Slight variation in the farm journal template was an oversight of the researcher to standardize the examples provided, potentially compromising the reliability of the instruments if different templates influenced participants’ reporting. However, all examples focused on work appropriate to small-scale farms with a high degree of correspondence between the eight templates. Journal participants were instructed to record fourteen consecutive workdays in which they worked more than four hours with gaps for vacation or part-time days.

Of the eight participants initially recruited to participate in this phase of the study, six interns returned completed instruments. Two participants failed to complete the journal and therefore did not submit the instrument at the end of the study period. Farm journal participants who completed the instruments were provided one hundred dollars as compensation for their time and effort, made possible through a small grant from Northeast Sustainable Agriculture Research and Education (NE SARE).

3.2.6 Focus Groups

Focus groups were used to gather information on best practices of internship programs. The groups served two purposes. First, they served to connect interns who are typically isolated from other interns to share and compare experiences. Second, they were an opportunity to evaluate the correspondence and divergence among interns on the nature of successful internship programs. This method encouraged people to talk about the phenomena, revealing not only what interns thought about particular aspects of the experience but why they think that way based on a comparison of others' experiences (Kitzinger 1995).

Sampling Technique

The theoretical sampling model applied in the online survey method of this study was also used to select participants for focus groups. Before each discussion, participants verbally confirmed that they had participated in an internship in the Northeast. During introductions, participants often identified the state(s) where they worked, farm style and crops cultivated at the farm. Kitzinger (1995) suggests that recruiting a familiar group of people helps to capitalize on people's shared experience. Though data was not collected on the relationship of focus group participants, the

common characteristic of being at an agricultural conference and non-farm operators appeared to stimulate interaction.

Participant Recruitment

Three small group discussions were held at two sustainable agriculture conferences in different states. The first focus group took place at the Future Harvest Conference in Lansdowne, Virginia on January 19th, 2013. Fliers were placed in public spaces throughout the conference facilities and the focus group time, place and topic were announced at conference workshops included in the “New and Beginning Farmer Track.” At least one third of the final participants were recruited using person-to-person contact. All of those in attendance identified as having worked as a farm since 2009 on sustainable farms in the Northeast region or Virginia.

The other two small group discussions were held at the Pennsylvania Association for Sustainable Agriculture Annual Conference on February 9, 2013. An announcement about the focus group was posted to the Young Farmer’s Coalition Facebook page the week of the event. The researcher made an announcement about the discussion groups at a social mixer for new and young farmers during the conference. The day the groups were held, the researchers made personal contacts to recruit participants. All but three of the participants in the two discussion groups identified as having worked as a farm intern; the three non-intern participants were farmers who identified as “having internships” during introductions and were not asked to leave after it was revealed that they hosted interns on their farms.

Data Collection

A group of ten participants met over lunch for the first small group discussion. The informal setting was both necessary due to time constraints of the conference, but also encouraged a free flowing dialogue between participants. The researcher began the discussion by introducing the topic, notified participants of protocol regarding informed consent, and asking participants to introduce themselves by stating their name, the state where they worked as an intern and the crops that they worked with during that time. Three questions pertaining to successful internships were developed to guide discussion; however, the group was eager to discuss their opinions about internships and the researcher felt it best to allow conversation to flow. The session lasted one hour and fifteen minutes with conversations continuing as participants left the dining hall together. An audio device recorded the session, which was summarized in detailed notes by the researcher subsequent to the discussion.

The second and third focus group sessions were held at the Pennsylvania Association for Sustainable Agriculture annual conference in February 2012. These groups were scheduled concurrently after the keynote address over the lunch break with one hour and thirty minutes planned for the discussion. Regrettably, the keynote ended thirty minutes late and by the time the eighteen participants arrived, were given information regarding informed consent, introductions completed and the two groups formed, there was only thirty minutes to conduct the small group discussions. Two research assistants were trained on running a focus group and conducted one of the group discussions using a guide (Appendix D). Both women were research associates who worked extensively to recruit participants for the study. The primary researcher ran the second focus group. The two small groups were formed using random selection by an unrelated characteristic of the person (color of pants). Groups of ten and eight were quickly scrutinized for gender balance. An audio device was used to record the sessions; however, one device belonging

to the primary researcher failed to record. Field notes taken during that particular group and written immediately after were used for analysis purposes, in addition to the audio recording of the second focus group.

3.2.7 Data Analysis

The mixed-method approach to data analysis in this thesis followed what Green, Caracelli, and Graham (2008) describe as having a “complementary” purpose. The qualitative and quantitative instruments measured overlapping, but distinct features of farm internships. Data analysis occurred simultaneous with data collection; this served the purposes of identifying emerging themes, shaping theoretical concepts, linking factors across instruments and defining categories for the qualitative coding technique. Analysis of the different data types were initially conducted independently and then compared for convergence during the interpretation phase of the study. The sequence of data analysis occurred according to the time that data collection ended for each instrument. The research schedule of each instrument allowed for a progressive evaluation of the structure of farm internships and participant’s perceptions of this structure (farm journals), that moved into the individual experiences within the farm internships (interviews), to ending with the larger picture of the process and outcomes of the farm internship (survey) and a group assessment of the quality of farm internships from multiple farm intern viewpoints. Such timing was matched to the seasonality of farm internships: farm journalers provided data in real time while working on farms in the late summer, interviews captured the experiences of many of the participants soon after their internship ended in the fall, the survey was disseminated while work was slow on farms and farm interns more likely to be inside and using computers during the winter, and the small-group discussions were conducted shortly before the spring season when farm interns were looking for new farms or anticipating a new season and considering the qualities of desirable

internship programs. The process of analysis thereby followed these cycles; weaving the findings from each phase of the research was completed in the summer following data collection when the researcher had full exposure to the data collected and the interconnections and divergences that emerged through the overlapping phases.

Coding

Each of the instruments used in the study to collect data involved qualitative analysis and therefore, required qualitative coding. The process for coding qualitative data was very similar across all of the instruments. Saldana (2009) describes the coding process as highly interpretative and reliant on a coding method to summarize, condense and interpret the data. A preliminary cycle of coding took place during an initial reading of the qualitative data. Codes developed from previous instruments were applied and new codes created where necessary. These initial codes captured themes and patterns identified within the sentiments and experiences reported by participants. After an initial reading in the original documents, a project was created in RQDA (a statistical package for qualitative data analysis). The following two rounds of coding were conducted in the RQDA project that contained all qualitative information from each instrument. Broad coding themes were created based on the research questions and initial codes from the first phase of coding. These themes included “Benefits”, “Emotions”, “Farm Style”, “Personal Investment”, “Labor”, “Motivation”, “Relationship”, and “Tasks” with multiple subcategories. During this process, the researcher began writing code and case memos; notes from the initial reading were incorporated into these memos. The final coding phase identified theoretical issues and the relationship between themes. Categories and codes were collapsed into what RQDA terms “code categories.” This process was important in identifying reoccurring patterns across themes and theorizing relationships between these themes and the theory.

Farm Journal Analysis

The work logs from the six completed farm journals were coded first using categories from tasks that appeared on the survey, with additional codes added when an appropriate code did not exist in the survey. Codes were created for people with whom farm journalers performed tasks and the locations where tasks were completed. Once all the journals were coded, data was entered into an excel spreadsheet organized according to the codes assigned to participants' work and with whom they worked. The percentage of the total for each task completed by the farm intern for each day and over the fourteen-day study period was calculated and compared across the six journals. The frequency that farm interns worked with others and specifically, with whom they worked was also calculated. In addition, average starting, end times and working hours per day were calculated for each journaler over the fourteen-day time span and then averaged for the sample.

Participants' reflections that accompanied the work logs were read initially and notes taken on important and reoccurring themes. On average, participants made 7 reflections per journal. The initial reading and the accompanying notes allowed the researcher to develop codes that emerged from the journal reflections, previous literature and observations on the correspondence between the work log and the discussion of work in the reflections. Each reflection entry was then transcribed from the journal into a word processor and transferred as a file into the RQDA project.

In-depth interview analysis

After interviews were transcribed, the researcher undertook the coding process described above. An additional memo was made for each participant, which sought to explicate their particular story in context to the themes and theories being explored. These personal memos were organized

around the following questions: 1) What is the intern doing; 2) What is the intern trying to accomplish; 3) How exactly does he/she do this; 4) What specific means and/or strategies does she or he use; 5) How do interns talk about, characterize and understand what is going on; 6) What assumption is the intern making; 7) What do I (as the researcher) see; 8) What am I learning, and 9) Why include interns in this study (Saldana 2009). These memos were reviewed before the final coding phase to help distinguish unique or outlying characteristics that contributed to the coding and categories.

Survey Analysis

Open-ended questions from the survey were transferred to the RQDA project. Files created in RQDA were organized in two different ways. The first file maintained each open-ended question according to the participant. These were then coded for social demographic data as well as thematic codes. The second file collapsed all responses to the open-ended question into separate files; these were then coded thematically. This approach provided the researcher the ability to categorize and analyze codes by question, social demographic characteristics and participants' responses to the survey.

Focus Group Analysis

The researcher reviewed audio from the three focus groups twice, and notes taken during the sessions. Themes identified through reviewing the notes and audios were compiled into a word document. This document was then transformed into an RQDA memo in the project.

3.2.8 Analysis of Findings

The qualitative and quantitative data collected was integrated at the level of analysis by using a strategy Greene et al. (2008) call “merging.” After summarizing key findings and organizing these findings, the researcher crated a concept map. The map helped to initially reduce the data to identify key themes and patterns across all four instruments, and then deduce interconnections between these themes and patterns. It was during this process where the idea of the three “exchanges” emerged as a theoretical organizing tool that depicted farm interns’ experiences and perceptions collected throughout the study. The concept map was drawn on blank paper. The organizing concepts were transferred to note cards, on which a detailed description of the key concepts was written including the major themes and corresponding code categories, and the sources of data for the study’s findings. These cards were the primary means of consolidating the data and the point where the researcher explicated the meaning of the major themes and significance of the relationship between them. The development of a consolidated coding format throughout the sequential analysis process created a database from the numerous data sources that was helpful in capturing a holistic picture of farm interns’ experiences. By weaving the data together, the results from different instruments were intended to “enhance, illustrate, or clarify” results from the others (Clark and Creswell 2008).

3.3 Ethical Issues

3.3.1 Trustworthiness of the Research Process

This phenomenological research aimed to be robust in indicating the presence of particular themes within farm intern’s experiences. But the goal of the research was not to determine the extent that these themes relate to the larger intern population. The issues attended to in this study

regarding the veracity of the research method addresses the quality of the work, not its generalizability. Yardley (2000) offers principles for addressing the quality of qualitative research, which guide the evaluation of trustworthiness in this study. “Sensitivity to the research context” was attended to during the development of the research-participant relationship. The research methods aimed to respect the insular nature of sustainable agriculture in Pennsylvania, and the researcher was considerate of the timing the research was conducted (seasonal work load of interns), and the personal manner in which people were recruited and included in the study. “Commitment” in this study involved establishing a safe and comfortable place where interns could discuss their experience. A concerted effort was made to include relevant and stimulating questions in the interviews and the research team was accountable to the feedback and expressed needs of participants in regards to information and involvement in the project. “Rigor” was accomplished in the careful selection of interns that could speak to the research questions and diligence on the part of the researcher to collect deep information from participants in a way that honored personal space and allowed an open, safe environment to reflect and share.

Throughout the research process the methods and means to achieve the study’s goals have been open to scrutiny from other researchers and the study’s participants. Moreover, participants were provided information on the researcher’s objectives, history in the topic and investment in the project prior to and after their participation. This active expression of reflexivity and personal transparency seemed to provide a greater sense of accountability to hearing the farm intern experience. The coherence of the project rests on the relationship between the theoretical concepts explored and the information gathered from interns lived experience of those themes.

3.3.2 Situating the Researcher

This research was undertaken to provide a voice to workers who I perceived to be largely invisible in the alternative food system and food system research. It serves a personal objective to make research have practical application to efforts addressing social injustices in sustainable agriculture. My motivations for undertaking the research topic are self-directed; I worked for one season as an intern on a sustainable farm and subsequently as an hourly farm worker on sustainable farms in Colorado and Oregon for two full years. Arriving to graduate school I volunteered on small farms in Central Pennsylvania and worked the summer season on a small farm outside of State College, trading my labor for room and board. Consequently, the distance between my experience and the experience of participants was very short, and thus required special consideration in applying the research methods and analysis. On one hand, the ability to relate to participants increased my ability to ask relevant questions and dig deeper for information not available to someone unfamiliar with internship programs or sustainable agriculture production in Pennsylvania. Conversely, my own perceptions of familiarity with the topic and the experiences being described exposed me to assumptions and suppositions, which could affect the breadth and depth of information collected during interviews. As a white, well-educated and middle class adult my social and class position privileges my movement into spaces perhaps not open to others whose gender, class and race/ethnicity have a marginalizing effect in sustainable agriculture.

Conclusion

This chapter presented an interpretative phenomenological analysis and feminist approach to the research methodology and related mixed-method design appropriate to the complex and

exploratory nature of the study's research questions. Using four instruments to collect qualitative and quantitative data provided insight into the practice of farm internships on sustainable farms and the meaning and significance of this experience for those who participate. By using different instruments to capture overlapping but distinct factors of farm internships and weaving together findings in the data analysis allowed the researcher to obtain multiple perspectives on the same subject. In addition to the research approach and data collection, the chapter included a discussion of ethical considerations of the research process. The next chapter presents the main findings of this research study.

Chapter 4

Interpretation and Analysis of Findings

4.1 Who are Farm Interns?

This section of Chapter 4 explicates the descriptive characteristics of farm interns who participated in the study. The findings in this section should not be generalized to the larger farm internship population due to the methods used to collect data. Nevertheless, the discussion is important to the intern experience based on the evidence that the participants' social position bears on their ability to take a salary sacrifice to participate in a farm internship for reasons other than monetary return. Moreover, the dearth of studies looking at farm interns makes these initial findings not only unique but hopefully helpful for future researchers looking to study the population. The data in this section was collected from demographic sections of the survey and written questionnaires provided to farm interns who completed journals and were interviewed for the study.

4.1.1 Farm Intern vs. Farm Apprentice

As discussed in Chapter 2, there is no standard definition that differentiates interns and apprentices on sustainable farms and thus, no definition was provided to assist survey participants when selecting the role they played on sustainable farms. The study's survey included both titles to reflect their common use in the sustainable agricultural community, but the distinction between intern and apprentices was not a theme presented to study participants in the three other data collection methods. The term that survey participants chose to describe their role on sustainable

farms can be found in Table 4-1. Of the one hundred and thirty two persons who completed the survey, only ten were currently working as interns (7.6%) and twenty-seven were current apprentices (20.5%). Many more had been interns in the past (45.5%) or former apprentices (42.4%). Only those who had formerly worked as both interns and apprentices selected more than one category (19%). It was not the goal of this study to establish a schematic typology of the different roles that interns and apprentices play on sustainable farms. Moreover, none of the arrangements described by participants matched the criteria of a federally regulated apprenticeship programs. Simply, there are few existing programs in the US that embed external oversight to the training component of working on sustainable farms to qualify the programs as formal apprenticeships. Based on these criteria, the decision to refer to participants as farm “interns” and the process of their training as an “internship” in this study was appropriate. Such terminology is consistent with participants’ pursuit of on-farm training without formal oversight of this training provided by regulatory agencies. Only in discussing the quantitative findings of this research will the terms ‘intern’ and ‘apprentice’ be used where participants self-identified as one or the other.

Table 4-1: Survey respondent identification as intern or apprentice

Title of participant on sustainable farms,
US Northeast Region, 2012-2013

Farm Title	Number of cases	Percentage of sample¹
Intern	10	7.6
Apprentice	27	20.5
Former Intern	60	45.5
Former Apprentice	56	42.5

N = 132 respondents

¹Percentage does not add to 100 since respondents were given option to choose more than one title

Table 4-2: Descriptive characteristics of study participants

Demographic characteristics of survey, interview and farm journal samples,
US Northeast Region, 2012-2013

Respondent Characteristics	Survey (%)	Interviews (%)	Farm Journal (%)
<i>Race/Ethnicity</i>			
White	93.9	95.7	100.0
Black	.8	-	-
Asian	.8	-	-
Native Hawaiian	.8	-	-
Other	3.8	4.3	-
Number of cases	132	23	6
<i>Educational attainment</i>			
High school	1.5	-	-
Some college	9.8	4.3	16.1
Associate degree	1.5	-	-
Bachelor	63.6	82.6	66.7
Master's degree	22.0	21.7	16.7
Doctorate degree	1.5	-	-
Percent with a certificate in an agricultural- related discipline	31.5 ¹	N/A	N/A
Number of cases	132	23	6
<i>Gender</i>			
Female	74.2	72.0	67.7
Male	25.8	28.0	32.3
Number of cases	132	25	6

¹ N= 123; this question appeared as a separate question on the websurvey and was not asked specifically to interview and journal participants

4.1.2 Descriptive Characteristics of Farm Interns

Race

Sustainable farming is a methodology committed to less environmentally destructive practices and economically marginalizing than those used in conventional agriculture. As discussed in Chapter 2, the social dimensions of sustainable agriculture are largely neglected, including who can access and therefore receive the benefits of an alternative food system. Race and ethnicity are areas where social inequalities prevail in the sustainable food movement; studies show that people involved in the alternative food movement disproportionately constitute a white and upper income demographic (Hinrichs 2003; Guthman 2011). Alkon and Agyeman (2011) call this lack of racial diversification the “homogenization” of sustainable agriculture. The interns who participated in this study resemble such a characterization of race and ethnicity in sustainable agriculture. Nearly ninety-four percent of survey respondents identified as white, with only three respondents identifying as Black, Asian, and Native Hawaiian, while five elected the ‘other’ category that included people refusing to disclose their ethnicity (Table 4-2). All but one of the interns who participated in interviews and farm journals identified as white (n=31); demographic information was not collected from focus group participants. Of the total one hundred and sixty three participants in the study (including survey, interviews, and farm journals), ninety-five percent identified as white and only six from this sample¹ (3.7%) reported having a different country of origin other than the US. As a white, male survey participant succinctly concluded, “I find that if it is an alternative food organization, almost everyone is white.”

¹ All six persons who reported having a different country of origin other than US were participants from the survey.

Educational Attainment

Laborers in conventional agriculture typically have low levels of formal education, the majority of whom do not even have high school diplomas (Carroll and Saltz 2008). Conversely, educational attainment among farm interns on sustainable farms in this study was exceedingly high. Eighty-four percent of interns in the survey reported having earned a Bachelor's degree, while twenty-two percent received a Master's degree, thirteen percent had some college but not completed a degree and only one percent of the sample had received less than a high school diploma (Table 4-2). Of those interns who took the survey that pursued an education after high school, over a third (39%) received degrees or a certification in an agricultural-related discipline. Persons interviewed for this study were also highly educated. Only one person interviewed did not finish college and the remaining twenty-four people in the sample had earned college diplomas in diverse fields. For those participants who had just graduated from college, their education was an important introduction to work on farms. Literature on the food system is making its way into college curricula according to participants and an increasing number of universities and colleges have farms on campus or associated with the institution. Four of the interview participants worked initially on their school farms as volunteers before taking an on-farm internship either at the school or with a family farm enterprise.

Gender

Though historically a male profession, the number of women working in the US agriculture sector is increasing. Indications are that there are more female operators today than when the USDA began to ask an operator's gender in 1978 and count multiple operators per farm beginning in 2002 (in fact, the number of female operators tripled from five to fourteen percent of

farms from 1978 – 2002; USDA 2005). Studies within sociology of agriculture and rural sociology show that first-time women farmers in sustainable agriculture are attracted to the smaller scale, marketing strategies and underlying philosophy of farming sustainably (Trauger 2004). The rise in women's work as farmers in conventional and sustainable agriculture does not change the reality that farm workers and farm owners in the US are predominantly male (USDA 2005). However, a majority of participants in this study were women. Seventy five percent of the survey participants (74.2%), four of the six interns who completed farm journals (66%), eighty percent of persons who gave interviews and seventy percent (70.5%) of focus group participants identified as female (Table 4-2). Based on the sampling methodology described in Chapter 2, in no way does this data offer a representative view of the number of women and men working as farm interns. However, this many women offering their stories as farm interns is an important finding as it relates to the longer history of women's participation in agriculture.

Young and Transient

Contemporary sustainable agricultural literature portrays farm interns as mostly young adults with the desire and resources to work on multiple farms in different locations to gain a greater range of experiences (Smith 2005). In this study, the average age of a respondent was twenty-eight. While interns fit the historic profile of people trained in crafts as being young, the people who participated in this study were not geographically stable but quite the opposite (Table 4-3). Nearly fifty-five percent of those who completed the survey reported participating in multiple internships on different farms. Of those who reported having more than one internship, sixty-five percent had completed two internships, twenty-two percent participated in three, and nearly seven percent were interns on four or more farms.

Table 4-3: Features of survey respondents during farm internship

Age of survey respondent at time of survey, year of first internship, number of internships, migration for internship, US Northeast Region, 2012-2013

	Number of cases	Percentage of sample
<i>Age group (years)</i>		
20-25	56	42.4
26-30	37	28.0
31-35	16	12.1
36-40	13	9.8
41-45	5	3.8
46+	5	3.8
Total	132	100
<i>Date of First Internship</i>		
2013	2	1.5
2012 -2010	81	62.3
2009 -2007	25	19.2
2006 - 2004	8	6.2
2003 – 2001	5	3.8
Before 2000	9	6.9
Total	130	100
<i>Number of internships if more than one</i>		
1	60	45
2	47	36
3	16	12
4	9	7
Total	132	100
<i>Traveled in last 12 months to work on a farm</i>		
Yes	63	47.7
No	69	52.3
Total	132	100

Farm interns typically were not permanent residents of the communities where they worked and moved off the farm when the work slowed or they returned to school or started a different job. More than half of survey respondents had worked on a farm within three years of taking the survey (Table 4-3) and another half had moved in the previous twelve months to participate in their internship. Mobility and flexibility provided farm interns access to a variety of farms with different production systems. This trend to work on different farms was thought by interview participants to increase the diversity and comprehensiveness of a farm education. At the individual level, mobility is viewed as an advantage and privilege. Migration between farms was a choice, not a function of economic necessity. A former apprentice responding to the survey noted that negative aspects of migration could be mitigated by the relationships developed between interns and others in the farming community, “Being an apprentice can be a very transient experience - and force you to move through various communities to learn the skills that you want. But I worked with a model of CSA that had high member involvement, and I was able to build more relationships with the community, which really helped battle the isolation that can come from transience.” Such social acceptance acted as a buffer to the solitude experienced while working in a rural area in the absence of embedded support networks.

Access to Healthcare

Agriculture is ranked as one of the most dangerous occupations in the US (OSHA 2013), making farm laborers’ access to health care particularly important in case of work related injuries. In this study, seventy three percent of survey respondents reported having health insurance. However, the question did not ask respondents to specify whether they had insurance coverage while working on farms. The same question was asked of interview participants and who provided their insurance plan while interning.

Table 4-4: Farm intern health insurance coverage and provider

Survey and interview respondents' access to health coverage and healthcare provider, Northeast US and Pennsylvania, 2012-2013

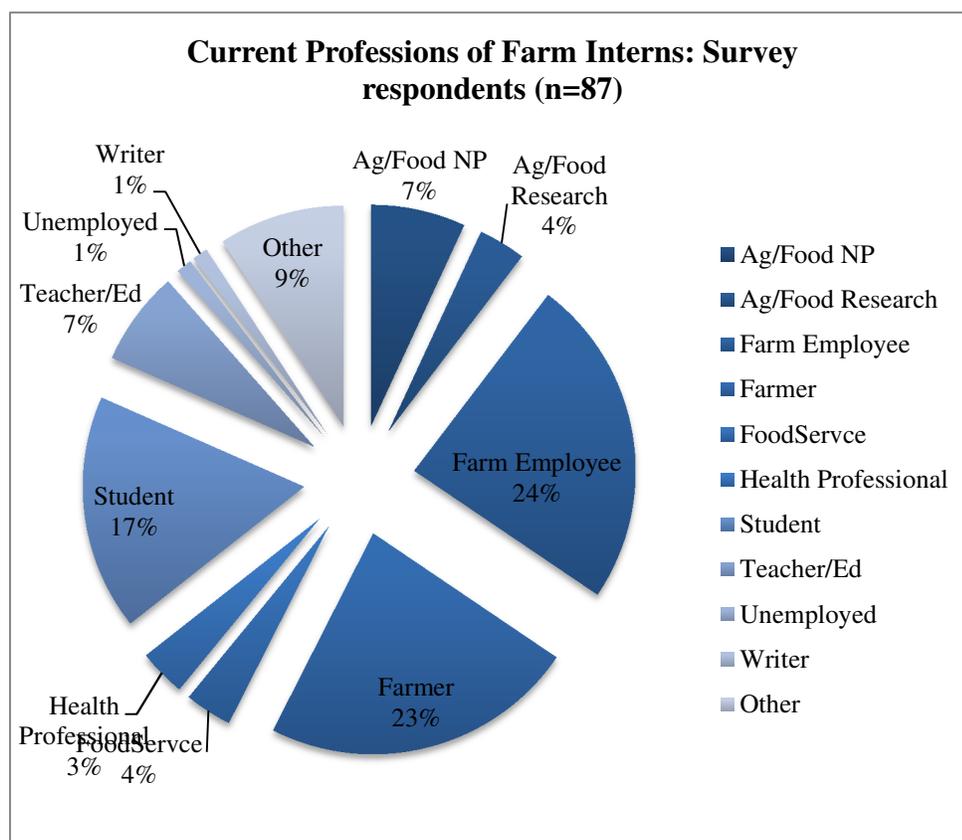
	Survey Sample	Interview Sample
<i>Respondent has health (medical) insurance</i>		
% Yes	73.3	80.0
% No	26.7	20.0
Number of cases	131	23
<i>Health Insurance Provider</i>		
% Self-insured	N/A	15.0
% Employer other than farm	N/A	20.0
% Parent	N/A	60.0
% Partner	N/A	5.0
Number of cases	-	23

The majority of respondents received benefits from a family member, followed by an employer other than the farm and a small percent were self-insured (Table 4-4). No one involved in the study reported having medical coverage provided by the farm where they interned.

Professional Career Paths

Survey respondents who worked in the past as farm interns were asked to list their current profession in an open-ended format. Of the eighty-seven persons who responded to the question, the largest group identified their career as a farm employee (24.1%), which included being a paid farm manager or farm worker (Figure 4-1 next page). The second largest group was people farming as a profession (23%) followed by former interns who were attending school (17%).

Figure 4-1



The high response rate of former interns who pursued careers in farming could be attributed to the agricultural networks through which the survey was distributed.

When prompted on the study's survey to report whether they would pursue an additional internship, over sixty percent of participants answered affirmatively (Table 4-5). What these results indicate is that not everyone who is trained on sustainable farms applies these skills directly to production agriculture. However, current interns in the survey and interviews did express strong interest in continuing to do farm labor either as an owner or worker and stay involved professionally in the sustainable food movement.

Table 4-5: Farm interns future participation in sustainable agriculture

Survey respondents' plans to intern in the future, work in sustainable agriculture, US Northeast Region, 2012-2013

	Number of cases	Percentage of sample
<i>Would pursue an internship in the future?</i>		
Yes	81	61.4
No	51	38.6
<i>Would pursue work in sustainable agriculture?</i>		
Work as a paid farm worker	52	39.4
Lease land to farm	39	29.5
Own a farm	64	48.5
Pursue formal training in agriculture	28	21.2
Pursue other jobs related to sustainable food	65	49.2
Other work in sustainable farming	7	5.3
N=132		

4.2 Motivations of Farm Interns

Farm interns were asked about their personal motivations for seeking on-farm internships and why farm internships mattered in the context of their lives. Interns' motivations extended to how they chose farms and what criteria helped them make a decision about what might be a suitable host farmer. The analysis in this section specifically addresses what farm interns expected to gain from an internship, farm internship attributes that would fulfill these expectations, and the motivates behind these expectations. These questions explore whether farm interns employed what Weber conceived as substantive rationality to assess their farm internship experiences. The modern farm intern is positioned within capitalism's calculable and efficient market system, but does not choose to exchange her labor for monetary earnings. If not choosing a farm internship based on economic costs and gains, what then are the alternative reasons beyond training that lead persons to farm internships?

The following section is organized according to themes identified in the qualitative coding process from intern interviews and open-ended responses from the survey. Included in the analysis is the quantitative data from the survey that intends to demonstrate resonance between the data collected from both the qualitative and quantitative instruments. Qualitative codes were not identified from the motivation factors used in the survey; at the completion of the coding process the qualitative themes were compared to the survey's motivation factors to identify similarities and dissonance with the quantitative data. The layered format of these findings therefore allows for interns' stories to drive the analysis and themes from these stories are subsequently placed in the wider context of survey participants' responses.

4.2.1 General Motivations to Become a Farm Intern

The question exploring motivations posed to interns in the survey and interview asked: why did you choose to work as an intern/apprentice in sustainable agriculture? Less than twenty percent of survey respondents ranked receiving a wage for their work (only 15.9%). Assuming that farm internship remuneration emphasizes education and training instead of monetary compensation, a logical answer to this question might be, “Well to learn how to farm, of course.” But, the path to a farm internship was more nebulous than simply a willingness to take a salary sacrifice to learn sustainable growing methods. No less than twenty qualitative codes were used to analyze interviews and ten factors appeared on the survey to capture the motives that moved interns into learning sustainable agriculture production on farms. A place to start this analysis is then the farm intern's inclination to learn and acquire skills and move down the path as interns described their journey to sustainable agricultural production.

Overall, a majority of survey participants considered gaining agricultural skills important (88.6%) compared to other motivations listed on the survey (Table 4-6). More than half of the same respondents considered receiving farmer training (59.8%) as very important to their reason for becoming an intern. Of the twenty-five interns interviewed for this study, sixteen (64%) expressed the desire to pursue farming as a vocation and affirmed that an internship was critical to actualizing their desire to farm in the future. This was also the case for survey respondents, many who reported that they would seek future work in agriculture. Nearly half of those who completed the survey indicated that they planned on owning a farm and nearly a third reported that they were interested in working as hired labor or leasing land to farm (Table 4-5). Given the opportunity to specify what types of work they were considering doing in sustainable agriculture, another fifty percent of respondents said that they would pursue a job related to sustainable food,

and nearly the same number said that they had plans to own their farm. As these types of jobs are not mutually exclusive, respondents could make multiple selections.

Table 4-6. Farm interns' rating of motivations for participating in a farm internship

Survey respondents' ratings (%) of their motivation to participate as a farm internship, US Northeast Region, 2012-2013

Motivations	Very Important (%)	Important (%)	Somewhat Important (%)	Not important (%)	N/A (%)
Train as a future farmer	59.8	25.8	10.6	3.0	.8
Experience of living on a farm	34.1	18.2	21.2	12.9	13.6
Participate in a farm-based community	31.8	34.8	23.5	8.3	1.5
Better access to local food	28.8	34.8	21.2	13.6	1.5
Learn mechanical skills	16.7	18.9	37.1	18.2	9.1
Pursue a wage/livelihood	15.9	26.5	31.1	22.7	3.8
Live in a new place	9.1	13.6	22.0	43.2	12.1
Learn carpentry skill	7.6	10.6	30.3	37.1	14.4
Requirement for school/job program	6.1	2.3	4.5	44.7	42.4
Learn agricultural skills	1.5	88.6	8.3	1.5	-

N=132 respondents

Working on a farm, wrote one survey participant, was a means to exploring whether they were suited for the work, "I want to be a farmer and I wanted to see if I could do the work." Another survey respondent asserted that though confident he wanted to farm, his farm internship helped him "figure out if I can do it long-term."

Those who identified as future farmers in the study were more likely to suggest that, though intrigued by the idea of farming, until they worked on a farm they were unsure of what committing themselves to farming entailed. As a survey respondent noted, "Unless one wants to

be a subsistence farmer/homesteader, one cannot be a farmer without a business plan and an understanding of how to market your products. Apprenticeship is a way to gain first-hand experience in a variety of farm models and to decide which you might be best suited to/ want to pursue.” Thus, a strong motivation for completing an internship was to perform the work as farmers practice it. This process also acts as credentialing that might help interns be hired as waged labor or manage their personal farm venture. A farm internship served as a mechanism to garner skills and knowledge. Yet, future farmers were also driven to prove to themselves and others that they could thrive in the profession.

A Desire to Understand Agricultural Production and Farm Systems

A technical understanding of what goes into farming and how farm life is organized was for many participants important to acquire through experiential learning. As an alternative to academic settings, farm interns sought a place where they could become knowledgeable about sustainable agricultural methods applied to a working farm, and develop requisite farming skills from an experienced farmer working on the land. An internship thereby offered a mechanism to establish a basic proficiency in how farming systems might be organized. Margaret interned from February to November at a small farm that grew organic meat and did not anticipate the amount of information that would be necessary to work on a farm:

I totally under estimated all of the things that you need to know to be a farmer. I totally underestimated that. I didn't necessarily need a lot of money; I didn't know what I wanted to do. I knew I was interested and wanted to learn more, so it was open ended for me. Educationally, I knew there were elements that I would learn that I need to know. Like, what a chicken eats, how often it eats, how big a space you need to keep it in. All these things you have to know to have a chicken, that a lot of people know who have chickens. I guess I was a sponge, I want to know it all. Whether that was stuff that made sense or other things that I wanted to be genuinely educated on further.

For those who chose to intern at multiple farms over the course of several seasons, their objective was to understand how farming practices could be applied to the multiplicity of growing systems, and to continue practicing what they learned under varying conditions. Lisabeth volunteered on her University's farm and completed a previous internship on a private farm before working on a vegetable CSA in Pennsylvania, "I didn't have a tangible thing in mind, but I was really excited to just build on my skills that I already had – a better understanding of what foods are grown when and how to harvest them, how to market them. Really studying how different varieties of plants grow." Considering that no one interviewed from this study came from a farm background, farm interns expected a steep and rapid learning curve that would be climbed by practicing what they were learning.

Motivated to Work in Sustainable Food Production to Change the Food System

Farm interns sought to gain knowledge and skills that dealt with the technical aspects of farming so as to better understand the US food system. An interest in the social and economic consequences of conventional agriculture prompted interns to want familiarity with farming methods used to grow food distributed in the alternative food movement. Their reasoning suggested that without the experience of what it takes to grow food, invoking a fundamental change to the structure of the conventional food system to a more sustainable model might ultimately be misguided. Simply, if one does not know how food can be grown sustainably, then constructing an alternative food system involves guessing about the most important element of that system: the origin of food.

This perspective is articulated by Aden who worked on an organic vegetable CSA:

I don't think that everyone going into this is saying, 'I'm going to be a farmer in the future'. It was more of 'I'm very interested in agriculture and I really want to work in the food system arena.' So I said to myself: 'How can I advocate for the modification of the food system if I don't know where the roots of it lie?'

Similarly, another survey participant wrote, "I believe it is important to fully understand what it takes to grow food in order to promote sustainability." These individuals speak to a prominent theme in farm interns' motivations to intimately understand agricultural production to be able to advocate for an alternative to conventionally produced food and food systems.

Inspired by the Sustainable Agricultural Movement

Public awareness of the constellation of issues amiss in the conventional system has been brought to American eaters' attention leading to scrutiny of how food is grown in the US. The local food movement has introduced people without farming backgrounds to the idea that more farmers with smaller farms are needed to feed Americans. Local food production if equated to sustainable farming aims to protect natural resources and improve the livelihood of those growing the food.

Aden articulated the importance of these ideals as a motivation for becoming an intern by saying:

I think that people need to be fed well. People need to learn what real food is and to be a healthy person I think it is essential to eat real food. Not something that's been in a factory forever and gotten processed like a cornflake that has a pretty picture on it that is attracted to us to eat, but if you can eat real food and support the people who produce that for you, overall I think it's beneficial on so many levels – economically, health wise, environmentally in some cases depending on the practices.

Farm interns connected their personal value system to the sustainable production of food. This value system emphasized the economic viability of small farmers and revitalization of local economies, the conservation of natural resources and human health as it relates to food consumption.

Acting on Food Values Described in Popular Media

How then did participants in this study make the connection between sustainable agriculture and a farm internship? The local food movement and foodie culture (Johnston and Baumann 2009) in the past two decades were propelled by popular literature and in film. Books such as Michael Pollen's "Omnivore's Dilemma", and food documentaries such as "Fast Food Nation" and "King Corn," offered the US public a comprehensible and captivating critique of the conventional food system that galvanized local food eaters under a banner of conscientious eating and food activism. Emerging from popular media about local and sustainable food is a young cohort of what a professor of agricultural economics calls "Pollen-ators." Randy exemplifies this pollinator characterization: he was a college student who lived with his parents during the summer and found work at an urban farm after becoming more aware of the benefits of local food. His path to an internship began with an interest in healthy food that he explored through print and film initially:

I was interested in what should I eat, and I like to read a good bit so I started reading and went to the school nutritionist and talked to them about it. They said you seem really interested in it, you should check out these books and she suggested I read *Omnivorou's Dilemma*, and *In Defense of Food*. That was sort of a starting off point for me in getting into it. At the same time 'Food, Inc.' was running on the student movie channel so it's kind of a mix of things all at once.

The connection between personal and social values is made through food, a resource that is extraordinarily important and common. It is not an exaggeration to say that interns, such as Randy, opened a book into the farm world after discovering a new way to think about food.

Wanting to Learn How Food is Grown Follows a Change in Eating and Cooking Habits

An increased interest in cooking food is a personal artifact of the public dialogue on local and alternative food systems according to farm interns' responses from the interviews and survey.

Farm interns suggested that after becoming more aware of the workings of the US food system and conventional production methods that their cooking and hence, eating habits changed. Eating healthy, fresh food and knowing where it came from became important to farm interns' lifestyle choices. Such was the case for Erin, who lived and worked in New York City before moving to Pennsylvania to intern on a small, family farm: "I had just gotten into cooking and absolutely loved it, and I just wanted to dive in" is how she explained her initial interest in sustainable farming. What farm interns put into their body led them to value how food was grown. People like Aden and Erin considered eating local and sustainable food as a core value that became manifest in an interest in growing food, or at least, understanding the origins of sustainable food. Aden's passion for working in sustainable farming emanated from his environmental values with food as a focus. After graduating with a B.A. in an agricultural-related field, he began work on a non-profit farm near his family and a large metropolis:

Food and the joys that I get from that I think are what drove me to why I'm here because food is essentially important to me. That's how you survive. So in conjunction with my love for nature and the environment and thinking that I was going to go into environmental resource management going into college, starting to learn about that you can't avoid talking about agriculture like having that click moment where it was like the environment and how they are so intertwined and how I just want to learn about how contemporary system, how food is affecting the environment and in what ways, if necessary, it can be changed, modified rather.

Aspirations to Support Collective Efforts to Grow Sustainable Food

The high social value of food grown sustainably emerged as a strong factor in how interns connected their personal decision to work on a farm to a social cause. Characteristic of those in this study who expressed a desire to contribute to a common good was their motivation to provide food access to eaters and educate the general public on the importance of sustainable agriculture. The rationality applied by interns in these cases was that by working on a sustainable farm, one

could contribute to amplifying (and making available) the amount of sustainable food in the food system. As a vital feature of life, interns' anticipated the rewards of providing food grown sustainably to the public. Sean moved to Pennsylvania after receiving a B.A. at a liberal arts college in the Midwest and pursued an internship to learn how to grow food for other people: "It's a great way to contribute, people need food and you don't have to convince them, people need food. I like that. It's a necessary thing for people. And it's growing food organically and sustainable is a positive way to make an impact on the community around you." Moreover, the food interns expected to produce would be imbued with social and economic values via the production process and could potentially challenge many of the inequities they observed in the conventional food system. By supporting a farmer's efforts to grow food with her own power and not rely on mechanization, an intern was engaged in activities that protected natural resources with the dual benefit of the farm and local community. Supplying subsidized labor improved the profit margin of a farmer who struggled to make a living in an oppressive cheap food economy. An intern's labor therefore was justified by respondents as achieving social, environmental and economic sustainability while providing the community an essential resource required for the survival of the human species.

Promoting the Importance of Eating Sustainably Grown Food

Working on farms also presented farm interns opportunities to connect with eaters, either through a farm's direct marketing practices or community programming on the farm. Nearly a quarter of those who shared their story in interviews based their decision to participate in internships on a farm's explicit social directive to increase community food access and/or educate eaters. Family farm enterprises offering internships made it possible for persons interested in food, and motivated to contribute to a social good, an experience that combined labor with service and

teaching. In the case of Amanda who interned during three summer months to fulfill a graduate school requirement, her interest in agriculture developed from a focus on social justice causes. She chose to complete a farm internship with an urban farm that began when two churches converted an abandoned lot to produce food for the low-income residents. Says Amanda of her decision to be a farm intern: “Well I was interested in their mission as a community farm. They are in an area that is low food access and they have a farmer's market and they were also a point for a food bank.” Aden worked on a farm that hosted groups of school children throughout the summer to educate young eaters on where food comes from. This component of the farming process contributed to his desire to promote an alternative approach to growing and eating food. Farm interns saw their potential role on a farm as promoters of sustainable agriculture while applying themselves to a farm's ability to remain economically viable and therefore supply sustainably grown food to interested customers.

Performing Outside and Physical Work

Motivated by the cause and outcomes of sustainable agriculture, there were many personal reasons why women and men sought farm internships. A factor presented in the majority of farm interns' stories about why they sought farm internships was the desire to work outside using their bodies to work. The phrases “desk job” and “using my hands” were commonly employed when farm interns juxtaposed working in conventional jobs and the joy they found in taking an internship. Farming provided an alternative way of working that allowed interns contact with nature, a connection to their body and freedom from walls and bright lights. Albert discovered while studying for a Bachelor's degree that his volunteer work on the school farm could be a permanent solution to sitting inside all day, “At that time in my life I was a serious college student so I spent just about all of my time indoors using my brain and very little time outdoors

using the rest of my body. The feeling that I would have the opportunity to do that part time and once I started doing that part time I realized this was the one thing I want to do for the rest of my life.” It should be noted that fewer participants mentioned this pair (rejecting an inside desk job, taking on work with their hands) as a motivating factor *before* starting work on a farm compared to the number of farm interns who considered being outside and using their body as benefits of a farm internship following the experience.

Experiencing New Places and Ways of Living

The seasonal nature of farm work and opportunity to be provided housing and food prompted two interview participants to consider farm internships as a short-term way to travel and explore new places. The desire to explore the world following an education in academia was certainly more prevalent among the group interviewed than surveyed. None of the participants in this study relayed their internship experiences on arrangements made through Willing Workers On Organic Farmers (WWOOF), a program that offers travelers room and board in exchange for part-time labor on farms. The arrangement is generally temporary and comes with less of an expectation to learn than the farm internship model being studied in this research. However, interns such as Kristine did WWOOF internationally before becoming a farm intern in the US. Kristine WWOOFed in Europe and returned to the US immediately after the experience to investigate the opportunities to farm professionally:

After college, I traveled for a while and then I went to Italy and while I was there I worked for a month as a way to travel and there was some entertaining the idea of owning a farm but was not sure I'd want to do it full time. I decided that when I got back to the states, I thought about any other ideas of what I wanted to do for a career. I looked into some farm internships.

Instead of using farm internships as a means to travel in the US, Kate began to work on farms in the US to explore a potential career path. The majority of farm interns interviewed related their

decision to farm in a new location as motivated to seek out a specific farm or experience, rather than a new place. Nevertheless, having to move to a new place to participate in an ideal farm internship did not deter participants, but rather was looked upon as an opportunity to experience life in a different community.

Quality of Life During Farm Internships

Only a third of survey participants ranked factors related to quality of life very important to their choice to become a farm intern. These included the desire to experience farm life (34.1%), to live in community (31.8%) access to local food (28.8%) and moving to a new place (9.1%) as very important to their decision to be a farm intern (Table 4-6). Interviews and comments on the survey told an important story about these factors: the food, place and farm community were central to maintaining the intern's well-being during the internship. The importance that these factors had to becoming a farm intern varied according to the participant's lifestyle choices before the internship and expectations of their lifestyle during an internship. Notably, monetary compensation was never mentioned as a motivating factor to taking a farm internship during interviews. As will be discussed in section 4.2.2 discussing farm interns' expectation, the common understanding that farm internships are poorly paid and educational opportunities might explain this finding.

4.2.2 Expectations of Farm Internship Experiences

Receive Training on How to Grow Food for Self and Others

There was broad expectation on the part of farm interns that an internship would provide agricultural skill development as discussed above, but there were also expectations on how these skills and experiences would be delivered. Farm interns reflecting on what they wanted from their internship spoke about being able to do farm work, rather than knowing more about agriculture. Bianca strongly emphasized this point saying, “I saw this summer, or my internship, as an opportunity to gain skills. My main objective was to gain this skill to farm not really the knowledge of farming.” Farm interns did not regard reading a book or an internet search sufficient means or method to learn farming. Perhaps, interns explained, they could gain sufficient understanding of sustainable agricultural concepts from written material (many in the study relied on these materials to inform and supplement their experience). However, to feel confident that one was capable of executing farm tasks proficiently, interns wanted a place to practice farming in a realistic setting.

Only three participants in the study’s surveys and interviews said that they sought a mentor as a primary motivator for working as a farm intern. This is significant to note considering the literature consulted for this study emphasizes that to learn to farm well, an intern requires a good farm mentor. As the subsequent section on interns’ expectations demonstrates, few farm interns expected to gain a farm mentor through their experience. However, the involvement and guidance of a farm mentor was described in this study as critical to their training and an important benefit of the intern experience.

Hard Labor and Long Hours to Learn Sustainable Farming

Though farm interns expect to work hard, in reality they could never have expected to work as hard and as long as they did on farms. Kristine spoke to this point saying, “I expected to work really hard. I expected I would be working really hard but I also knew that I couldn’t possibly imagine how hard it would be, because I’d never done that kind of labor before.” Although they anticipated that the best way to learn was to do the work farmers do, farm interns were clearly surprised by the intensity of labor performed on sustainable farms. However, farm interns working on private farms reported working more hours than they agreed to work, or were unclear of the work expectations and left in disbelief by the amount of labor required of them by the farmer or farm manager. Conversely, there were strict regulations against working more than originally agreed upon among programs overseen by Universities and non-profit organizations. Farm managers from these internships enforced working hours established contractually at the beginning of the season. But even under these circumstances, the intensity and demands of farm work as described by interns was unexpected. Albert worked for a University farm that limited interns to working forty hours per week and recounted the work this way:

All the things that I’ve maybe struggled with [on the farm], I had fair warning. So, just like in terms of the physical requirements of farming, like working the long hours and being outside being exposed to the elements. All of that I knew in advance but that doesn’t necessarily make it really easy to deal with at certain times.

Despite the expectation to work hard, in practice farm interns were surprised at the amount and intensity of work required to operate a sustainable farm.

Work and Train within a Program Structured by the Farmer

Farm interns who reported wanting to work but not necessarily as long or hard, also were expecting a structured program that would provide deliberate educational and mentorship opportunities in addition to labor. Alexandra anticipated being incorporated into the farm's labor system and to learn within the structure of a deliberate teaching program, but to her surprise there was no system. As she explained in her interview:

That's one of the interesting things about my experience is the delegation and the structure isn't there. It's kind of varied on how the owner of the farm is doing. So there was some structure but it was a flexible structure. It was really interesting because as the CSA manager, I was coming into it thinking about is it like a job I would get somewhere else. Like I would have had a different mindset than a farm mentality at that point. I assumed I would be given responsibility and given the paperwork and given this is what's going on here, here's all the tools you need now go get 'em kind of thing, and it was really not like that.

Constituent to this expectation is that farm mentors would be knowledgeable, experienced and capable of sharing what they knew to interns working on the farm's operation. The context for workplace learning is oriented more towards learning than teaching. Naomi acknowledged that her expectation was a formal training and education that would be more technical:

I guess I expected it to be more structured and formal in some areas than it is. I guess most of the time it's sort of working, let's get this done, and if I can give you a piece of knowledge along the way then I'll do it. The farm manager can show us something, point out something along the way then that's our education. I think that most of our education is up to us to ask questions and be observant and watch what they're doing, they don't write it down on a worksheet and test us on it.

Interns assumed that more of their time would include explanation from a farm mentor or they would be working in an educational setting. The informal nature of most internships where participants learned to farm dictated that the teaching and educational program was left to the farmer's ability to teach and their individual personality.

Remuneration to Meet Basic Needs while Working Without Pay

In return for their work, farm interns expected planned educational opportunities, but many did not expect to be paid or paid well. When looking for farms that offered internships, participants were aware that they should not count on financial compensation at levels expected of other jobs that involve manual labor. As one respondent of the survey noted, “It isn't a position where I'd expect to earn a lot.” which was echoed in the words of another former intern, “I was learning and didn't feel like there was a certain amount to earn.” Farm interns who were interviewed and surveyed were not asked a specific amount in regards to what was fair compensation for a farm internship. Survey and interview participants were asked instead whether what they did receive was fair. Retrospectively, those who had trouble making “ends meet” during their internship suggested that they should have expected to earn more. Pertinent to anticipating what one should make is the ability to compare farm intern stipend rates or have access to information about standard pay scales for those performing farm labor. But the arbitrary nature of internships on sustainable farms without oversight or coordination makes this both logistically complicated and challenging to set a single rate for such variable on-farm training arrangements.

A Personal Relationship with a Farmer

A crucial factor of a farm internship is what an intern expects from their relationship with a farmer or farm manager. Interns who recalled anticipating challenges or seeking specific features of an on-farm training arrangement did not include healthy relationships and compatible personalities with people on the farm as part of the process. When unexpressed expectations on how each person in the relationship anticipated relating, there was resultant tension as Lisabeth explained:

I think for me I just wanted to live on a farm and get skills, but for them they wanted more of a social commitment to be part of their family, to engage in meals, and honoring their basis, and I did, with time, I did kind of get used to that. I did a lot of errands and chores and stuff. That's just part of taking care of where you are living, but I think it was a little unclear to me at first when I started that that would be so important to them, that social bonding, because that's not really my style. That's part of the culture, that's part of living in a really rural area on a farm where those are the only people you are going to be in contact with except for your customers or your family and the people you work with on the farm, so it shouldn't have been a surprise to me, but it did take some getting used to.

None of the stories about agreeing to an internship included a discussion about the interpersonal conduct between a farmer and farm intern. Living in a farmer's house, participating in family life and embedding one's social time with the farm crew was not unusual to how an internship was socially organized. For those working on farms with a family, an intern became a member of the farm enterprise. Farmers and interns might have very different or much aligned expectations of how to behave under such circumstances. Based on personalities and individual styles, interpersonal relationships between farmer and intern, and intern and others in the farm community, unfolded differently. Conflict occurred when assumptions about social and lifestyle preferences were not identified and clearly communicated, as was the case with Lisabeth and her host farmers.

4.2.3 Factors that Influence Farm Interns' Choice of Farms

Survey participants tended to rank factors related to on-farm production and educational opportunities as important to choosing their specific internship opportunity (Table 4-7). The factor rated most important to choosing a farm internship was the growing methods of the farm. The role of education (52.3%), the specific products grown on the farm (50.0%) and having a farmer mentor (47.3%) were ranked very important to selecting a training program by half of the survey respondents.

Table 4-7: Survey respondents' rating of internship features for importance

Survey respondents' importance rating (%) of farm features for choosing an internship, US Northeast Region, 2012-2013

Internship Features	Very Important (%)	Important (%)	Somewhat Important (%)	Not important (%)	N/A (%)
Growing methods	77.27	16.67	4.55	0.76	0.76
Educational opportunities	52.27	28.79	13.64	2.27	3.03
Product(s) grown on farm	50.00	32.58	15.15	2.27	-
Farm mentor	47.33	31.30	15.27	2.29	3.82
Farm location	40.91	33.33	18.94	6.82	-
Compensation package	34.09	34.85	23.48	6.06	1.52
Farm community	29.23	35.38	26.92	5.38	3.08
Housing arrangement	28.79	28.79	19.70	13.64	9.09
Reputation of farm	22.31	37.69	26.92	9.23	3.85
Size of operation	18.94	30.30	32.58	18.18	0.00

N=132 respondents

Quality of life and economic factors including compensation (34.1%), living in community (29.2%) and housing (28.2%) were ranked below the top tier that dealt more specifically in farm and education characteristics than personal care factors. Survey participants rated the size of the operation (18.9% said it was very important) lower than the reputation of the farm (22.3% very important category) when considering factors important to choosing their internship or internship.

More than three-quarters (77%) of survey participants said that the production methods of a farm were very important to choosing where they worked. Philosophically, interns aligned their preference to small-scale producers who produced fresh food and directly sold to customers. Farm interns in this study highly valued organic food and, therefore, expected to learn on farms that used organic practices. Kristine speaks to these points when she described searching for a farm:

I guess the premise of looking [for a farm] is the farm is small-scale and not necessarily certified or anything. I knew I wasn't interested in conventional farming through my studies and through values and what not and various things I've learned over the years about production. I knew I was interested in supporting food systems that was supportive of small scale farmers, don't use GMO's, if they're interested in applying chemical fertilizers or pesticides. I didn't want to be physically involved in that, but I also was holding to the values of food that I already had. I was looking for something that would be 'sustainable' and for me at least it starts with some organic practices.

None of the interns who were interviewed in this study or completed farm journals expressed a desire to pursue agricultural jobs with conventional farms that used synthetic chemicals. Based on these responses, a conclusion of this research is that farm interns are seeking a specific training in organic or natural methods as they are applied on specific sustainable farm operations. Moreover, the remuneration given for a farm intern's labor was not ranked as important as other factors. These findings corroborate the qualitative findings of this research that farm interns seek farms for reasons that pertain to the production system and living conditions of the farms, considering the compensation provided for their work as important but supplemental to educational and experiential resources of the farm internship.

4.3 Labor Exchange

The labor exchange explored in this section pertains to the kinds of labor practices that organize sustainable farm internships. This section will include a description, interpretation and analysis of the experiences and perspectives of labor issues that shape the farm internship. The analysis presents how the labor exchange is structured, the work tasks performed by farm interns and the compensation provided to farm interns in exchange for their labor contribution.

The section begins with a description of how the labor agreement is organized, including the hiring process, typical length of farm stay, the number of hours that farm interns work and the structure of the workday, and ends with a discussion of the seasonal nature of farm internships. Establishing the conditions of the labor process early in the section imparts a fuller understanding of the arrangements that compel farm interns to exchange their labor and the challenges that may arise from these conditions. Next, a description of the types of tasks that are performed during farm internships is discussed. The kind of work that interns do depends largely on the food they grow; a brief description of the food cultivated by farm interns is provided. The variation of farm tasks and the intensity of the work while doing these tasks help establish a case for the essential nature of the labor that farm interns provide to meet the production demands of sustainable farms. Finally, the remuneration given to farm interns in exchange for their labor is explained. Farm interns reported on three primary resources that sustained them while working on farms. These are: housing, food and a living stipend. The quality and conditions under which these resources are provided is discussed and implications for the fair treatment of farm interns also examined.

4.3.1 Farm Internship Labor Process

Hiring Farm Interns

Interviews and the hiring process for farm internships were informal and often brief. Routinely, a farm intern would make initial contact over the phone and be invited to visit the farm. During the visit, the farmer would show the potential intern the property, invite him for a meal and have a conversation about the farm's operations and the conditions that might be expected if he were to be an intern. In very few cases did these conversations between farmers and interns include reviewing a contract or determining terms of agreement between the farmer and potential farm intern. In a select number of cases, interns living outside of Pennsylvania committed to the farm before ever arriving or meeting the farmer in person. These phone conversations were simply described as the farmer confirming there was available work and to arrive whenever might be convenient and stay for the time they had available.

Very rarely did interns report signing a formal contract after agreeing to participate in a farm internship. For interns working on private farms, there was a verbal commitment made on the part of the farmer as to the type and amount of compensation offered in exchange for an intern's labor. In an interview, Erin described her visit to the farm and the conversation she had with the farmers at their kitchen as an interview and contract meeting. In her words, "It was the best interview I ever had. It was so relaxed, they roasted some new vegetables and we just talked about basically life in general, and it ended up being the most, it was the best interview basically. That's kind of what I think about when I think about the beginning of my time there." The farmers asked her questions, but when it was time for Erin to ask questions, she faltered, not knowing what to even ask as she was completely unfamiliar to farming and a rural lifestyle. Without a firm agreement in writing, interns were left without a vehicle to regulate the intensity

of the work as it related to working conditions, compensation for extra work and a mechanism to advocate for changing the arrangement if the need arises.

Length of Farm Stay

Many internship positions advertised during the 2012 season on ATTRA were flexible to hosting workers according to the traditional school schedule (summer vacation) and accepted individuals with shorter vacations, denoted by the one to three month time commitment common to ATTRA intern listings. Consequently, the study's sample was drawn from those who worked at least three months on a farm. However, those who wrote farm journals committed to working a longer season from late spring (March or April) to late fall (October or November), and in their reflections they signaled the importance of working the entirety of the growing season to familiarize themselves with tasks undertaken in different weather conditions.

Slightly more than half of the survey participants (52.3%) worked six months to a year on a farm, suggesting that opportunities exist for persons to work for a full growing season and many do (Table 4-8). Nearly a third of survey respondents worked less than six months on a farm. Taking into consideration variable lengths of growing season throughout the Northeast region and Pennsylvania, even the shortest average growing season extends over four months.

Table 4-8: Length of survey respondents' farm internships

Length of time that survey respondents participated in a farm internship, Northeast US, 2012-2013

Length of Internship²	Number of cases	Percentage of sample
Less than 1 month	1	.8
1-3 months	20	15.2
3-5 months	18	13.6
6-12 months	69	52.3
1 year	9	6.8
2 years	6	4.5
3 years+	4	3.0
Other	5	3.8
Total	132	100

Therefore, interns who work a shorter time period of the season were exposed to fewer tasks and skills dependent on day length, plant growth and animal maturity and lifecycles.

The whole range of skills that interns potentially need as future farmers might not be included in their internship considering many farm skills have a seasonal character to them.

Hence, agricultural production is unique in that not all tasks can be performed within a intern's

² An error in survey development created overlapping categories for respondents to report the length of time they spent on farms. Therefore, participants answering the question "For how long was your internship/apprenticeship" may have selected different categories according to their interpretation of the question. Survey respondents who participated in multiple internships were not given opportunity to respond for each internship they held. Instead, they were asked to respond according to the internship most representative of their experience as a farm intern. Therefore "N" represents the number of people who completed the survey, not the number of internships or apprenticeships held by participants.

stay on the farm; the time of the season largely determines what tasks are required of a labor force and what can be learned in the field as it is being practiced. The seasonality of agriculture limits the opportunity to expose interns to particular growing methods and techniques. Under the circumstances that interns had more than one season of experience, they reported doing much of the same work in the second internship. However, during their second internship they reported feeling more proficient at the task (in regards to speed and not needing instruction) and eventually were given greater autonomy (such as when to harvest vegetables or move animals to different pasture). Kristine worked on the same farm two consecutive seasons and described gaps in her knowledge due to limited opportunity to work in particular labor tasks: “There are major gaps in my knowledge about sustainable agriculture because I wasn’t involved in certain aspects of the farm. I never did tractor work and was never involved in choosing which amendments to put on the soil and my knowledge in those areas are very weak because I was never given formal instruction or hand-on instruction on those sort of things.” Farm interns who felt that their internship failed to offer a diverse exposure to farm activities suggested that farmers create opportunities for interns to practice skills apart from their farm labor. Participants who completed more than one internship admonished future interns to commit to an internship early until late in the growing season so that diverse learning opportunities at different points of the growing season would be constituent to their farm work.

Working Hours

The six interns who kept farm journals worked very different schedules. On average, farm interns who kept journals worked eight and half-hours per day, typically beginning at 7:40 in the morning and ending at 5:30pm. This average is greater than the national average for hours worked per day; full-time employed persons in the US spent an average of 7.6 hours per day at

their job in 2011 (Bureau of Labor Statistics 2011). Aden recorded the longest average workday of ten hours and forty-five minutes among farm journal participants, including breaks. Olivia recorded the shortest average workday at just over seven and half hours.

Nearly half (49%) of the survey respondents reported working between forty-one and fifty-nine hours per week during their internship or apprenticeship, with the second highest group of respondents working less than thirty-four hours per week (19%). More than seventeen percent of participants from the survey worked on average more than sixty hours per week, and the fewest number worked between thirty five to forty hours per week (15%).

Work Schedule

Jeremiah's work schedule was the most routine of all farm journal participants; he always began working at 7:30am and ended the day at 5:30pm with a regular hour for lunch. The structure of this schedule was not only systematic, but reflected the farm's managerial approach to the labor process. Each morning the farm crew gathered for a business meeting to determine the day's work and who would be responsible for undertaking each task. Jeremiah reported no events where he was expected to treat personal time as work time nor was there mention of chaotic or unexpected incidents instigated by issues within the farm family that involved the intern during work. Jeremiah was an exception, however; all of the other farm journal interns who lived on the farm recorded variable start and end times with few scheduled breaks and frequent changes due to personal and professional crisis by farm managers or farmers. A notable variation between Jeremiah's circumstances and other interns in the journal phase of this study is the composition of the farm family. Both Andrew and Claire worked for farmers with young or teenage children and lived on the farm property in housing provided by the farm. Whereas, on the farm where Jeremiah worked the farmers' children were grown and no longer living on the property. Andrew and

Claire reported instances when there were direct changes to their daily work due to the farm family's circumstances. In these cases, Andrew and Claire were left to complete work tasks alone under short time frames, instigating high levels of stress due to the lack of help and sudden change in plans. The integration of the farm family into the labor process required greater flexibility on the part of the intern and a more variable schedule due to the changing needs of young children.

Seasonality of Work

It must be noted that average working hours per week reported by participants in the survey likely differed depending on the time of year interns calculated their working hours. The transition of summer to fall that brings colder temperatures, increased rain and less daylight, changes the production system and labor required on farms. Farm interns who kept farm journals during this seasonal transition (September) reported that the change in weather was significant to the schedule they kept and the type of work they completed on farms. At the time of the farm journal study most fieldwork was geared toward maximizing the growth and production of mature plants before colder weather and shorter days killed crops. Interns were consequently harvesting a variety of crops that were at mature stages of growth in variable quantities compared to earlier in the seasons, as plants bearing mature fruit were harvested before frost. Farm journal interns noted taking more breaks during rainy weather conditions or starting later in the field because of darkness during the fall compared to summer season. They were also engaged in different production tasks, which came later in the sequence of field production. Fall crops were harvested for the first time during the farm journal study period, row cover that protects plants from cooler temperatures was laid, and interns removed crop infrastructure such as tomato stakes. These examples of how work changes on farms that were recorded by farm interns in their farm journals

point to the seasonal nature of internships. Emily, who worked on a small vegetable farm, noted this change in a reflection after a day that the farm made preparations in anticipation of losing crops to cold temperatures:

A frost called for this evening, which meant we had to clear out the nightshades. The tomatoes were all pretty much done for but there are about 10-15 lugs each of eggplants and peppers in the barn from the day's harvest. We'd forgotten the hillside peppers even existed so when it came time to harvest them there were a lot of nervous bites taken from mystery peppers in the field to determine which were spicy. Somehow we got it all done.

Farm interns such as Claire, whose work required keeping animals in the barn during cold, winter months was also impacted by the change of seasons. Though the work did not completely stop as it did for vegetable interns working in vegetables, winter signaled a transition in the conditions of her work and the number of daylight hours to complete outside tasks.

4.3.2 Farm Interns' Labor

Food Grown by Farm Interns

The types of tasks performed by interns are determined largely by the production system of the farm where the intern works. Both survey and interview respondents were prompted to report the products grown on the farm where they interned. The majority of survey respondents worked in vegetable crops, with more survey than interview participants listing experiences with animals and dairy production (Table 4-9). These results reflect the types of workplace learning experiences offered on ATTRA that were primarily performing labor in vegetable fields. Of the one hundred and thirty respondents of the survey, over ninety percent had worked as an intern in vegetable production and twenty-four of the twenty five interviewees were vegetable interns. Of

the six farm journalers, only two worked on farms where the majority of work revolved around animal and dairy production.

Table 4-9: Products grown by study participants during a farm internship

Farm products grown and raised on farms where participants worked, US Northeast Region and Pennsylvania, 2012-2013

Instrument	Number of cases	Percentage of sample¹
<i>Survey</i>		
Ornamentals	29	22.0
Dairy	23	17.4
Meat	56	42.4
Fruit	66	50.0
Vegetables	121	91.7
Seeds	17	12.9
Eggs	9	6.8
Other	15	11.4
Total	132	-
<i>Interviews</i>		
Vegetables	24	96.0
Meat	2	8.0
Dairy	4	16.0
Flowers	1	4.0
Total	25	-
<i>Farm Journal</i>		
	1	4.0
Vegetables	4	66.7
Meat	2	33.3
Dairy	1	16.7
Herbs and Flowers	1	16.7
Total	6	-

¹Percentage does not add to 100 since respondents were given option to choose more than one product

Variation in Tasks

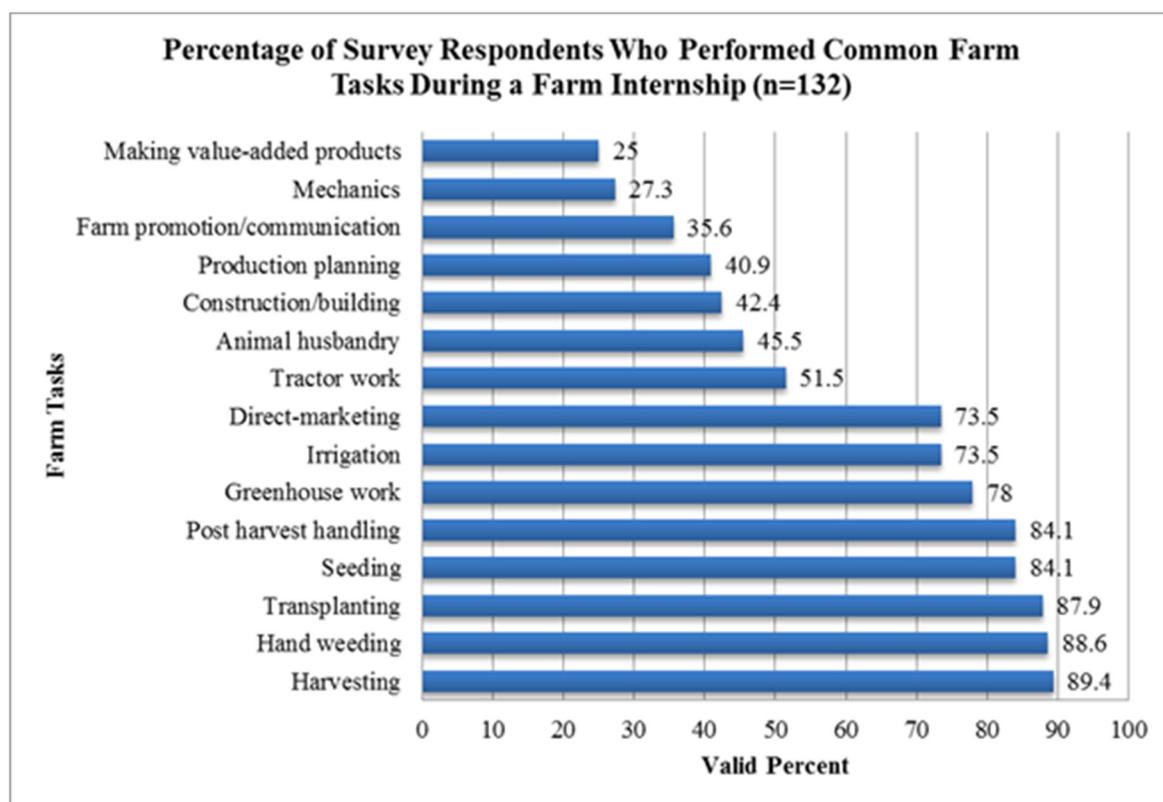
The opportunity to work in a variety of tasks and thus, experience different aspects of farm production, purportedly distinguishes farm interns from hired farm labor. Unlike conventional crop operations that specialize in one or few crops, farm interns expect to work in a diverse farming system that requires being familiar with production and marketing techniques. The differing models of on-farm training programs in the Northeast region offer most or all of the following training components for a well-rounded internship in specialty crops: 1) production planning; 2) nutrient and soil management; 3) weed and pest management; 4) direct marketing strategies and systems; 5) infrastructure management; 6) harvest and post-harvest handling of crops; and 7) sustainable farming methods.

Survey respondents were asked to report the work expected of them during their internship on a farm. The task performed by the largest number of farm interns was harvesting; nearly ninety percent of survey respondents had harvested a crop during their internship(s) (Figure 4-2). Hand weeding, transplanting, post-harvest handling and seeding were four tasks completed by more than eighty percent of participants. Crops such as vegetables, fruits and nuts are considered labor intensive and require a large labor force or special mechanization for harvesting (Kandel 2008). There are prohibitive costs to transitioning to mechanized harvesting and organic farms do not use chemical applications. These tasks therefore, constitute the most common work on farms reliant on a human labor force.

The remainder of the tasks on the survey received varied levels of responses. Due to the design of the survey, it is impossible to determine whether the low responses to some work activities can be attributed to farms where these tasks would not be performed. Not all farms use machines or have animals, thus there would be no opportunity to do machine work or animal

husbandry. Fewer farm interns from the survey were introduced to activities that might be performed by a manager or demand a higher skill level to complete successfully (such as tractor work, of which only half of participants indicated they had performed on farms).

Figure 4-2



Twenty-two of twenty-three of the tasks listed in the survey were performed by at least one farm journal participant (greenhouse management was the exception, which tends to be a spring, rather than fall activity on farms when the journals were recorded.) Table 4-10 shows the proportion of tasks journalers completed in ranked order according to the most frequently performed. For those working in crops, harvesting was repeated the most over the fourteen days that interns kept journals. Fieldwork corresponded to tasks that involved field labor but did not

correspond to the web categories, such as covering crops with cloth to protect plants from cold weather.

Table 4-10: Most common farm tasks performed by farm journal participants

Top three farm tasks performed by farm journal participants during fourteen consecutive work days, Pennsylvania, 2012

Rank	Farm Task	Percent of total tasks performed
1	Harvesting	30%
2	Post Harvest Handling	19%
3	Field Work	7%

N = 6

The participants in the farm journal study with the most variability of tasks consistently performed the most tasks in a single day. Naomi, who worked on a vegetable CSA with another intern and farm manager, cited both the slower pace of the work at the time of the study and her long-standing involvement in other parts of the farm operation as opportunity to cultivate a variety of skills. Nicole completed more tasks and a higher variety of these tasks by taking on special projects (building a latrine) and contributing to non-manual labor responsibilities (weekly communication with CSA members). Andrew, on the other hand, performed the fewest tasks with the least amount of variability. The nature of his work required both time intensive jobs such as butchering, meat packaging and daily “chores” that Andrew counted as one activity but presumably included multiple responsibilities with different animals. The farmers structured Andrew’s internship so that each week he was given a new assignment that focused on a particular aspect of the farm enterprise. Overall, interns on vegetable farms completed more tasks

across a spectrum of work activities on the farm partially due to how they reported the work they performed (tasks were delineated by those working in crops as planting, weeding etc., but this was not the case for the two interns working with animals who reported “chores” but not the actual work performed), but also the production methods and labor demands of the farm.

Participants in the study were not asked directly the number of laborers present nor roles that others played on the farm where they worked. However, this information was woven, if incompletely at least relevantly, in their descriptions of work and relationships on the farm. Apposite to the interns' working experience was the lack of sufficient labor on the farm for the work needing to be completed. The excessive hours and intensity of the work that interns reported certainly had varying and complex sources. But the sense of being overwhelmed and certain that with more people the work would not be so difficult or consuming, permeated descriptions of the work culture experienced by interns.

The person telling the story in this study was never the one who claimed to work the hardest to make up for too few hands on a farm. Rare was the account of an intern suggesting that she worked more hours or days than a farmer. Farm interns often spoke with reverence for the farmer's ability to provide the majority of labor on the farm year-round. The slower pace and intensity of how a farm intern worked in the field compared to an experienced farmer, distinguished the intern as a novice. Based on the interviews it was clear to farm interns who had no intention of becoming farmers that finding a willing labor force to grow food at scale for other people would be difficult. Based on their experiences of the physical and emotional energy required to make farming a viable livelihood, they postulated that few people could be farmers due to the physical, time and emotional demands on the individual. For this group of interns, enthusiasm about sustainable food and alternative food systems had not waned, nor their interest in growing food for themselves. But they were incapable or unwilling to become part of the sustainable agricultural labor force working in the field. Reasons that interns gave for not

continuing to work in sustainable farming included the physical demands of the work, the financial risks and sacrifices as a non-landed farm worker, having other interests and skills that were unrelated to farm work, and skepticism that farming could provide for their financial needs without having to sacrifice their desired quality of life.

Table 4-11: Remuneration received by survey and interview participants during a farm internship

Remuneration that survey and interview respondents received in exchange for labor on sustainable farms, US Northeast Region and Pennsylvania, 2012-2013

Type of Remuneration	Survey (%)	Interview (%)
Food	85.6	100.0
Housing	67.4	60.9
Stipend	62.1	69.6
Hourly Wage	27.3	8.7
Educational Classes	30.3	N/A*
On-farm training	68.9	N/A*
Number of cases	132	23

*interview participants were not asked to report whether education and on-farm training were included in their remuneration package

4.3.3 Remuneration – Sustaining Interns on Farms

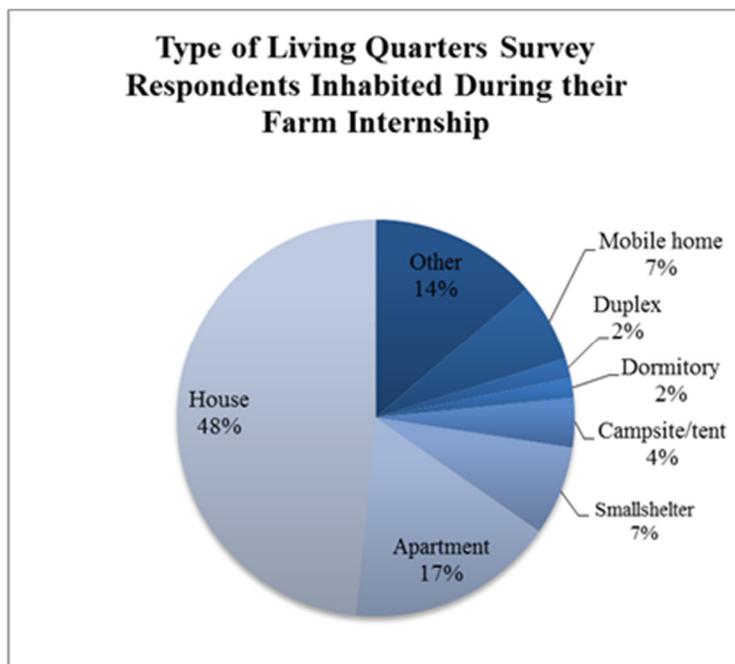
Farm internship remuneration is composed of a trio of basic resources in addition to promised training and education. These were housing, food and living stipend. Interns received these three resources in different combinations based on the circumstances of the farm and needs of the intern. All of the interview participants, and eighty five percent of survey respondents received food as compensation for their labor. More than half, but still fewer farm interns received housing and a stipend during a farm internship. These results can be found in Table 4-11. Each of these

forms of remuneration will be discussed in relation to the how they were provided to interns and the influence that the quality and quantity of these resources had on the experience of interns working on sustainable farms.

Housing

Provided housing is an historic feature of apprenticeships (Rorabaugh 1998). Traditionally, a master tradesman supplied room and board usually in the family home. This tradition continues in sustainable agriculture, particularly farms that host farm interns in rural areas. All of the participants interviewed who worked on urban farms maintained an independent residence, as farms and gardens did not have on-site living quarters and interns lived in the city where the farm was located.

Figure 4-3



For interns who relocated to work on farms in rural areas they agreed to let farmers arrange and if necessary, pay for housing, either on-site or near the farm. Such arrangements differed considerably in the type of structure and amenities provided in the dwellings. The majority of survey participants lived in homes (48%); thirteen percent of survey participants lived in types of housing that traditionally are smaller that included tents, a dormitory and small shelter such as an earthen hut (Figure 4-3).

Survey and interview participants reported that in extreme cases farm dwellings did not have private or accessible bathrooms and kitchens. In these situations, farm interns were forced to either build their own facilities or manage without. In her Journal, Nicole described building a privy for the farm intern house that she shared with another intern:

Let the fall project begin! Howard (other intern) and I designed a privy that we are building along the side of "Sunshine", where we live. We've been using another privy a small walk away and it's the same privy that is used when the public is here for projects, tropics, meetings etc. So Howard and I ended up having to clean up other people's mess - quite literally. We want to build this so not only will that responsibility not be handed to us, but also so it's closer and much more private. We realize we won't be here for more than a couple of months but we want to leave it for future interns to have while they're here. We had fun digging the holes this morning - it's the first time I've ever dug holes this deep, very rewarding.

The account that Nicole provides of building a privy demonstrates her positive assessment of the novelty of living simply and taking responsibility for meeting her own needs while on a farm. However, the living situation is inadequate, despite her enthusiasm for gaining new skill through the circumstances. Not having a private and functional bathroom in the living quarters puts into question the fairness of the remuneration provided to Nicole for her labor, and the treatment of temporary interns on the farm where she lived and worked.

Considering that shelter is a basic human right and fundamental to well-being, interns used varying standards to assess the adequacy of provided housing. The general expectation was that it was functional (a place to sleep and cook) rather than comfortable or appealing. These

needs dealt both in the physical dimensions of the space as well as interpersonal relations between those with whom they shared housing. Interns who were provided separate housing lived in a private bedroom with common areas that included a kitchen and bathroom. As one former intern described her circumstances:

A garage was converted to tiny little rooms with a lofted bed and just enough room for a desk and dresser below. This really suited my desires to not share a bedroom. I was 30 at the time, and the idea of sleeping publicly was just very unappealing. We had communal kitchen and bathroom facilities. There were multiple bathrooms so that was not much of a problem. The kitchen was very small, cramped, dark, and as such perpetually dirty. This was compounded by so much of the after work activity consisting of preserving the bounty, so often all 5 of us were squished in this tiny dank kitchen trying to work around. We took communal lunches, which relieved some of the kitchen pressure as on a given weekday at midday only one person would be in the kitchen.

Interns who had poor experiences sharing housing and those with positive experiences living alone made a strong argument that private housing was good for the social and emotional health of interns. As one respondent recalled, "During one apprenticeship I had my own room in the farmer's house. For the most part this was fine, but I think ideally apprentices and farmers need their own spaces, as they spend so much time together doing intense work, and need to have some distance to decompress."

Though living on the farm and with other farm workers resulted in little personal space or time away from work companions and the work, farm interns listed advantages to these housing arrangements, as well. Living with other interns or farmers fostered close friendships; some interns learned important life skills from sharing a house with an older or more experienced cook, for example. Claire felt included as one of the family and participated in activities that helped maintain family life, in this way she felt cared for as a person, not simply treated as a laborer. Leslie described learning important interpersonal skills such as negotiating cleaning schedules, feeding groups of people good food, and finding ways to have her personal needs met in

community. Learning and adopting the farm lifestyle and being integrated into the farm community were important outcomes of living on the farm and with others on the farm crew.

For interns like Alexandra, who moved to a new area to work as an intern, the agreement she and the farmer reached before she arrived included few details on the physical conditions of where she would live. The poor financial state of the farm and inability of the farmers to secure permanent housing caused Margaret to move three times during her internship, which included sharing a two bedroom apartment with the farmer, his wife and two infant children. Elyse experienced similar housing difficulty when placed with a friend of the farmer who expected that she attend to yard work to earn her board after a full day's work at the farm. While adjusting to living with complete strangers, her bedroom opened to a common space used by the woman's son who kept late hours watching television. But because Elyse had moved to the farm from a different state, enjoyed her internship and wanted to continue, was earning no money with which she could pay rent, and was not the primary person who made the arrangement, she felt left with few options but to stay and change her living circumstances after the farming season. In these cases, dependence on the farmer for housing left interns vulnerable to unstable and distressing living environments and without significant social or economic power to alter their housing situation. These situations were made worse when farmers struggled economically and depended on limited resources at their immediate disposal to house interns while expecting interns to be flexible to what housing was made available regardless of the condition.

Common to nearly all stories about deficient housing during farm internships was the limited time that interns anticipated enduring the situation. Many of the primitive shelters offered to interns were not weatherproof and were poorly insulated, thereby failing to protect human inhabitants from extreme heat or cold when necessary. A description of these conditions from a former intern writing on the survey whether the housing provided was adequate during her internship, illustrated it this way:

We had outdoor kitchen, outhouse, and scattered tents and pop-up trailers around the property. Our situation worked okay in spring and summer, but not in late fall (very cold). Also it was challenging having NO real indoor space to relax or shelter from strong rain, etc. By fall the living situation did take a toll on our capacity for work.

Interns who anticipated leaving the farm at the end of the season were therefore less concerned with having to endure poor housing indefinitely. Regardless, harsh living conditions had an effect on the intern's state of well-being while laboring on a farm.

Food

Without exception, farm interns were provided food grown on the farm as reward for their labor. For those interns depending on the farm for their essential needs, food was a necessary subsidy that supported an intern's livelihood while they forfeited a standard income. Eating the farm's sustainably grown food was also valued for its importance to the intern's lifestyle choices. The themes of generosity and abundance dominated conversations about farmers who provided interns food, as was the case with Leanne's experience at a small urban farm:

She [the farmer] was very generous with the food. This whole summer up until today included . . . my fridge is full of amazing food. So what she could give, she gave generously. It wasn't just take the same items of fresh CSA that the customers did, we got so much more and after market she'd be like take this, take this! What she could give, she gave, and then some. I never felt like she's holding out on me.

As a result, interns reported purchasing little food off-farm and thereby reduced their expenditures, which supported their efforts to live within their means if reliant on a stipend.

How food was allocated to interns varied according to farm. Some interns received food in the form of a CSA share. As Leanne explained above, she earned a quantity of vegetables on a regular basis. When eating farm produce at free will, interns and farmers would preference "seconds" or food that was deemed unsuitable for sale before taking produce that could be

marketed and potentially profitable for the farm enterprise. Yet, interns who reported eating seconds also said they were allowed to eat while harvesting vegetables or fruit, had the first opportunity to try new products, or picked fresh produce or special farm items when they wanted.

Such was the case for Margaret:

It's a meat farm so we had access to anything that the seal didn't work in the freezer, or it was old or ugly. It was for the staff, it was a home meat pile is what we called it. And so I had access to all this meat and I wasn't getting paid so I wasn't going out and buying things for myself and you burn so many calories while out in the heat doing so much manual labor like that. Every morning it was like two eggs, sausages and bread if we had it. And the mornings you want to sleep in late and grab an apple, you don't make it until lunch.

Food as compensation for hard work functioned therefore, not only to reduce an intern's financial costs but also supported their health while engaged in hard, physical labor.

Stipend

The ability of farm interns to work without pay is an important factor in regards to who can participate in farm internships. The small living stipend provided to farm interns in this study was often adequate to meet basic needs, but not enough to sustain an intern financially over long periods of time. Even for those who could make a salary sacrifice to participate in a farm internship, the decision required that farm interns draw on money saved prior to the internship; farm interns also benefited from the support of family members and made notable changes in their consumption patterns to be financially solvent during an internship. The study's participants considered these strategies not permanent livelihood strategies, but necessary in their pursuit of sustainable agricultural training. However, the financial risk of farm internships were considered a potential economic threat to the future success of those wishing to operate their own farms.

Farm interns justified being cheap labor for reasons related to personal attributes and their social values. Firstly, many considered themselves unskilled and therefore less efficient at

the tasks they were assigned. As interns' skill level and ability to take on more responsibility increased, so too did the expectation for being paid for their hard work. But in the transition from novice to becoming more proficient farmworkers, being paid while making mistakes and working at a pace much slower than the farmer was deemed inappropriate. Secondly, there were interns in this study who saw their work as an extension of the sacrifices that farmers were making to grow good food in a cheap food economy. Therefore, the rewards of contributing to the social movement aimed at changing the conventional food system justified a sacrifice in pay. And lastly, the alternative (mostly non-monetary) benefits interns received from the work were assessed for their value and often were as more or equally important as financial compensation. It may be, however, that interns could be paid and still receive these benefits, a possibility offered by the interns who participated in this research.

An exchange which circumvented paid wages seemed to work best for the intern if there was a personal investment made not only based on the educational and financial outcome of the work, but within the personal exchanges that were part of the daily experience of working on the farm. Leslie makes this point when she warns future interns that:

If you're there just to hang out and have nothing better to do, you might want to think about the type of farm where you're going to. If it's a farm where they have very limited help, they aren't paying, it's probably because they need to produce a lot, so think about where you're going and how motivated you are to be there. How badly they need people, get to know the farmer before you go out there.

The farm that needs the most help and can pay the least is going to be a farm where an intern must be motivated to do hard work for reasons other than the material reward given by the farmer. If an intern is not interested in the work or invested in the relationships established with the farm community, then the incentive of housing and food appear too weak to motivate the intern's labor. What is striking is that no one in this study related money as an incentive to work harder, better, faster, or longer.

None of the justifications given by farm interns for taking a salary sacrifice negated the interns' belief that their demanding work deserved good pay. The irony not lost in the stories of sixteen hour days, digging their own latrines, chasing pigs in the woods or harvesting tons (literally) of vegetables was that interns were doing the hardest work of their life and receiving the least amount of money that many had ever received for their work. Aden expressed this by iterating:

I'm not going to make a million dollars from farming, but it's worth it. I have a college degree; I make \$800 a month. It's weird how the outside world kind of casts that as a bad thing, but when I look at my life and I look at other people's and granted this is what I chose, someone may have something else they love to do. I know that I love to do this so it's definitely worth it. I'm getting enough to keep me happy and thriving and excited about each day.

Interns, such as Leslie, who were poorly compensated during an internship advocated for higher pay on the premise that it was not only fair, but also owed to interns who contributed essential labor to sustainable farms

Resoundingly, participants in this study concluded that farm internships were only financially sustainable for a temporary period of time and limited to those persons with financial resources to sustain themselves while absent from the formal workforce. Interns who held college degree referred to potential job opportunities in a different occupation to supplement a farm income or leave agriculture entirely. A former apprentice who completed a survey and specified the reason that the compensation she received was fair saying, "I have a college degree and was being paid about 5\$/hr. plus food and education. It worked for me because I wanted to learn, had housing taken care of, and am single with no children. I also know how to live off of very little." An important factor in the feasibility of this sacrifice was the intern's age. Many young people directly out of college reported few financial responsibilities that required earning a salary (such as a house payment, daycare for children or private medical insurance after aging out of coverage through their families). Older respondents of the survey who had interned or apprenticed in the

past were resolute that under their current conditions, having partners, children and/or a more routine lifestyle, created pressing financial needs, which would make it difficult to be financially solvent with a typical intern stipend. During the internship, both former and current farm interns used strategies that limited their reliance on capital. Farm interns adopted a philosophy that rejected consumer culture, thereby fostering a desire to be more self-sufficient and reliant on what they grew on the farm. Extra money for leisure and comfort was reported to be not as needed during a farm internship due to the circumstances of working in a rural setting with few options to spend money on social activities.

Though interns utilized their social and economic resources to remove themselves from the labor market for a short period of time, not all financial obligations could be removed from a farm intern's life. Participants who recently graduated from a college or university reported making a salary sacrifice by temporarily reducing expenditures, but one inflexible expense common among this demographic were student loans. Farm interns described varying strategies to pay these loans while interning; the two most common were drawing from a savings account to cover monthly payments and also using their grace period to work on farms and then exited agriculture for jobs in their academic fields. A compounding factor to these strategies was an intern's ability to find a job in her or his field. A farm internship that covered basic living expenses was considered a meaningful way to spend one's time out of the job market. Margaret, for example doubted the prospects of securing a professional opportunity in a poor job market as a new graduate. The time on the farm offered a transition from school to the working world; she anticipated job searching and leaving the farm for a better paying position after the farming season. In the interim, she considered her farm internship a valuable way to spend a few months learning skills. Unfortunately, the demands of the internship consumed extra time and energy she anticipated using to look for jobs. At the end of the season, Margaret was in no better position to enter the job market than when she started the internship, but now her loan payments were due.

Farm interns who encountered few job opportunities in their fields of study indicated that the poor job market prompted farmers (and other sectors) to take advantage of the influx of people searching for work.

Overtime Work Hours and Compensation

Those farms without adequate labor relied on interns who then were cast as an integral member of the farm crew. Without adhering to formal work schedules or accountable to external agencies to pay overtime or give breaks, interns felt pressured to work the extraordinary hours kept by their bosses. However, farm interns did not receive additional rewards for additional work. The type of remuneration provided during internships made it difficult to increase what farm interns received if they contributed more labor than was originally agreed. A farm intern only needed one place to stay and a certain amount of food.. Working additional hours was not an uncommon practice during farm internship. A survey respondent described the difficulty of working for the same remuneration saying: “Based on the theoretical hours we are ‘contracted’ to work, the stipend is adequate. However, I definitely feel as though some weeks/months, the number of hours I worked far exceeded what was appropriate for my compensation--even when considering other benefits such as housing and food that are provided through the internship.” The only benefits that might increase were opportunities to learn more about farming from performing ancillary tasks or receiving additional instruction during extra working hours. But there was no consistent pattern that could be derived from interns' reflections that more work equates to better learning opportunities or increased competency and skill.

The economic reality of paying farm interns is that farmers operate in an economic system that disadvantages family farm enterprises that grow and sell produce outside the conventional agricultural system. Farm interns acknowledged that the low wages and small profit

margins on family farms encouraged management decisions that minimize the amount spent on labor, including the farmer's salary: "The compensation was adequate considering the education and training I received. Also, knowing the financial situation of the farm made me feel like I got as much as they could give." The expectation that one would not receive a waged salary as a farm intern suggests both structural (the constraints of the price of food produced in the conventional food system not adequate to pay farmers well for their work) and socially constructed elements of inequalities deeply rooted in agriculture (the socially marginalized role of farm work and workers, and perception of what is owed to whom for such work). Farm interns recognized the limitations placed on farmers by an American public conditioned to cheap food. Farmers who "made it their goal" (quote from a survey respondent applauding her boss for paying workers a living wage) to pay farm interns a decent wage were characterized not only as admirable, but unique.

Leisure

Interns that kept journals and those who were interviewed for this study reported they had at least one day during the week designated as a vacation day. Of the six journal participants, four of these farm interns recorded having two consistent days off over the weekend. Delineating between work and leisure time for those living on the farm was not always straightforward. Even on her days off, Claire would complete regular farm chores or help around the family house. Though instructed to only include days she spent working on the farm (denoted by four hours of farm work), Claire reported two of her days off during which she spent time milking, tending to animals and cleaning house.

The quality of time spent not laboring on the farm was related to the living environment provided to interns residing on the farm. Living in the farmer's home allowed Claire access to a

family life to which she enjoyed contributing, particularly to house work as it was low priority for the farmer but important to her personal lifestyle. However, Claire concluded that the lack of organization and family demands on the farm was cause for her erratic schedule and little time to herself. Bianca spoke to this issue in her interview when she commented that her days off were dedicated to catching up on personal activities such as laundry and talking to family members, but that it was hard to step away knowing others continued to labor. For both women who lived on a farm in a rural area, their day of leisure was spent on the farm and therefore, the shared space that interns occupied with the farm family or work crew allowed little respite from the demands of the farm work. Interns such as Pete and Amanda, who worked on urban farms and kept separate residences, reported little change to their social life as a result of their internship. Though they suggested that they were tired after a day's work in the fields, they could then leave the farm and retain their own social schedule and personal time without being on the farm and accountable to work demands.

4.4 Learning Exchange

The inherent conjunction between work and education is elemental to how farm internship programs are described by interns. The investment in this training by farmers is largely structured around the amount of education that accompanies the performance of tasks on the farm, time spent in educating the intern apart from the work, and the opportunity provided by the farmer for additional training at outside venues that might not be available if the person was not an intern or apprentice.

Mode of Learning

Manuals describing on-farm internships in sustainable agriculture identified common modalities through which learning occurs during farm internships. In an open-ended question, participants on the survey were asked to report the number of times that they received instruction via each of these modes of arranged instruction. Half (49.6%) of survey participants reported that while a farm intern, they did not attend an on-farm class (Figure 4-4). Of those who did attend an on-farm class, most took part in only one class (13%) followed by those who attended two classes (11%). Compared to on-farm classes, a third (32.7%) of participants said they never attended a class offered off the farm. Another third attended at least one class off the farm, and nearly another third were participants at more than four off-farm classes (Figure 4-4). Close to fifty percent of farm interns never attended a regional field day workshop or multiple day workshop (Figure 4-5). Fewer interns participated in multiple-day workshops than other modes of instruction (59.6% said they did not attend such a workshop) and of those who did participate, the majority (27.3%) attended only one such workshop. Taking time away from the farm, the cost associated with attendance and infrequent offering of such a multi-day events might be contributing factors to why this method of learning was least attended.

Figure 4-4

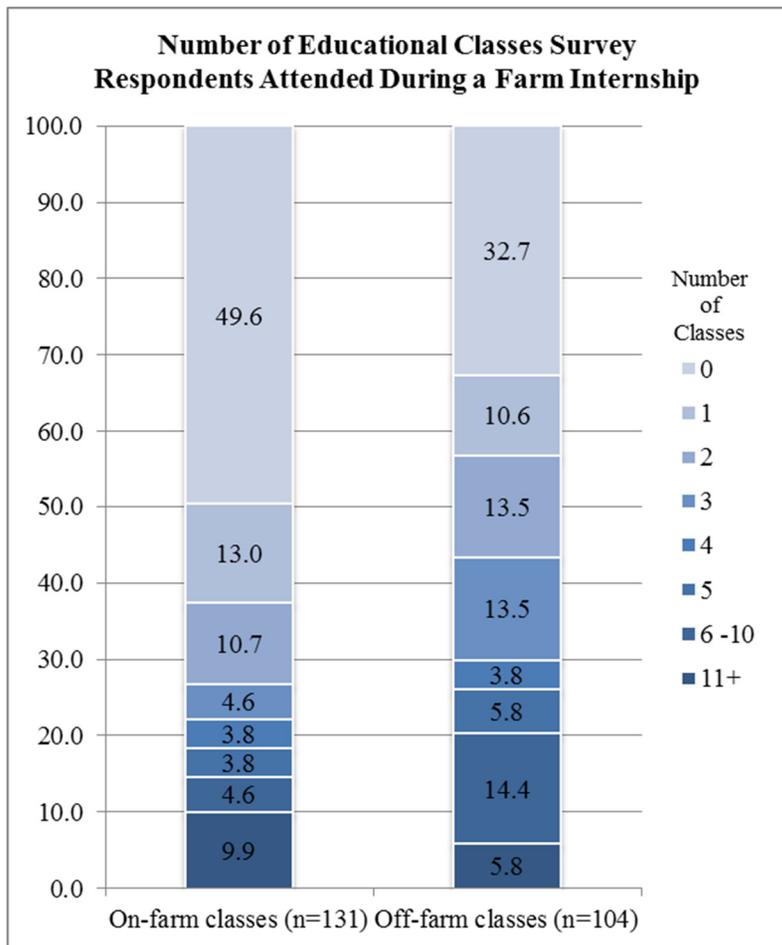
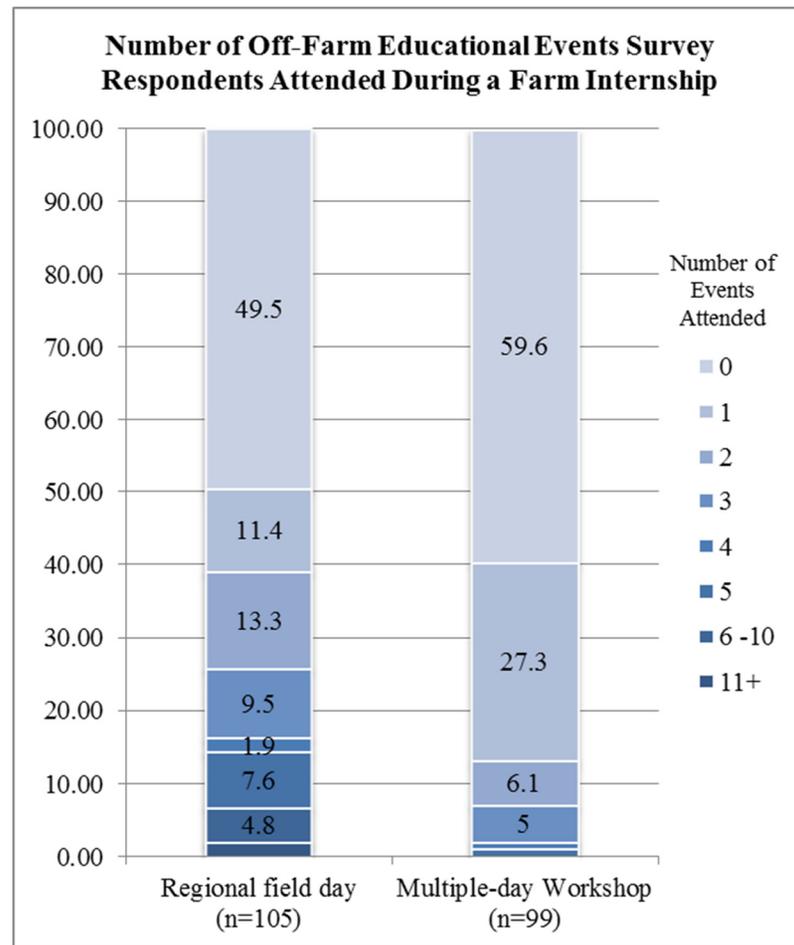


Figure 4-5



Instructed on Sustainable Farm Topics

Farmers who host interns have a responsibility to instruct and not simply manage the labor of farm interns (Mills-Nova, 2008; Smith 1999). A section of the survey measured the frequency with which farm interns were instructed on labor tasks.. The majority of interns reported receiving “a little instruction” on tasks dealing with farm planning (Figure 4-6) and “regular instruction” on topics that pertain to nutrient and soil management (Figure 4-7). Farm interns received the least instruction on topics that did not involve manual labor on farms. For example, the majority of farm interns in the survey received minimal instruction on integrated pest management³ (39.2%) but regularly were instructed on weed management (41.1%; Figure 4-8). Similarly, on topics related to handling the harvest, over forty percent (42.6%) of survey participants were instructed “a little” on food quality and safety topics and a third were instructed regularly (36.9%) or intensively (27.7%) on harvest and post-harvest handling techniques (Figure 4-9). These findings suggest that farm interns are more likely to be taught on topics that involve the work they are assigned during their internship. The following discussion draws on interview and farm journal data to discuss how labor is substituted for learning during farm internships.

³ Integrated Pest Management is not necessarily only an organic practice and may not be practical for farms that hosted interns. This is a pertinent example of how future studies would be wise to delineate the types of tasks performed on farms to determine the kind of work that farms interns may be trained to complete.

Figure 4-6

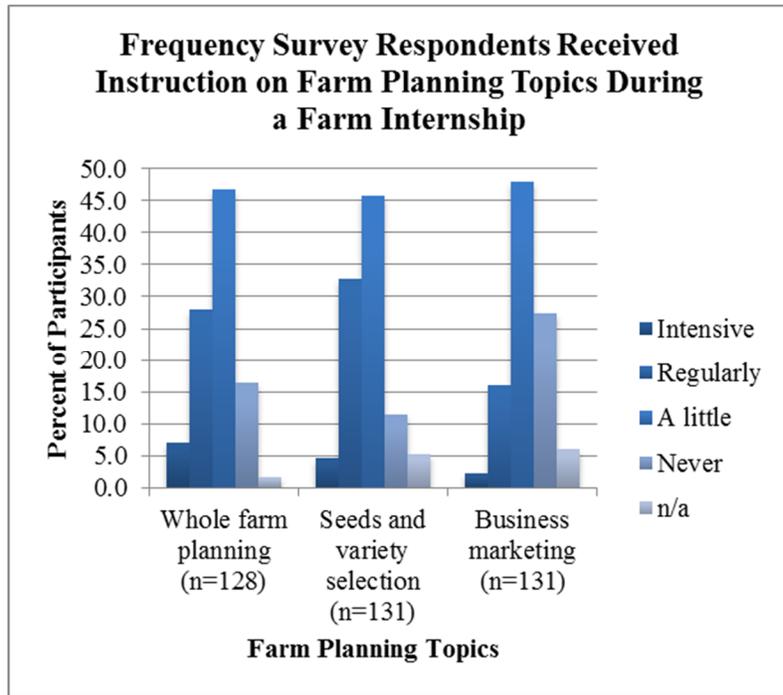


Figure 4-7

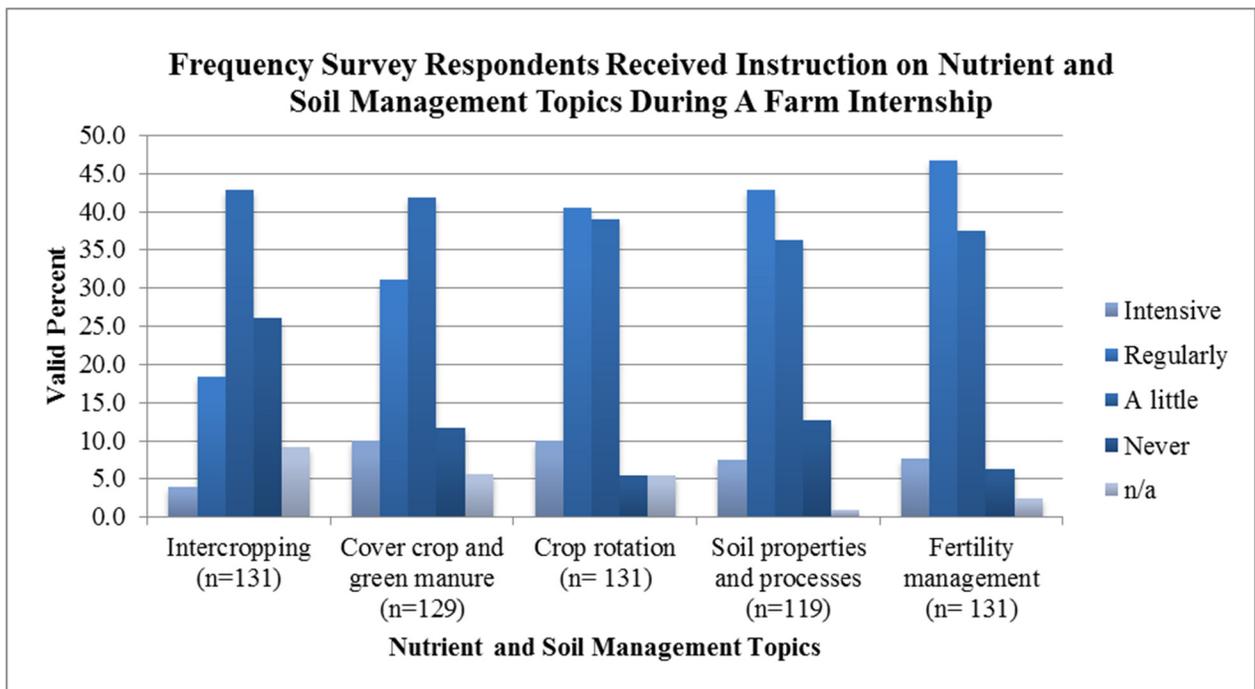


Figure 4-8

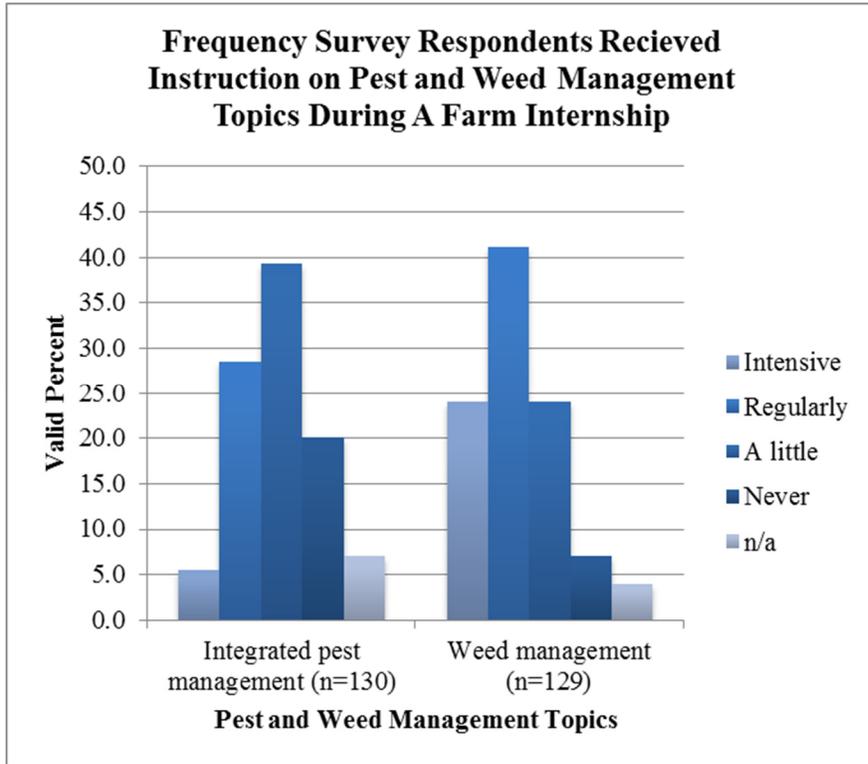
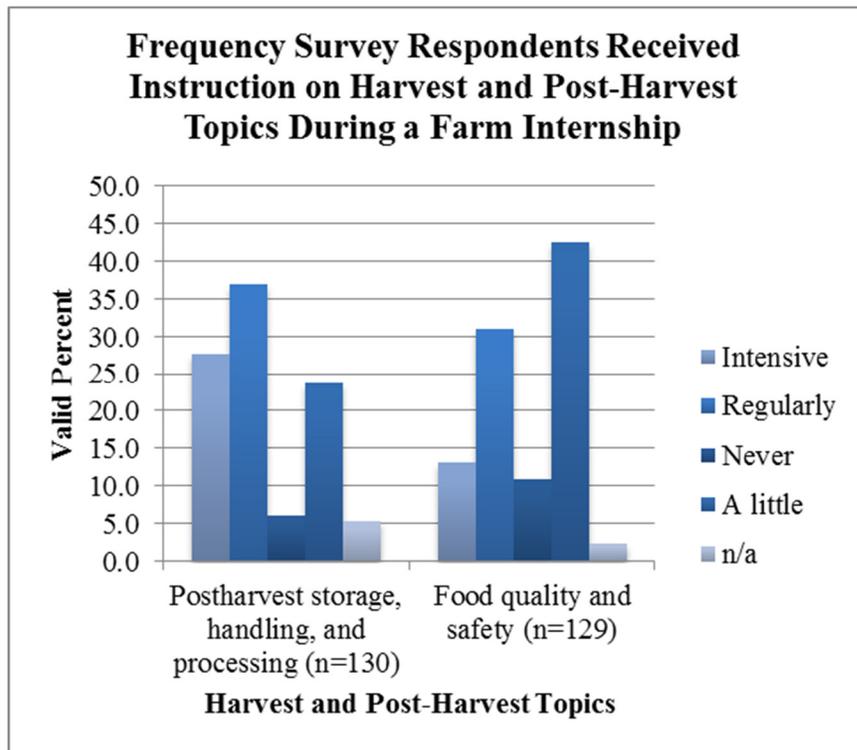


Figure 4-9



Learn-by-Laboring

Interns in the study were motivated to pursue an on-farm learning experience for the advantages they associated with learning-by-doing. Many of these interns juxtaposed their former education at formal institutions with their internship as not only a difference in learning style, but also a radical change in their acquisition of content. Through repetition and mistakes, sustainable farm practices were transmitted in a practical context and reinforced through practice. Considering that farming methods employed are dependent on numerous site-specific factors, there was general agreement among respondents that being able to see how a practice worked in the field and how a farmer made a decision based on the context was primary to the intern experience. Interns in the survey who continued to farm after their internship reflected that without the ability to apply what they were learning while acquiring new skills and knowledge, the transition into full-time farming would have been very difficult.

This method of workplace training was described as a contrast to the kinds of educational instruction that participants received prior to their farm internship. The emphasis on workplace learning during internships was appealing to participants for its perceived efficacy in mastering agricultural skills. But the transition from classroom to field did not come without difficulty, observed Janelle:

Farming's the type of work where you're always learning everything. So I've definitely learned a lot of day-to-day tasks and how to hoe effectively, and things like that and like walk behind a tiller, the manual aspect of it. But then I also have this growing sense of a farm organism. Plant knowledge, figuring that out, which can be a lot of information to retain and has challenged my memory skills a lot, because I'm so used to a classroom setting or when information is being thrown at me to be taking notes and to have all this, like this plant likes it this way because it's this and this, and this is going on, and all of the conversation happening while you're working is definitely a challenge.

Nevertheless, sitting at a desk, staring at a computer, reading the duration of the day - all of these images were used by participants to describe the appeal of hands-on-learning as a contrast to classroom instruction. Farm interns highly valued actively participating in farm tasks outside in nature with other people, compared to formal educational settings.

Learn-by-Necessity

Learn-by-doing for farm interns was also learn-by-necessity; to perform one's job required familiarity with skills and being able to perform them when called upon. Often, the nature of farm work dictated that an intern perform one task that required applying a set of skills recurrently over a period of time. Margaret recounted that the work that needed to be done on the farm became her course of study and learning was reinforced through repetition:

It definitely wasn't a curriculum or planned, whatever skill I needed to learn was taught to me when I need to know it and it was used for the entirety that it needed to be used on the farm. Like fencing started in July and we did a lot of it through August until we started worrying about turkeys for Thanksgiving. For that month and half I knew how to fence. I was told how to fence and I did it with him [the farmer] a few times and I did it by myself a lot and then there was something else to do. There was not a curriculum; technically, he called it an apprenticeship. I was under the impression, and he told me . . . well it wasn't totally clear as to how unorganized it was. It wasn't unorganized they were just getting started. It wasn't like: this is what I'm going to teach you today. I don't know if that's what I thought would happen, or if that was just already what I had in my mind as to the way things would happen. But I guess, I liked it better that way. I always learned best that way; I learn when you show me, I learn hands on and that was very very hands on. All of it.

The educational component of Margaret's experience remained strictly contained to what she did on the farm, the instruction provided to her on how to do a job, and how many times she had the opportunity to perform those tasks.

Independent Learners

If a farmer did not offer instruction or supervise farm tasks, farm interns were compelled to problem solve and ascertain how to perform a task independently to complete their job. This process for interns was associated with both a high level of frustration and if a task was ultimately performed successfully, satisfaction. A benefit of farm work mentioned by interns included the thrill of being challenged and obtaining self-confidence in their ability to be critical thinkers and creative problem solvers. Accompanying the gratification of overcoming a challenge came displeasure that the path to this accomplishment was made difficult by the absence of instruction from a knowledgeable farm mentor. Leslie recalled the circumstances she was placed in at a small family-run farm where she committed to an internship after having worked at two farms during prior growing seasons. The farmer was pregnant unbeknownst to Leslie when she took the internship and the farm understaffed for the season, making the workload heavy and learning opportunities with the farmer rare: “It was really frustrating in that I wasn't doing as much learning from her as it was figuring it out. Which is beneficial as well, that's a great gift to have access to a farm and to figure things out and to learn a lot. But it was me teaching myself because I had to figure stuff out.” Farm interns who worked with farm mentors who were difficult to access reported being happy to take charge of critical tasks and find solutions to problems that helped them perform their job better. But such satisfaction was couched in frustration that the farmer did not meet their promise of providing instruction and mentoring during the labor process. Farm interns did not consider circumstances where excessive labor prevented structured learning opportunities as a violation of their agreement with farmers. Those participants who reported working long hours without independent time for instruction rationalized that the necessity of their labor to meet the farm's production demands left little or no time for other activities. Such a commitment to the farm's production success at the expense of training or

education proceeds from the personal relationship established with the farmer and the importance of the intern to completing the farm work. However, though this circumstance was not acceptable to farm interns, it was expected on farms where labor supply was short and workload high.

Labor as Farm Mentor

Interns who bemoaned the lack of intentional instruction during their internship suggested that farm supervisors relied on labor as a learning tool to be relinquished of the responsibility to provide constructive teaching. Though many interns expressed concern that their knowledge and skill acquisition was not sufficient and hence incomplete after their internship, few suggested that having an opportunity to learn in a classroom setting or structured lectures would be an appealing solution to increasing their understanding of growing methods or skills. Instead, more direct contact with the farmer who could explain the particular subject matter in the field, or having other farm experiences with greater exposure to tasks and different farmers, were suggested recourses to a lack of learning during the internship. Albert, who worked two full seasons on his University's farm upon graduation, spoke to the effectiveness of these methods when describing his farm mentors who willfully built education into the farm intern's experience, "From them [farm managers], I was able to pick up a lot of skills. They were very focused on education, this is primarily an educational farm so they were really focused on teaching me and answering my questions and responding critically to my work, but then also setting me up for success, showing me how to do what I wanted to do so that I could go out and do it well and not screw up and then have to learn by trial and error from my own mistakes."

Being instructed while laboring was said to slow production, but nevertheless the strategy emerged as the most effective learning method for interns. Farmers who were characterized as overextended and task oriented resisted constant questions by keeping answers to farm interns'

questions short. Two interview participants suggested that their farm managers did not engage interns in dialogue while in the field. Lisabeth described her relationship with a reluctant farm mentor as tense when she had questions about the labor process, “They knew a lot but they didn’t share information unless you really dug for it. We’d have to have separate conversations sort of removed from the activity because it would be distracting to get too much into things when we were working and I think I got frustrated with the woman a lot because I would always ask questions, but that’s how I am.” Farm interns such as Kristine, retrospectively wished they had been better at being self-directed learners; they described such efforts as drawing out information from their farm mentor, seeking outside course work, and securing additional tasks beyond their internship responsibilities, or supplementing their work with reading and research. Yet, there should be careful consideration that interns may not have the skills or the personality to adequately create learning opportunities for themselves while also completing difficult physical labor. Kristine articulated the strengths and weaknesses of hands on learning in her effort to become a proficient farmer:

Of course there’s things I know about soil health and pest control and all these farm things that cannot be learned hands-on or observed in the course of two seasons. I think I’m a curious person but I’m not necessarily a question asker. In terms of the opportunities to chat with the farmer while we work, I take advantage of that, that’s not how I am motivated to learn things. Unless there’s something, a really specific thing I noticed that I need an answer to.

Under these circumstances, Kristine was confident in her ability to be observant and learn, but did not have the disposition to solicit information from the farmer above and beyond what she received while performing her duties on the farm. She rationalized that the act of farming itself was sufficiently valuable.

Farm interns who felt motivated to improve their training experience took an active role in shaping the learning environment by asking farmers questions and seeking off-farm events. Those who wanted more instruction on the job did not hesitate to “interrogate the poor farmer”,

as Kaitlin described her approach. Lisabeth requested time off to attend a regional agricultural fair and registered for several workshops hosted by a sustainable agriculture organization. These individual efforts by farm interns were in many cases not necessary when farmers themselves designed the internship experience to involve structured and formal learning opportunities. Even if they possessed the aptitude and desire to self-direct the educational component of their experience, farm interns often confronted a lack of time and energy to invest extra effort. As a survey respondent noted, “Like most things, you get out what you put in, but in the height of the farm season it can be difficult to find the motivation to do extra work in order to learn more. I wish that my employers would have spent more ‘on the clock’ time helping to explain and expand our knowledge of the whole farm system.” During the height of the season when the work is most intense and there are hardly enough days to do all the farming, working to learn accentuates labor for the survival of the farm enterprise. Unless a farm mentor or internship program structures the work environment with explicit educational components, farmers and interns prioritize growing plants and animals, learning in practice as new skills and knowledge is incorporated into daily work.

Those farm interns who reported working more for the same pay justify the imbalance with a reward distinct from the originally promised remuneration. A benefit often cited was the additional knowledge that interns derived through longer work hours and the importance of contributing to the farm and farm community. A former intern responding to the survey suggested that though the workload was more than she agreed to, she benefited regardless, “Mostly, I ended up working many more hours than I originally agreed upon, but was compensated instead with invaluable knowledge.” Training and on-farm mentoring is certainly an explicit benefit that motivates women and men who participated in the study to work longer and not assess the circumstance as exploitive. Though this benefit was expected, the effectiveness and quality of training offered by a farmer or farm manager largely determined the intern’s assessment of

fairness and satisfaction with the exchange. Many interns who described themselves as “cheap labor” also complained that the level of training they received was extremely poor.

Intern not Farmworker

Participants used the term “cheap labor” to describe the feeling of being overworked and underpaid; under such conditions farm interns perceived farmers as regarding interns as workers first, learners second. The priority placed on the intern as a laborer meant that work, not instruction was the mechanism by which interns' time and tasks were organized. Those interviewed for this study were asked to describe how they distinguished themselves from a typical farm worker; the question explored from the intern's perspective the unique attributes and benefits derived from their work as farm interns, not simply laborers. Describing the dissimilarity between interns and US farm workers, participants in the interviews characterized a farm worker as someone foreign born, paid a poor wage and socially powerless to protest mistreatment (including economic exploitation and poor working conditions) in conventional agriculture. Manual labor is expected of the farmworker and farm intern alike, but for farmworkers the unit of exchange is a dollar calculated for time and effort, compared to education and inclusion in the farm enterprise in the case of interns. The contract for interns, which was likened to a barter arrangement with a farmer, was described as a personal exchange contingent on the circumstances of the persons involved in the negotiation. Farm interns rationalized that the exchanges common for farm internships created a different power dynamic within the labor process on sustainable farms to be more egalitarian. Interviewees perceived both farmer and farm intern as gaining an asset difficult to obtain outside the farm internship (cheap labor for farmer, sustainable agriculture training for intern). Therefore, the internship reflected a mutual arrangement rather than extractive contract and the higher social position of the farm intern

provided interns more power to exit an exploitive labor arrangement compared to the greater farmworker population.

Feminization of Farm Laborers

Participants reported that many more women than men worked as farm interns on sustainable farms, reflected in part by the majority of women who participated in this study. Work in agriculture has traditionally been segregated by gender; men completed the physical and technical demands on a farm, and women's work was comprised of domestic duties such as food preparation and accounting. In this study, however it was clear that women's work was hardly distinguishable from men's task during farm internships. Female identified interns relayed that they were fully engaged in the labor process on farms comparable to men in the same position. Women suggested that they were physically able to complete the majority of tasks required of them during an internship, though most participants recognized that men were physically stronger. Interview participants concluded that women substituted innovative systems and an attention to process where their male counterparts applied brute strength to solve a problem. When asked about the experience of being a woman in agriculture, female interview participants responded by downplaying the difference in roles played by women and men on sustainable farms. Women frequently responded that their ability to do work traditionally assigned to men was gratifying, but not their primary motivation to complete physical labor. Instead, they assumed that role was directly related to their capacity as a worker rather than a transformation of gender roles on farms.

4.5 Social Organization of Farm Internships

The success of on-farm mentorship is influenced by the relationship between the intern and the farmer. Farm mentoring arrangements are built around the idea that “farmers are the best teachers for farmers” (Jones 1999: 17), requiring a level of commitment from the farmer to teach and not just supervise work. A woman who completed the survey described the unique contributions that relationships contribute to farm internships:

The relationship between apprentices and farmers is part family, part worker, part mentor-mentee. That's why it's so hard to separate the work, learn, earn, live issues. Put the distance, expense and regulation between farmer and worker into the apprentice relationship that exists in other forms of regulated labor, like H2A and you will kill the magical success that is growing new farmers, despite any problems, the system works for farm training.

This is a specific kind of social organization that is distinct from the traditional labor arrangements between a farmer and farm employee. Farmers in both scenarios depend on outside workers that include interns to meet farm labor demands. But the farmer and intern are bound in a personal exchange that does not rely solely on exchanging money for work performed. Farmers invest in the future trajectory of a farm intern through teaching, modeling a farm lifestyle and providing for essential needs (i.e. housing conditions and providing food) of intern(s) whom they host.

Good farmers do not necessarily always translate to good trainers. Making this observation from personal experience and relating the experience to others, a former intern who completed the survey commented that in fact, these skill sets might actually be in opposition, “Seems that the ‘best’ farmers are the most difficult to deal with socially. Perhaps it is worth it to struggle through a year with a lunatic in order to learn how to make good money farming responsibly?” Training with a farmer with a difficult personality of poor social skills requires that the intern consider the potential consequences on the quality of training under these circumstances. A positive relationship with a farmer was viewed as an asset and foundational to

the future trajectory of the farm intern. A healthy relationship is not simply based on the personality of the farmer or the farmer's ability to relay agronomic information to an intern. Instead, a dynamic occurs where the farmer and intern engaged in an intimate way that often reflected kinship relationships. This farmer-intern exchange demonstrated a need for mutual respect and investment in the relationship.

But being considered a member of the family means that an intern was exposed (and in some cases involved) in conflict and unequal power dynamics between family members. In circumstances when interns were treated as family, there were few if any boundaries between work and personal relationships explained a former intern responding on the survey, "Workplace relations are just as important as the agricultural experience - in living on someone else's property AND working for them, you inevitably become privy to family issues which can make the internship experience difficult." The authority imposed by the farmer can thus immigrate into the personal lives of interns, especially when the intern is dependent on essential goods via this relationship, such as housing and food. As one apprentice recalls, authority expressed in personal space that distorts the relationship between employee and family member can be oppressive, "The farmer who I worked for regularly came into the apartment without knocking, poked around while we were out working, and nagged us to do our dishes. Needless to say, we were treated like children living in someone else's home."

Farm Internship Social Exchange Typology

The type of social arrangement between interns and farmers is elemental to the organizations of farm internships. In this section, a farm internship typology is proposed derived from three kinds of arrangements that typify the social transactions (explicated by the farmer-intern relationship) that structure the labor and learning process during internships. This typology is developed from

qualitative and quantitative data taken from the farm journals. The three types discussed below are: family farm member, peer farm crew and supervised workers.

Family Farm Member: Interns Inclusion in the Family Farm

Andrew and Claire were treated as part of the family unit, and the social interaction between them and the farmer was personalized during and outside the labor process. The effort made by the farmer to teach and educate Andrew while working together was referenced in a journal reflection as an important benefit to completing daily farm tasks:

Chores went very smoothly today. I am getting pretty good at moving the animals. It's also nice to work on all of the chores one-on-one with Jim [farmer]. He does a good job of explaining why we do what we do, and makes sure the chores get done right. We both did chickens and pigs, and then I got to move the turkeys on my own.

Claire was the only non-family member on the farm where she worked, and spent the majority of her labor time with the female farmer. Claire's description of her farm internship focused on being an active participant in family life, where family activities were prioritized within her work schedule. Claire attended social gatherings with the family, volunteered on extra projects with extended members of the family and supported the farmers as they cared for their children. In one of her reflections Claire wrote:

This is not just a working internship but I have become one of the family. I do a lot of tasks that are not strictly farm work but just part of life living on a farm as a family. When first arriving I did not get assigned tasks but I tagged along with the farmer and helped when I could. Over time I just naturally started doing more and more.

Andrew's social life was less intertwined with the farm family as he lived in separate housing, but he and fellow interns ate lunch daily with the farmer and his family, alternating who was responsible for cooking. Consequently, Claire and Andrew's personal as well as professional relationship with the farmer mediates the experience of the work and their quality of life during

the internship. The nature of the work and the satisfaction derived from the arrangement made in exchange for their labor is personalized based on the frequency and closeness of the social interactions that occur between the farm intern and farmer to meet both professional and personal needs on the farm.

Peer Farm Crew: Interns and Farm Managers

The farm managers who supervised Emily and Nicole's work were similar in age, counted slightly more farm experience than the interns but were not the farm owners or primary decision makers for farm operations. These farm managers worked closely with the interns on labor tasks, playing both supervisory and co-worker roles during the day. This social interaction resembled a peer relationship where interns and managers discussed farming from an exploratory perspective, as neither of these persons owned a farm but exchanged their labor for remuneration.

Conversations recorded in farm journals by both Emily and Nicole included reflections critiquing positive and negative aspects of the farm operation, and often what the interns and managers would do differently if they were the principle farmers making decisions. The farmer owners were never recorded as participating in farm labor or mentioned except in reference to a decision with which the intern and manager disagreed. Despite not being depicted as an experienced mentor with sage knowledge to impart, the farm managers offered interns the opportunity to explore farming as a new experience without an imposed template of how it should or could be done. Nicole recounted in her journal a day spent working with the farm mentor and typical conversation between the two women: "I also talked with the field manager about ideal farming situations for either of us. Basically: small scale, possibly leased land, more food source than source of income. We also talked about gated communities requiring residents to have CSA shares in what basically amounts to a neighborhood farm." Mostly new to farming and without a

clear path to farm ownership, managers and interns thought critically about their own future as farmers using their common experience working together as a reference.

Supervised Workers: Farmers as Supervisors

Olivia and Jeremiah worked on very different farms differentiated by product, farm size and marketing strategy. However, their relationship to the farmers of these operations was similar in that they were instructive, but not necessarily personal relationships. Jeremiah worked on a farm crew that included twelve interns and field, warehouse and office employees. Every morning at the same time the field crew was given assignments by the farmer and farm managers. Jeremiah did not record a single occasion when the farm owner worked in the field with interns. On days where the work slowed due to weather delays, the farmer lectured the interns on agronomic or farm business topics. Though the farmer is never mentioned as working with the crew, his role is critical to the labor process and therefore the daily work and education that Jeremiah received during the internship. Olivia, on the other hand, had more contact with the farmer throughout her day while harvesting and doing field activities, but these were mostly described as supervised rather than instructional or personal. The farmer was the primary decision maker for the tasks she completes, but Olivia worked independently or with occasional volunteers. When Olivia did work with the farmer it was to complete tasks unrelated to her labor in the field. An important distinction between Jeremiah and Olivia is that while Jeremiah was provided housing on the farm, Olivia resided off the farm. Both of these interns quantitatively had fewer reflections than the other interns, and their entries rarely focused on their personal experience of the work, but instead on the tasks themselves. In their reflection entries they described the nature of farm work and provided little to no information on the social exchanges involved. This type of farmer-intern relationship typified by Jeremiah and Olivia reflects an efficient farm operation that utilized farm

interns as primary laborers to meet production demands. However, in both cases the farm interns were in the position to receive information from the farmer, though the contact was supervisory rather than personal.

Significance of the Farm Internship Social Exchange Typology

These three social exchanges typical of the relationship between farm interns and farmers help explain the structure of the labor and learning process during farm internships. The “Family Farm Member” relationship encompassed interns who lived and worked on a farm where the family unit played a central role in agricultural operations and organization. The farmers provided both managerial and mentorship regularly during work tasks, and acted as direct supervisors of the interns. Contrasted to other labor domains, farmers and interns shared social spaces including housing, meals taken together and off the farm leisure events. Interns described their relationship with the farmer as primary to their work experience. Interns whose relationships were described as the “Peer Farm Crew” type worked under the supervision of farm managers who were not the farm owners. The farm managers occupied a similar role in the daily labor process but with power to make production and personnel decisions. Farm interns and farm managers were frequently reported as working together in the field, sharing conversations about the work and personal interests. However, farm managers were not described as important mentors who imparted critical agricultural skills and knowledge. The “Supervised Worker” type placed the farmer as the primary decision-maker on the farm, but someone who had infrequent interactions with interns in the field. Interns and farmers in this case did not demonstrate characteristics of a close relationship, indicated by infrequent contact, an absence of personal conversations and social interactions. The farmer did provide active leadership on the farm that was central to the intern’s daily work and the farm’s operations. Moreover, the farmer was considered an accessible

source of knowledge, if not during the labor process, through intermittent interactions that were managerial rather than that of a close mentor.

In future research, this typology of farm-intern relationships could be applied more broadly when analyzing the labor process on sustainable farms that offer farm internships. One of the most valuable assets of a farm internship is a farm manager or farmer's knowledge. This asset is transmitted through different forms of contact between the farmer and intern as was discussed in the family farm member, peer crew, and supervised worker types presented, which have varying implications on an intern's experience. The farmer-intern relationship is then a critical indicator of the work place learning model used widely in sustainable agriculture to teach interested persons agricultural skills, while providing essential labor to farms. This typology is also an initial attempt to determine whether the types of relationships between farmers and interns relate to different levels of exploitation on sustainable farms.

4.6 Perceived Benefits of the Farm Internship Exchange

As the findings of this study demonstrate, the farm internship diverges from formal relationships typical of agricultural labor and traditional education models. Therefore, a question central to understanding farm internships explores the alternative benefits derived by farm interns from the exchanges discussed in the previous sections. These benefits denote the kind of rationality that participants use to justify their participation and the validity of farm internships as an investment of their labor and time.

4.6.1 Socially Oriented Benefits

Producing a Material Good for the Benefit of Others

Farm interns spoke of the satisfaction of producing a material product with essential human value during their time on sustainable farms. Farm interns described farm work as “tangible” and “something I can see”, two qualities of the work that made their experience fulfilling and meaningful. Farming all day in the fields or pastures yielded foods that materially represented an investment of self; from their labor and physical contributions to the farm, interns helped create goods to meet the basic need of human sustenance. For Hannah, the experience of farming as determinate both in its purpose (grow food) and outcome (feed people) was a unique benefit to the work, “Your objectives are very clear, work is guaranteed. There’s something very tangible and finite about farming that I think is really satisfying.” The reward for Leslie was not only that her work produced food, but that she was involved in the entire process from seed to vegetable:

It's good to pause and look up, if I'm looking down and working all the time I don't think about what's going on. I think the times when I pause and look up, see where I am, see what I've done, and reflect on it a little but I get really stocked. I ran my own winter CSA the season before. Sitting in the field and saying: yeah, I planted all of you. And weeded all of you and grew all of you and harvested all of you, that was awesome. Things like pausing, looking around seeing where I am, what I've done that's when I get really stocked.

This level of involvement is based on fundamental principles of agricultural production: planting a seed, providing appropriate growing conditions and making the fruit of this process available to people who cannot live without what the intern has cultivated.

Value-based Contribution to Society

The food that an intern helped to grow was for some, not only a physical representation of their work, but gained additional significance for its value to human survival. The farm internship

exposed farm interns to the systems and relationships involving human and non-human species in the reproduction of life through agricultural activities. Farming as necessary to species survival engendered a sense of importance to the internship. As Sean explained, “It is being able to help provide food. That’s something that humans can all agree on the need for. It’s a pretty fundamental thing to work on.” The degree of human dependency on farmers for sustenance, and farmers’ reliance on the plants and animals they grow to sustain a livelihood, is a primary life cycle and one that interns, such as Jennifer who worked with two farmers operating a farm for a nonprofit in a rural area, experienced in few activities before her internship:

I mentioned before in other conversations I’ve had about why I like this, why I like the work. I think that the relationship between farmer, animal, plant, and soil is something that kind of energistic relationship is so satisfying to feel a part of something in that way where you do actually have a real significant difference. If you don’t show up one day and your animals are hungry, that’s real and they know that and they know that you matter and that they matter to you.

The gravity of the work and its universalizing capacity, its inclusivity of nature and natural cycles, and the simple fact that everyone needs to eat and the majority of US eaters rely on someone else to keep them nourished, were important motivators for interns in this study. Simply stated, farm interns derived meaning from being integral to the fundamental process of sustaining life and assess this type of meaning as an important benefit to their work as interns.

As mentioned in the section on farm interns’ motives, participants were frequently motivated by the opportunity to contribute to a social cause with positive benefits on increasing access in communities to sustainably grown food. However, involvement in such causes was also perceived as a benefit of the work. The intention of contributing to a social good versus the act of doing good was assessed as different but not unrelated merits of a farm intern. Farm interns referred to building community through their farm work, reaching out to low-income and racially marginalized eaters, and educating consumers on the advantages of sustainable agriculture as a

protest to conventional food systems as three direct areas for social engagement. These topics are discussed in greater detail in the following section.

Belonging to a Community

Farm interns reported becoming a member of the farm community was an important benefit of a farm internship. Interns spoke about primarily two groups of people with whom they engaged that formed these communities. The first group being the farm crew, and the second was eaters who purchased food grown by the farm crew. Sharing meals, housing and/or personal time away from the field were ways that interns described becoming integrated into the farm's community during their intern experience. Living in the same house and sharing meals with people on the farm nurtured valuable relationships between interns and members of the farm crew. During her interview Amanda noted that, "One aspect of the internship is I feel like the relationships have been so great. I've been living and working with the same people for the past two years . . . you form these incredible bonds that I didn't realize were possible, like knowing someone else that much." For interns whose experiences of social integration with others on the farm were positive, the social collective of workers that constituted the farm community was assessed as a benefit of participating in an internship. A survey respondent suggested the community created during her internship was added value to her internship, "The community of young farmers and farm interns/apprentices the season I interned in Massachusetts was as formative and educational as the farm internship itself- hard to re-create or predict such an experience, but it was invaluable."

However, not all interns experienced being integrated into a farm community. The social isolation that some interns experienced while working on a farm caused hardships emotionally. The feeling of loneliness and isolation that was coupled with relying on a few people for a social life was a limiting factor for wanting to farm as described by Bianca:

I started to get a little cabin crazy because I was living there [Farm] and working there and it was very, felt very secluded, and you know. You only have the farm and my friend who did the internship with me. I mean we're great friends. So it wasn't like a buddy, she was just an acquaintance of mine. And then the other intern, and so there's a very limited amount of people around and there's only so much space. Three and a half months was like, that was enough. I was ready to leave when it was time to leave I guess I could say. But, wouldn't have wanted to do anything else with my summer, either.

The extreme variations in farm context, location and farm intern personality makes the benefits of belonging to a farm community difficult to predict and impossible to generalize.

Developing Relationships with People who Purchase Local Food

Community was mentioned frequently in the context of farm intern's interactions with eaters who purchased the farm's harvest. Farm interns interacted with eaters at the farm, during CSA pickups, and also at farmer's markets. In Aden's case, building relationships with CSA customers was integral to his internship experience:

The CSA began the last week in May. Before that, it was just kind of like we were here working, producing food, and I remembered when people started showing up, and there was this thing in my brain that, oh, this is kind of cool. People come and I'm feeding these people, and after a few times of pickup days – we have pickup days on Monday and Thursday – we started to talk to people, people recognize your name and you recognize people and you're working in a field and they come and talk to you about different vegetables and they are learning stuff and they tell you something, all of a sudden there's this synergy between yourself, the land, the food, the people that are eating it, including yourself, and it kind of creates essentially what it's supposed to, in this model of farming: community.

Without the interface between interns and eaters, the process of growing food for Aden felt incomplete. The social ties to the farm's CSA members enhanced his work on the farm. Urban farms located in residential neighborhoods provided both the physical and social place for farm interns and eaters to cultivate relationships. Sienna explained that not only did she feel part of a team with others on the farm crew, but also that her farm community included people in the

neighborhood and greater city community who supported the farm's success. Sienna saw that success actualized through the farm's potential to meet an educational need in the community:

There's so many folks in the city that don't really even know what it looks like to grow lettuce, or have never seen lettuce being grown for example. They might see it in the grocery store but that is a big difference. I also think that for an urban setting, this was an abandoned lot before, so we are turning it into something that is totally useful because you can eat it, it's an educational tool, it's a positive direction for agriculture in my opinion. And also our farm is not that big, and it shows folks that they can, adult education students can do it themselves, too, on a smaller scale. And we're empowering folks to take that into their hands, too. I feel like we're providing produce, all levels of how it's amazing and easy and cheap and available, and I feel like even though it sounds really corny that's a really big missing piece in some of the community here.

The complexity of who could afford the farm's food and who was excluded according to class and race categories was a salient topic for farm interns when discussing the benefits of community they experienced on sustainable farms.

Although providing a social service was a key motivator for some to pursue a farm internship, in practice, farm interns witnessed a divisive line between those who could afford the farm's food and were part of the farm community, and those persons who might benefit most from access to local foods but who were limited by the constellation of issues that create poverty and exclusion. Though some farm interns came to work on a farm based on an ethical or social standard to create food access through locally raised food, what happened in practice was sometimes very different, explained Jennifer who worked on a CSA farm that attempted to make their food accessible without success:

Our food is crazy expensive and really out of reach for a lot of people. Both farms that I've been on, the current one and the dairy, I missed the deadline for doing SNAP benefits . . . and people would come and naturally they would get upset because we're listed on these websites and we are rejecting their food dollars. That kind of food injustice felt really crummy to me, and I think food justice is really important.

Like Jennifer, many farm interns expressed disappointment that the farms where they worked were incapable of cultivating social and economic inclusion by making their food prices

accessible to more consumers. The circumstances where farm interns were directly confronted with exclusion and elitism were described as challenging and illuminating; farm interns reflected on the changes that occurred in their understanding of the efforts necessary to bring food justice to eaters on the margins who do not fully participate in sustainable food systems due to social and economic exclusion.

Though many interns acknowledged that interactions with eaters was limited to an elite group of people, there was a perceptible awareness that sustainable agriculture depends on building relationships between farmers and eaters. Randy, who had no previous farm experience and was completing his undergraduate degree took a farm internship during his summer vacation. He assessed the success of sustainable farms as relative to the relationships developed between the farmers and consumers: “Being a small, sustainable ag farm is about being connected to as many people, and dependent on as many people as possible and having them depend on you, too. That was something I took from that [experience as an intern on a small, urban farm].” Farm interns cited their relationship with eaters and the nature of that exchange as a standard by which they used to assess the quality of their internship experiences. However, this basis for analysis was not restricted to the actual exchange of food from the intern to eater, but also the education provided by the intern to the public regarding the US food system and sustainable agricultural production. Leanne speaks to these convictions and how her involvement as an intern encouraged her to engage others in purchasing sustainably grown food:

We all want the food system to shift. We want to support small producers that are growing things without a bunch of chemicals, synthetic fertilizers and just to be a part of that. There’s this whole food system that’s so overwhelming and so difficult to, how am I going to fix it, how can I fix the whole thing? It’s not going to happen in our lifetime, but it feels like you’re doing something. I always say I feel like if I can just get one person to consider a CSA as opposed to getting all their food from a grocery store. If I can get five people from now until the rest of my life to change that, that’s something. That’s a few people at least like moving that way and supporting something that’s good as opposed to this mass produced food that’s no good for anybody. So for me it’s feeling like you’re doing something, it’s a feeling like you’re at least part of the shift to a smaller, local,

regional food system as opposed to this huge thing where you have no idea where anything came from.

Similarly, Jacqueline believed that by offering CSA members the opportunity to work on the farm alongside interns, her labor served as an example of the effort and investment required to grow food:

And every single person who worked with us in the garden was so happy that they did. Most said it was their favorite part of their week. It was so good to see people realize that there was so much more than planting and harvesting. We're out there squashing bugs and doing things that you don't even think about as a consumer. So it was a really good experience to work with the community.

Directly interacting with eaters and conveying the importance of their work to eaters was an important benefit of participating in an internship.

4.6.2 Individual Benefits

Professional Benefits of Learning about the Food System

Not only did interns relay information about the food system to eaters, but interns themselves gained insight into how food systems worked in the communities where they learned to farm. Understanding the challenges of producing food and mechanisms to market sustainable food directly to customers was helpful to both future farmers and others who intended to work in professions related to food and agriculture. Efforts to create food distribution channels, supportive infrastructure for producers and regulations that support sustainable agricultural production for example, require a basic knowledge of what goes on at the farm level. Kristine was not certain she would choose farming as a career, but felt that her professional goals benefited from her experiences as an intern:

I'm not sure I would want to own my own farm, and I still have a desire to work in the social justice field. I still kind of have my eye on either a non-profit farm or more an organization that connects kids to farms. I don't really know, but I am

hopeful because it is an expanding industry or expanding interest nationally to areas such as public health and environmental activism, and I think there's going to be more and more opportunities to be involved in farming outside of a traditional small-scale, independently owned, organic farms.

Farm internships acted as a gateway to food related professions in public policy and environmental planning for example, by enabling Kristine a means of understanding the food system from an intimate perspective. For those wanting to pursue a career in farming, an internship provided initial exposure to the constellation of activities that support a sustainable farm operation.

Access to Quality Food

Cooking food was an important factor in the farm lifestyle that interns referenced as important to their experience on sustainable farms. Eating good food and an abundance of it was cited by interns as one of the most valuable rewards of their internship. Janelle described her appreciation for farming in terms of pleasing both brain and palette: "It is so wonderful to have not only mentally, academically stimulating work, but also gastronomical stimulating work [laughs]. It's hard to think of not farming and not eating really good food." The quality of food provided by the farm and its contribution to the interns' health and lifestyle was held in high esteem. During interviews, participants were asked to identify what attributes from their lifestyle at the farm carried over after the internship ended. Cooking and food preservation skills were at the top of the list of benefits that endured; interns discussed learning to cook well with fresh vegetables and meats during their internship that contributed to eating good meals. Janelle, like others, learned to cook on the farm from a member of the farm crew:

I definitely brought in my knowledge of certain vegetables that I like to cook for myself, that I know how to cook for myself. I learned that from the assistant farm manager from when we cooked together. Like collards and kale and swiss chard and squash, and all those kinds of things. I never knew how to prepare any of

that. I found that pretty interesting, and that is definitely something that carries over with me now just because I'm not afraid to use those kinds of ingredients.

Cost and convenience were two reasons mentioned by former interns as prohibitive factors to eating and cooking sustainably grown food after the internship.

Personal Understanding of Food and Farm Injustices

Farm interns reflected on how a crisis of cheap food related to their internship experience. The crisis, as described by interns, was both a labor and social issue. Through their experience they gained a deeper analysis of the amount of energy and time expended in labor to grow food that is excluded from price of products in markets dominated by conventional agricultural firms.

Particularly at farmer's markets where customers were free to choose between vendors, interns experienced disbelief and resistance to this inequity. Jess, who was a foodie before interning on a farm, explained this dynamic in her interview saying:

I can understand they are surprised by prices and until I worked on the farm I didn't understand, so a lot of people haven't worked on a farm in their life and so they don't really understand how hard people have to work to produce the food so it's like they don't know any better than to think that it's a high price for something and to not understand that organic, sustainable farming, small scale agriculture isn't the most profitable business in the world. And because of how you do it, it's not super profitable and you don't make a lot of money doing it. I just never really got mad when people would say things like that because I could easily see myself thinking that going to a farmer's market 6 months earlier.

Farm interns empathized with eaters by acknowledging that prices of sustainably grown food were much higher, but justified the expense as appropriate to the costs to grow food using sustainable methods and the human labor invested in the process. Though interns valued sustainable agriculture as an alternative to conventional production before their internship, their personal efforts provided perspective on how the cost of food should include fair compensation

for farm workers. Julie explained that her personal investment in food changed after learning the value of labor invested in growing it:

The thing about going to the grocery store and buying a bunch of kale for \$2.50 and then letting it rot in your fridge, now I feel so awful letting that happen. Not even the grocery store, there is still such a veil that you're in it's just beautiful produce in these baskets, but when we would get food from Garfield [local farm], letting that rot in my fridge, I knew the people who grew this, I knew the people, my girlfriend was sweating out there to make this, why would I let this rot? It's ridiculous. I have just much more an appreciation for food in general.

Personal contact with people whose labor is required to grow food for sustainable food markets, and being one of those laborers for a short period of time, changed participants' analysis of the value of sustainably grown food. The human contributions of food production and costs to a fair wage and treatment became important factors in how farm interns deduced the value of the food they purchased after a farm internship.

However, when justifying the cost of the food they grew to customers as fair, interns simultaneously acknowledged that prices were a stark dividing line between economic classes. As often as they extolled the importance and satisfaction of providing eaters good, sustainable food, interns struggled with the reality that they were feeding mostly wealthy customers. Jennifer referred to this situation when discussing her time at farmer's markets:

The cheese we sold went for essentially \$16 a pound and the pasteurized milk was, we sold in half gallons and it was \$7 and that's pretty pricey. I could never afford that even if I was making an hourly wage. It's hard, it's hard to talk to somebody who's on food stamps about why your goat milk is 7 bucks a half gallon. Our justification for that other than this is the price point that we have in order for us to make a small profit, this is what we have to charge based on the amount of labor, and usually people understand that direct correlation.

The irony was not lost that if not receiving food from the farm as compensation, farm interns likely could not have afforded what they had grown based on the small stipend they received for their work. This incredible inequity prompted interns to suggest that they would do it differently on their farm. Kaitlin contrasted the management decisions of the farm owner with her social values:

The economics of this kind of clean food always bothered me in that it's kind of an upper middle class luxury. Not kind of, it is. I remember at one point getting into a bit of an argument with Steve [the farm owner] and he referred to the farm as a charity, and I was like 'Really? Growing food for rich people, that's a charity now? That sounds like a poorly run business!' That's something that I would really like to try to figure out with my own farm is how to be able to deliver more of what I make to people who can't pay as much without giving up the fact that I deserve to make a living wage off of what I do as well. I have no idea how to bridge that gap, but I would love to see it happen.

The specifics in changing the economic dynamics of prices that barely paid the farmer a living wage and precluded American eaters from lower socioeconomic classes from eating sustainable food were in short supply. And for good reason, this is an intricate and compounded problem.

Adopting the Farm Lifestyle

The lifestyle of farm families, regarding how they dedicated their resources and time, often diverged from an intern's previous living situation. The difference opened people like Elyse to a new way of living and welcomed way of being in the world. Elyse describes the contrast but also the centrality of the farm lifestyle to her experience:

I don't even know if I'd want to farm in general. I think it's more the lifestyle I'm talking about. I definitely want to homestead and incorporate all these different things I pick up at the farm because even before that, it never crossed my mind. I would never have done that before. Kind of letting go of whatever I was like in New York, which is very consumer and shop a lot, of course, and always going out, but that just really changed over the course of the first season where I began to appreciate different things and value things differently.

A farm lifestyle characterized by farm interns also included physical work outside. The centrality of the earth and being outside delighted Kristine, "I love the change of seasons, I love the ebb and flow of things, I love how things are different every day you show up and how much my body is connected to the weather and to the changes in light of the season." Work schedules and the workplace were set by the cycles of the sun and weather. Office walls and electronic gadgets occupied a limited if not subordinate role in how interns accomplished tasks, which some

regarded as a positive change from their lives as students or employees at previous jobs.

Jacqueline, who worked on her University's farm during the summer talked about her experience farming by contrasting it to her normal school routine:

There is just something about waking up early, being so tired at night you have to go to sleep. When you're a student, I just wake up and sit on a computer for eight hours and I'm like I'll guess I'll go to bed. But there's nothing like using your body to the point of exhaustion and waking up and doing it again. It just feels more natural, and I'm making use of my body. I have these muscles and I have this knowledge and to make it all work together just.

Pursuing a farm profession itself was not indispensable to acquiring the benefits of a farm lifestyle during an internship. Nor were the benefits of a farm lifestyle bounded to farm work. The time to work in the soil or handle animals, be in nature and engage one's body in activities that aligned with personal values and intimate relationships propelled people to look closer at their lives and the world. In many ways, the internship was transformative in that farm interns felt as if they were different people after their internship compared to before the experience. Three female interns in the interview phase of this study described this change, Alexandra in this way: "Really, it's really been such a different way of seeing the world was the big surprise. It's changed my viewpoint in so many different ways that I had never imagined being exposed to – exposed to different community, exposed to different thought patterns, it's been very life changing." The emotional experience of this transformation, whether it is a vocational calling or a way of living, was described as exhilarating and alienating. Exhilarating in that people, like Elyse happened upon work and a lifestyle that made them very happy in way they never expected. But making sustainable farming a career or lifestyle meant choosing a path profoundly different from choices made by most family and friends. Elyse provided an example: "I don't know, I guess that's how I would phrase it. I feel like what I think is important, who I was before I started farming. I don't even think I'm the same person, which again is probably part of the reason I feel like an alien now with people I knew growing up." Farm interns valued their time on farms for how it shaped

their worldviews and lifestyle. Subsequently, they attributed high importance to the farm work and lifestyle that were central to their farm internship. However, participants did not perceive that their work and decision to farm were mainstream values. Those participants who wanted to continue farming described justify their decision to close family and friends as a meaningful life trajectory.

4.7 Farm Interns' Assessment of Farm Internships

The focus groups convened at the end of the study aimed to offer farm interns opportunity to share and compare the conclusions *they* have drawn about the practice of the sustainable farm internship. This section will end with findings from the focus groups. The format in the section retains the style of recommendations made by farm interns to hypothetical farmers during the three group sessions.. While attempting to maintain the spirit of what was said, none of the language used in this section is directly quoted from participants.

Learning and Laboring

Farm interns emphasized that it is important to structure educational experiences during farm internships. Suggestions for doing this included having an educational plan and sitting down with an intern to impart information that would supplement the work. Participants felt that this kind of structure is critical for teaching people. The focus of an internship should remain on the learning component. Participants acknowledged that work is a good way to learn, but not the only way that farm interns expect to be instructed. And too learn, attention and time should be given by the farm owner or manager to provide mentorship that included demonstrations on how to farm and information on pertinent farm topics related to the work. Consequently, farm interns felt that a

certain amount of teaching was required during their on-farm training experience; they simply did not feel that being given tasks was sufficient. Farm interns discussed the compromised quality of such teaching opportunities when they depended on moments that were only convenient for the farmer and occurred at the last moment.. A component of being a good farm mentor included being understanding when things go wrong. Participants advocated for a system to be put in place on farms to facilitate discussion when something goes wrong that would allow farm interns to learn from the mistake. According to farm interns, a farmer should be able to explain what happened and how not to make the same mistake in the future.

Transparency

During the focus groups participants emphasized that it was helpful to know what to expect out of a farm internship. For example, farm interns want to know what work needs to get done and when, how the intern will be involved and for what purpose. Being included in planning and communicating expectations of how and why farm tasks are to be completed can help the intern work more efficiently and effectively. Participants agreed that if a farmer does not talk to the intern about what is going on at the farm, the intern would be less likely to engage fully on the farm. Open and regular communication between a farm intern and a farmer facilitates good relations and a better work-learn environment. For interns, one of the most important parts of an internship is getting a sense of what goes on in a farmer's head. Even if the decision is made on the fly, understanding why a decision is made a particular way is considered helpful to interns. This expectation of participants requires a certain amount of transparency on the part of the farmer to communicate not only what needs to get done in what way, but why.

Sustenance

Farm interns expressed that their primary reason for interning is for the opportunity to farm, , but abundant food, good housing and fair compensation are essential to sustaining farm interns.

Having access to good food that interns grow with their own hands is an important factor of a successful internship. Participants agreed amongst each other that it is also an important part of the experience to be able to eat the food that one helped to grow. Of those interns who were provided housing, a common sentiment shared was that living and working with the same people can be intense. Farm interns advised farmers to provide their interns a comfortable space where people can have time to themselves. The offering of free housing is important to make ends meet, particularly when there is no money exchanged between interns and farmers. However, participants voiced that such remuneration was used to bypass fairly compensating farm interns for their labor contribution. These farms were characterized by participants as just looking for cheap labor who do not invest in the intern but just want people to work. There was discussion in the focus groups that money can be an incentive to make people work harder. But this idea included the notion that when farmers do not pay someone such as interns, then interns may work harder to get derive more out of the experience other than a salary. A prevailing recommendation from interns in these groups is that farmers should not look for interns because they just need laborers. The likely result of such motivation is a bad experience for the intern. Participants attributed the circumstances above as occurring when farmers are not ready for interns. To host interns, participants concurred that farmers have to be have the time *and* the knowledge to teach. Under circumstances that farmers just want a worker, focus group participants concluded that they are mistreating interns.

Future Farmers

Participants were widely frustrated that no one in sustainable agricultural circles is talking about what happens after the internship. Focus group discussion tended toward the cases when an intern invests time working on sustainable farms without earning money for their labor feels prepared to operate a farm but has no way of paying for it. Participants acknowledged that there are older farmers who want to bring people on and that the best kind of internship is one where there is retention. Under the current model of a farm internship, people want to learn on a farm for more than a short period of time but afterward would come away from the farm internship with very little money to make it possible to farm. Farm interns iterated that not everyone who completes an internship wants to be a farmer immediately following their internship. According to participants is more likely a farm intern wants a farm worker or farm manager position after an internship, but these positions are rare and seldom pay enough for someone to make a decent living.

4.8 Conclusion This chapter presented findings and analyses regarding both the social organization and subjective experience of farm internships on sustainable farms. First, the characteristics of farm interns was presented and discussed in relation to the role that a person's social position plays in their work and treatment during a farm internship. The motivations for participating in farm internships was discussed next, focusing on social and personal factors that influenced a farm intern's pursuit and expectations of being trained on farms. The three primary social exchanges constituent of the on-farm internship followed. The labor process and tasks that farm interns performed were described and an analysis of the importance of the labor process to the social organization of farm internships was included in this section. The ways in which interns learned and the skills and knowledge acquired during a farm internship were presented next.

Particular attention was given to how farm interns learned was in this analysis. The last social exchange was presented as a typology that discussed the differences in types of relationships between farm interns and farmers. Participants' perceived benefits of the farm internship were discussed as explanatory power for how farm interns justify their participation in the farm internship model. Finally, conclusions drawn from discussions among farm interns regarding best practices and potential areas of improving farm internships tied together the findings from the Chapter. Discussion of this chapter's findings and their implications for sustainable farm internship practices are presented in the next chapter.

Chapter 5

Conclusion

This study investigates the experiences of farm interns who work on sustainable farms, and how the social organization and personal motivations of farm interns shape this experience. This research sought to address this purpose with two primary research questions: 1) What are the social exchanges that structure a farm internship? and 2) What are the motives that influence a person's participation and assessment of a farm internship? Such an inquiry encompasses the labor, learning and social relationships of the farm internship, as well as how an intern's social position, motivations and valuation of benefits influence their participation and evaluation of the internship.

This chapter begins with a discussion of the study's major findings. The first section pertains to the role that farm interns play in the labor process on sustainable farms. The laboring to learn model of farm internships is considered in light of training a new generation of sustainable farmers. Next, the implications of farm interns' alternative motivations and counter-capitalist rationalities on the social sustainability of labor practices in agriculture are examined. The conclusions presented in these three sections seek to ultimately explore whether farm internships concretize socially responsible practices by instituting non-exploitive treatment of farm interns. The discussion that follows offers ways the research might contribute to scholarly work in the sociology of agriculture and more applied fields of farm labor practices, farmer training and the sustainable agriculture movement. The chapter ends with directions for future research on the topic of farm internships on sustainable farm operations.

5.1 Farm Internships Are Informal Work Arranged According to the Labor Organization of Sustainable Farms

Participants in this study suggested that remuneration received in exchange for labor met their basic needs of food, shelter and in some cases money to purchase essential goods. Yet, this kind of remuneration required substantial adaptability and sacrifice on the part of the individual intern and personal relationships with a farmer or farm manager. Farm interns in this study consented to work for no wages because they had the support of outside resources such as help from family members and a college education. Farm interns' ability to organize resources outside of this exchange suggests that their consent to the internship conditions was based on a willingness to make personal sacrifices. Sustaining one's self during the internship was contingent on difficult work and living conditions being temporary, participants' ability to exit when desired based on access to external resources, and the work itself (and meaning derived from the work) perceived as unique to the internship and difficult to acquire outside the farm internship model.

Farm interns justified their salary sacrifice as appropriate compensation for the disruption they caused in a farm's production process as unskilled labor, and the time required to instruct them on basic tasks. Farm interns suggested that their training was a detriment to the efficiency of the farm operation and their novice status did not warrant earning wages akin to those earned by a skilled farm worker. The number of hours that farm interns contributed to production activities relative to the number of educational and instructional events provided by farmers suggests however, that farm interns were treated as laborers more often than learners.

The term "essential labor", which appeared in Chapter 2 of this thesis, is used by the US Department of Labor to delineate the kinds of tasks and contributions that interns are legally permitted to perform as non-waged workers or "trainees." According to this definition, if a farm internship was legally permissible, a farm enterprise would still meet production demands without the presence of an intern and the farm is responsible for establishing a structured

educational program that accommodates the intern's low skill level. Findings from this study suggest that work performed by farm interns were essential tasks on the farms where they labored. These tasks were not structured to meet the educational needs of the farm intern, but rather the intern's learning opportunities were shaped by the labor demands of the farms. Farmers who accept interns to do work with tangible benefits to the farm operation should by law pay these farm interns as farm workers. This labor exchange between farm interns and farmers is a variant of the labor process on simple commodity producers who supply their own labor but require outside workers to meet production demands. The farm intern frequently functions as a nonwage member of the farm enterprise who depends on the production and social context of the farm operation for their internship experience.

5.2 Farm Internships Function as a “Learn-by-Doing” Model of Vocational Training

Little teaching was conducted during farm internships; learning was the part of the educational process most perceptible in this arrangement. According to farm interns in this study, engaging in the work rather than being an object upon which teaching was directed was the central thrust of how the internship model conditions skill and knowledge acquisition. A learning curriculum during a farm internship consisted of situated opportunities where new skills and knowledge could be developed. This included a learning landscape that offered the intern unstructured resources to learn while working. Farm interns interviewed contrast this approach to a traditional teaching method where a teacher controls the goals for what should be known at the completion of a course and the delivery is purely content-based. During the farm internship, the farmer controls the work and work environment to introduce interns to new skills and knowledge. Learning ideally would be arranged so that the farm intern experiences the whole farm enterprise; however, interns primarily performed few tasks repetitively as a consequence of labor demands

on sustainable farms. Consequently, for many interns, learning opportunities were often limited by the scope of labor available on farms and the type of work needing to be completed to keep the farm enterprise viable. Work assignments were not specified as a set of learning dictates or standards, but corresponded to the skill level of the farm intern and available work at the time the intern was on the farm. Yet, there was variation by farm regarding the kinds of tasks and the frequency they were performed by interns. As the study's participants noted, a diverse work experience depended largely on their relationship with the farmer and organization of the farming enterprise. Moreover, the cycles of agricultural production and how one might ideally learn the fundamentals of agricultural production did not necessarily coincide. Learning was therefore heavily influenced by the work available and the exposure to learning opportunities arranged through the labor process rather than through deliberate teaching and intentional instruction offered by the farmer.

Learning during an internship is inherently situated; it cannot be removed from the place or social relationships that shape participation in the practice (see Chapter 2). The findings of this study demonstrate a farm intern may be integrated into the customary activities of everyday life on the farm, including membership in the family and/or a community of other interns. As was shown in the farm internship typology presented in Chapter 4, not all relationships between interns and farm supervisors were arranged similarly, offering reason to believe that the nature of the farmer-intern relationship will influence the types of learning and teaching opportunities during a farm internship. These variations in social relationships during internships are important factors in the effectiveness of the learning environment on farms. Furthermore, the examination of social relationships in this study demonstrates that learning opportunities within the farm internship sometimes occur outside of the farmer-intern relationship. Farm interns used their position on a sustainable farm to educate eaters on the importance of sustainable agriculture, a central benefit listed by participants who were motivated by contributing to a social good. This

form of education provided by the intern to others in the farm community was deemed an important factor in a farm internship by the study's participants.

The internship model of learn-by-doing in a situated place within the context of personal relationships provides opportunity for interns to practice what they learn with a mentor who can impart practical knowledge to a novice. This model of a farm internship is envisaged as praxis, where there are cyclical opportunities to practice and reflect on skills and knowledge. Each part of this process ideally informs the other. Although interns expected work to be the primary means of learning how to farm, they also anticipated receiving instruction from a farmer. The unstructured and self-directed model of farm internships provided little guidance and explanation of important concepts during a farm intern's labor. Farm internship models that relied on the learn-by-doing approach appealed to farm interns who sought hands-on experiences in sustainable agricultural production. Farm interns pointed to a knowledge disparity that occurred when they were provided too little information from a farmer or farm manager. Farm interns in this study suggested that regular instruction while working might have helped them understand not simply what they were doing, but how a particular task applied to the farm system as a whole. Farm interns advocated for more support and structure during labor on farms to ensure that their training was comprehensive; increasing the number of interactions during the labor process between farmers and farm interns would be one way to improve the educational setting of farm internships. Findings from the focus group suggest that opportunities to improve learning in social contexts include regular farm meetings or in-field conversations where a farmer can demonstrate, explain and provide feedback to interns. Despite emphasizing the importance of instruction and explanation during an internship, the hands-on model of education was highly valued by farm interns. This form of learning while laboring was lauded by participants as an effective way of being introduced to sustainable farm production. Completing tasks in the field as they were performed by the farmer, problem solving challenges that arose during the labor

process, and working with farmers and others interested in sustainable farming were all essential components of the education of farm interns.

5.3 Individual Adaptation Strategies Do Not Encourage Just Treatment for Farm Labor

The work on farms was personally meaningful for farm interns and became for many a life's vocation. A farm internship was formative beyond professional training; it facilitated the acquisition of agronomic skills but also provided personal experiences with nature, living and working in community, opportunity to make a social contribution and helped an intern develop basic living skills such as cooking, food preservation and resource sharing strategies. According to participants in this study, these alternative benefits had a positive impact on a farm intern's quality of life and influenced how they chose to live as a responsible and consciousness consumer and community member.

Participating in a farm internship was an option for an exclusive few who had access to financial and social resources that made it possible to take a salary sacrifice. However, a farm intern's individual power to take a salary sacrifice and endure difficult working conditions, both of which do not provide adequate support for a decent livelihood, is a form of elitism. The sustainable agriculture movement is a largely homogenized landscape of white, upper to middle class persons who are well educated (Guthman 2011; Hinrichs 2003). The social demographics of farm interns are consistent with these findings. Moreover, their citizen status, access to healthcare, and eligibility for other jobs outside production agriculture allow farm interns a form of agency, which is in direct opposition to the typical conventional farmworker who is commonly foreign born, has low educational attainment, and does not have access to services such as medical insurance. The entryway into sustainable agricultural production for farm interns was typically through their value system, not financial necessity. By way of popular media including

books and movies, individuals were introduced to an idea about food and then choose to work on farms whose production methods and value system aligned with their own worldview regarding the way that food should be grown and distributed. The choice that farm interns made to participate in sustainable food production was therefore a privilege and excluded persons who neither had the social and economic resources to make the same choice to intern for minimal or no pay.

Socially Just or Just Barely Sustainable?

These observations raise two important questions. First, do farm internships promote non-exploitive treatment of interns on sustainable farms? Secondly, do farm internships on sustainable farms establish socially responsible and just practices? The answers to these questions are complex.

Farm interns are exploited as cheap labor when the conditions of their internship do not provide for a decent quality of life and impart agricultural training apart from the labor process

The ethical question assessing the just treatment of farm interns asks whether farm interns are exploited for their labor on sustainable farms. A classical Marxist interpretation of capitalism deduces that labor provided by a worker who does not control the means of production and therefore is excluded from the profits derived from her products is exploited by the capitalist (Marx 1981). Such an interpretation might conclude that farm internships are inescapably exploitive resultant from an intern's salary sacrifice and dispossession of power to direct the production process. Yet, the conditions of the labor exchange during farm internships resemble a barter agreement where the intern benefits directly from the resources of the farm, including the

farmer's knowledge. The hybrid nature of the farm internship as an informal labor and learning exchange necessitates a nuanced consideration of agricultural exploitation. Farm interns who shared their experiences during this study pointed to their self-sacrifice as consent to exploitive conditions, including not being paid for completing essential labor and the lack of intentional instruction provided by farmers or farm managers. Farm interns reasoned that by choosing the circumstances and conditions of the internship exchange, they consented to and approved of their own exploitation. The consequences of this decision were positively justified by the alternative benefits the intern derived (and the value of the decision considering there are few opportunities to gain these benefits elsewhere) in regards to personal values and meanings made manifest through the internship experience.

Economic equity is therefore less salient to the interns' consideration of exploitation for both personal and structural factors. The participants in this study made clear that they were aware of their social power to limit the duration and dependence on this type of work. The social mobility of interns allowing them to exit farming to other occupations (based on educational level and/or previous job experience), the seasonal nature of the work characterized as a break and not unemployment, and their solidarity with farmers justifies conditions that might resemble or relate to exploitation in traditional farm work. Poor pay, difficult working conditions, the inability to negotiate for better wages and treatment are not considered social injustices, but a temporary and changeable condition justified by the personal outcome of internships.

Many farm interns who justify their participation using non-capitalist rationality come to the conclusion that their farm internship experience was not exploitive at a personal level. However, the findings here suggest that the farm internship is directed toward maximizing the intern's labor contribution to meet production demands on farms, which is an exploitive model of organizing the work-learn arrangements on farms if interns are not rewarded appropriately in intentional training and sufficient remuneration. A Marxist interpretation of the social labor

process suggests that the farm internship is therefore, objectively exploitive as it extracts the labor of interns for the benefit of a farm owner who does not distribute the profit made from the intern's labor back to the intern. This however is not how participants analyzed their own situation from within the farm internship. Subjectively, farm interns do not consider working without equitable monetary return or control over the production process outright exploitation. Employing a different set of values that does not prioritize monetary costs and returns, participants considered the circumstances under which they interned to provide alternative benefits. This form of substantive rationality juxtaposed to the capitalist paradigm is important to consider when casting a declaration of social inequities on the farm internship. Exploitive conditions instituted by the farm internship model are experienced as justifiable based on the rational of individual farm interns.

Farm interns' consent to unjust labor conditions is deleterious to making sustainable farming practices socially just

How to explain the dissociation between social sustainability of farms and the treatment of interns is a quandary explored through the difference between the individualized interpretation of exploitation and the collective efforts of calling for social change. The rationalization employed by interns to justify their self-sacrifice for alternative benefits fail to correct the inequitable distribution of resources and power in the labor process on farms that require outside labor to meet production demands. The intern's commitment to learning sustainable farm practices alongside farmers who are stewards of natural resources must not come at the sacrifice of equitable social relationships and fair labor practices on sustainable farms.

Farm interns' consent to exploitive conditions effectively maintains a low standard of social sustainability for those whose livelihood depends on farm work. A farm intern's self-sacrifice to achieve personal gains depresses the economic return for farm workers whose livelihoods depend on exchanging their labor for a wage. If the price of sustainably grown food continues to be subsidized by cheap (and in this case mostly nonwaged) farm interns, the goal of making sustainable agriculture sustainable for the farm labor force has no prospect of succeeding. Moreover, the treatment of interns as expendable laborers does not serve to institute a standard for the just treatment of workers who harvest sustainably grown food. The strategies used by farm interns to subsist during a farm internship are not permanent solutions to making the labor they contribute valued in the alternative food system. Nor does using farm interns to complete essential labor create a concrete shift in ensuring that people whose work is fundamental to sustainable farming are treated equitably.

5.4 Contributions of this Study

5.4.1 Contributions to the Sociology of Agriculture

As noted in Chapter 2 of this thesis, there is a gap in the sociological literature regarding social sustainable labor practices on sustainable farms and the use of farm interns as a cheap labor source. Although farm labor issues have been examined in the context of the persistence of the simple commodity producer in the US, on farm internships constitute a new form of farm labor. Since the surge of interest in local food and sustainable farms, very few studies have examined the social organization of farm labor on small-scale farms. Most studies that investigate farm labor practices continue to focus on conventional farm workers whose socio-economic demographics are very different from the farm interns who participated in this study. Findings

from this research can help guide future studies that explore internship issues on family farm enterprises, particularly in the context of alternative food systems and sustainable agricultural practices. This research is one of the first academic inquiries into the farm internship as a labor and training process, and the social relationships that structure the arrangement. Areas of sociological inquiry that this study contributes include the labor practices employed by family enterprises to remain viable in capitalist markets, the opportunities that farming presents workers to employ alternative reasons for laboring, and the social factors that shape how people participate in sustainable agriculture.

However, this study also contributes to an initial examination of a training model for preparing inexperienced persons to become future farmers. Research on vocational educational training (VET) and training for persons in the informal economy are mostly focused in the European context and within industries that formally organize apprenticeships. Though internships in the US are not unique to farming, the rise in popularity of sustainable farming and historic treatment of non-farm owner labor makes issues of equity and justice within farm internships particularly compelling. Hence, this study expands the sociological discussion about agricultural labor practices and training to other disciplines that include adult education social and agricultural economics, and labor law.

5.4.2 Contributions to Practice

This research study has significant implications beyond its academic findings. The analysis and discussion presented in this thesis will hopefully provoke thoughtful consideration from farmers, agricultural organizations, extension agents and future farm interns who are working to achieve a more sustainable model of agricultural production. The significance of the three exchanges that structure farm internships may be useful to farmers who are interested or who are currently

hosting interns. This research offers a starting point in identifying best practices and areas where farm internships need improvement. The research study also affords farm interns the opportunity to relate their experience to others who have completed internships. Sharing experiences and viewpoints might allow interns to reflect on their role in agricultural production and how they can be change agents in the sustainable agricultural movement. Concepts from this study might also assist those who are considering participating in a farm internship examine the implications of their decision and engage in conversation with farmers on how to make farm internships a sustainable model of on farm training.

5.4.3 Significance for Society

The public attention paid to sustainable agriculture largely neglects the social sustainability of farm practices, making for an unsteady platform on which an alternative food system can be created. Farm interns are the hidden hands behind food at farmer's markets, at CSA pickups and in restaurants that purchase directly from farms. Conscious eaters might consider the importance of fair labor practices for the sustainability of their food if made aware of interns' experiences on sustainable farms. If future studies confirm that farm interns supply essential labor on sustainable farms, the problem of a cheap labor force supplying American eaters food persists. The treatment of those who supply their labor must be addressed if sustainable agriculture is to be a place where sustainability can be achieved and a true alternative to conventional agriculture concretized. The consequences for society could be a more just and equitable model of sustaining the laborers who grow food for American eaters.

Pressure to improve the internship model should come not only from consumers requesting more socially sustainable agricultural practices, but from US policy makers and governing bodies that legislate and enforce regulations regarding the production of food in this

country. The legality of internships is clearly put into question based on the findings presented here that farm internships are oriented to meet production demands, rather than implementing a program focused on learning opportunities for the participant. Taking into account the larger context of the cheap food economy in which commodity crops are heavily subsidized by the government, this study demonstrates the need for concerted approaches to support people interested in growing food crops using sustainable methods. The current food economy creates a race to a bottom where labor is often the place where farmers cut costs and compromise labor standards. The federal definition of an internship needs to be given greater public attention and oversight to ensure that the practice is not used to secure cheap labor. Governmental programs that support sustainable farmers both financially and with appropriate programming to host interns could be an initial step in the right direction of making farm internships more economically viable and socially equitable. One example might be state funding for an independent organization or institution to oversee a process for registering farm internships and overseeing that farmers provide adequate remuneration to farm interns during the season.

5.5 Weaknesses of the Study

Potential weakness of this study relate to the exploratory nature of the research. As it was designed, the scope and scale of data collection is limited. The practice of on-farm internships has rarely been studied. The dearth of social science studies and information on farm internships required a study that began collecting initial information from the experiences of people who participate in the farm internship. Moreover, the practice itself is complex. The population of farm interns is difficult to recruit due to their rural location and the transitory nature of the work. As a result, the recruitment of participants was a significant challenge. A larger and more diverse

sample might reflect a richer understanding of farm internships, specifically to include more minorities and less educated farm interns.

The kinds of food grown on a farm and the size of the operation were two factors thought to influence a farm intern's experiences. Limiting the geographical range of farm internships within Pennsylvania intended to eliminate extreme differences in growing climates between farms. However, the study did not narrow the focus on a particular production type (i.e. fruits, vegetables, meats) or size of farm (in acreage, production volume or size of the farm crew). Alternatively, the research design sought to include these factors to account for the variations that farm interns encountered while searching for farm intern positions in Pennsylvania. There is likelihood however, that the results of this research would vary according to these factors. This was particularly the case in the survey. Findings reported on the kind of work interns completed on farms failed to include dairy or livestock tasks, and thus interns on farms other than vegetable operations might be underrepresented. The survey also did not specify at which point in the season average hours worked should have been calculated. Personal relationships were identified as an important theme of on farm internships, participants were never pressed to describe their relationship with a farmer or supervisor before or during their on-farm experience. All of these are shortcomings of this research, which should be addressed in future studies. Finally, this research focuses on the perspective of the farm intern. The restricted scope of the study was necessary for practical and analytical purposes, but further studies could explore the experiences and perceptions of farmers as they relate to the topic of farm internships.

5.6 Questions for Future Research

The questions answered in this research study only begin a much longer and critical dialogue about farm internships in sustainable agriculture. As this study has shown, a farm intern who

chooses to work in exchange for housing, food and education with a modest stipend may sufficiently have their needs met for the period of time they work on sustainable farms. For those who wish to continue farming, a salary sacrifice made while interning advances their skills and knowledge of sustainable farming practice but potentially puts at risk their financial ability to ultimately invest in their own farming operation. Subsequent studies might investigate the impact that a salary sacrifice has on the future financial viability of farm interns wishing to farm for a profession, and how their trajectory in agricultural is influenced by access to monetary resources versus skill and knowledge acquisition.

A study that focused on farmers who host farm interns should follow this one. Farmers could provide perspective on the contributions that farm interns make to the farm enterprise, the challenges and rewards of simultaneously training and supervising an inexperienced worker, and the various implications that interpersonal relationships have for labor practices on their farm. The question of how to distinguish a farm intern from a farm worker is another issue that deserves more serious consideration in future research. A national study of farm interns that compares their work and social sustainability to labor and treatment to farm workers in both sustainable and conventional agriculture, could speak to important issues of exploitation, extraction and exclusion in the US agricultural sector.

Appendix A. Semi Structured Interview Guide

General Questions

- Why did you become a farm intern?
- What led you to an interest in sustainable agriculture?
- Can you name some characteristics of the internship/apprenticeship that make it a meaningful/helpful experience?
- What was the most surprising (good or bad) thing you faced as an intern/apprentice?
- Do you think that on your farm, you were adequately compensated for what you produced?
- What kind of educational opportunities/training made you a better intern/apprentice?
- What kind of educational opportunities/training will be most helpful to you in the future?
- Are you satisfied with what you are getting in exchange for working?
- What differences are there between a farm worker who is paid by the hour and an intern/apprentice?

Education

- When first arriving at the farm, what skills or knowledge did you possess that you could use in your work without having to be trained?
- During your internship/apprenticeship what classes and/or education programs has the farm provided?
- During your internship/apprenticeship what classes or educational activities have you attended off-farm?
- Can you describe the kind of informal training/education you receive on a daily basis?

Work

- What type of work do you do?
- How is your work structured?
- What work do you not do on the farm?
- If you were to describe your work to a person who eats the food you grow, what would you tell them you get in exchange for feeding them?
- How do you think the farm gains from your work?

Compensation

- When searching for an I/A, what goods or resources were most important to receive in exchange for your work?
- Did you sign a formal contract or how were the arrangements made?
- Of those things, which are being provided and/or not being provided by the farm where you now work?
- While working for this farmer, what type of compensation arrangement do you have for your work?
- How did the housing arrangement meet or not meet your needs? Is it adequate and comfortable for you, if not why?
- Do you feel adequately compensated? Why, why not?

Farming in future

- Do you have plans to farm in the future? If so, what plans do you have to continue farming in the future?
- What do you need to own your own farm that you got from this I/A experience? What are you missing?

Question prompts (if questions above are not complete)

Internship/apprenticeship background information

Worker classification (intern/apprentice)

Length of internship/apprenticeship

Location of internship/apprenticeship

Products grown and/or raised during internship/apprenticeship

Can you name the most important factors that went into choosing a farm to intern/apprentice (location, crop type, size, production style etc.)

Where did you find this particular internship/apprenticeship? (website, word of mouth)

Are any of your friends working on farms? Did any of these people inspire you to get into farming?

What were you doing prior to coming to work on the farm?

In last 12 months have you traveled to do field work (if yes, when and where) and WHY? (was it just for work, or educational reasons or some other reason?)

What from this experience would you do on your own farm if you had an intern/apprentice?

What from this experience would you change on your own farm if you had an intern/apprentice?

How has the training and education met or not met your expectations and needs?

How have you learned best during this I/A? What are the most important skills you have learned from working on this farm? How did you learn these things?

Are there skills/knowledge not gained from this internship/apprenticeship? How do you anticipate learning these things in the future?

Appendix B. Interview Questionnaire

Sustaining Labor: Personal background information

Name

Farm location

Farm type (i.e. CSA, Farmer's Market, seed, meat, vegetable etc.)

How many months have you been an intern/apprentice on this farm?

Age

Gender

Race-ethnicity (circle)

- White
- Black
- Mexican-American
- Chicano/latino
- American Indian
- Asian
- Native Hawaiian or Pacific Islander
- Other

Country of birth

Highest level of education

Is anyone in your immediate family farmers or farmworkers? (circle)

- Yes
- No

Do you have health (medical) insurance? (circle)

- Yes
- No

If so, who is the provider (farmer, employer, family, school)

Do you own? (circle)

- a plot of land
- a house/apartment/condo
- a mobile home
- a car/truck
- a business

Appendix C. Farm Journal Introduction Letter

Dear _____,

The intent of this journal is to collect information of the daily activities of farm interns/apprentices. Very little information exists on what is produced as a result of this growing sector of the work force in sustainable agriculture. More importantly, we want this to be a record that serves you in the future. The entries should demonstrate your contribution to the local food system during these two weeks. Hopefully the information contained in the journal will be informative both to the public and to you, as to what is required to grow food and what is gained in this process.

To protect your confidentiality and ensure that the information you provide is used appropriately in our study, please complete the “Agreement of Confidentiality” and return it with the journal.

The journal is to be kept for 14 consecutive WORK days. Please treat each page as its own day. There is a template at the beginning of the journal, which demonstrates how to complete entries.

We ask that you complete your entries on the same day the work/activities are conducted. The expectation is that you provide as much information as you can about each work activity.

A space is provided for reflecting on the day’s events including: educational classes, informal skills training, an insight about what you did or experienced that day, an unusual occurrence on the farm or in your day (a special farm activity, a sudden injury) or any thought that relates your role as a worker on the farm to the food, people, and environmental resources that you interact with during the day. Take this opportunity to explain from your perspective what the work and day’s activities meant to you.

The journal is to be completed by the person who signs the “Agreement of Confidentiality” included in this package. Please do not report work/activities of other people except where indicated (“who were you working with, column 3). This journal is intended to track only one person on the farm and will make the exercise not useful if there are multiple people completing the journal.

Please return the journal in the envelope provided. Upon receiving the journal we will email you a compensation of \$100 and return the journal after the contents have been recorded and saved on a secure server.

This is an important undertaking and we are grateful for your cooperation. Please be in touch with questions or thoughts throughout this process. Happy journaling!

Gratefully, Kathleen and Stephanie

Appendix D. Focus Group Moderator Guide

This study is being conducted by a team from Penn State's rural sociology department and funded by SARE NE. You have been invited to participate based on your participation as a farm intern or apprentice. Your participation is completely voluntary and you may stop participating at any time you during the process. Your information will be removed and not included in the study. This session will be audiotaped, and the audio transcribed to ensure accurate reporting of the information you provide. The transcriber will be instructed to remove all names and farm names from the transcript. Audio will be save in a locked database with only the primary researcher having access to the file.

Confidentiality

All names and farm names will be removed from the transcript. All findings used in any reports or writing documents will include not identifying information. There are no risks associated with this study. Potential benefits of participating in this group for you could be having an opportunity to descriptive your experience as an intern/apprentice with others. Additionally, the opportunity to connect with others and share similar and divergent experiences may help clarify and validate your experiences. The benefits to society would be based on establishing a clearer understanding of the experiences faced by interns and apprentices and some of the obstacles and benefits of being an intern/apprentice. This information can help the sustainable ag community be more effective, and may provide guidance through lessons learned for internship and apprenticeship opportunities. If you have any questions or concerns about this group or the research project you may contact Kathleen Wood kfw121@psu.edu, 719 671 3509

I will be asking three questions throughout this group session. Everyone's opinion is important. This is a discussion intended to facilitate sharing among all of you. If you have questions or do not understand a topic, I can help clarify. To get familiar with each other, let's go around and share what state(s) you have worked in as an intern/apprentice; what crops you've grown; and your favorite food to eat raw. Let's spend only a few minutes on this so we can get to the questions

FOCUS GROUP QUESTIONS (prompts below the primary question)

- 1) What factors in your experience makes a successful internship/apprenticeship program?
 - What are the key factors for having a successful farm internship/apprenticeship?
 - How important is money for having a successful internship/apprenticeship?
 - How important are the relationships with people on the farm – farm mentor/manager; work crew?
 - How important is the lifestyle on a farm to a successful internship/apprenticeship?
 - How important is diversity (both tasks, crops, learning opportunities) to a successful farm internship/apprenticeship?
- 2) What aspects of your farm internship were unpleasant or negative?
- 3) What characteristics and qualities of a person make a successful intern/apprentice on a farm?

References

- Alkon, Alison Hope, and Julian Agyeman. 2011. *Cultivating Food Justice: Race, Class, and Sustainability*. MIT Press.
- Allen, Patricia. 2004. *Together at the Table: Sustainability and Sustenance in the American Agrifood System*. University Park, PA: Pennsylvania State University Press; Published in cooperation with the Rural Sociological Society.
- Allen, Patricia, Debra Van Dusen, Jackelyn Lundy, and Stephen Gliessman. 1991. "Integrating Social, Environmental, and Economic Issues in Sustainable Agriculture." *American Journal of Alternative Agriculture* 6(01):34–39.
- Allen, Patricia, and Carolyn Sachs. 1992. "The Poverty of Sustainability: An Analysis of Current Positions." *Agriculture and Human Values* 9(4):29–35.
- Alter, Theodore et al. 2007. *Strengthening Rural Pennsylvania: An Integrated Approach to a Prosperous Commonwealth*. Washington: The Brookings Institution. (<http://www.brookings.edu/metro/pubs/ruralpa.pdf>).
- Banaji, Jarius. 1976. "Summary of Selected Parts of Kautsky's." *Economy and Society* 5(1):1–49.
- Barnett, B. 2012. "Growing Knowledge: An Evaluation of Apprenticeships on Small Farms in Western Washington." *Plenum* 1(1):1–11.
- Berry, Wendell. 2004. "The Agrarian Standard." Pp. 23–33 in *The Essential Agrarian Reader: The Future of Culture, Community, and the Land*, edited by Norman Wirzba. Counterpoint.
- Bonnano, Allasandro. 1987. *Small Farms: Persistence with Legitimation*. Boulder, CO: Westview Press.
- Bonke, Jens. 2005. "Paid Work and Unpaid Work: Diary Information Versus Questionnaire Information." *Social Indicators Research* 70(3):349–68.
- Brocki, Joanna M., and Alison J. Wearden. 2006. "A Critical Evaluation of the Use of Interpretative Phenomenological Analysis (IPA) in Health Psychology." *Psychology & Health* 21(1):87–108.
- Brown, Sandy, and Christy Getz. 2008. "Privatizing Farm Worker Justice: Regulating Labor Through Voluntary Certification and Labeling." *Geoforum* 39(3):1184–96.
- Bureau of Labor Statistics. n.d. "American Time Use Survey Summary." Retrieved August 26, 2013 (<http://www.bls.gov/news.release/atus.nr0.htm>).
- Buttel, Frederick H., and Howard Newby. 1990. *The Rural Sociology of the Advanced Societies*. Montclair, US: Alanheld, Osmun and Co.
- Buttel, Frederick H., Olaf Larson, and Gilbert Gillespie. 1990. *The Sociology of Agriculture*. Westport, CT: Greenwood Press, Inc.
- Buttel, Frederick H. 2001. "Some Reflections on Late Twentieth Century Agrarian Political Economy." *Sociologia Ruralis* 41:165–81.
- Čajanov, A. 1986. *A. V. Chayanov Theory of Peasant Economy*. Madison: Univ. of Wisconsin Press.

- Carey, Edward et al. 2006. "The Growing Growers Training Program: An Apprenticeship Program for Market Gardeners Serving Kansas City." *HortTechnology* 16(3):439–43.
- Carroll, D, and Saltz, R. 2008. "NAWS Findings: 1989 - 2007, Immigration Reform: Implications for Farmers, Farm Workers, and Communities." (http://migration.ucdavis.edu/cf/files/conference_may_2008/carroll_saltz-naaws_findings_1989-2007.pdf).
- Cason, Katherine, Anastasia Snyder, and Leif Jensen. 2004. *The Health and Nutrition of Hispanic Migrant and Seasonal Farm Workers*. Harrisburg PA: The Center for Rural Pennsylvania.
- Creswell, John W. 2013. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. 3rd ed. Los Angeles: SAGE Publications.
- Creswell, John W., V. L. Plano Clark, M. L. Gutmann, and W. E. Hanson. 2008. "An Expanded Typology for Classifying Mixed Methods Research into Design." Pp. 159 – 196 in *The Mixed Methods Reader*. SAGE Publications.
- Denzin, Norman K., and Yvonna S. Lincoln. 2011. *The Sage Handbook of Qualitative Research*. 4th ed. Thousand Oaks: Sage.
- Dicks, B., and Mason, B. 1998. "Hypermedia and Ethnography: Reflections on the Construction of a Research Approach." *Sociological Research Online* 3(3).
- Dillman, D. A. 2007. *Mail and Internet Surveys: The Tailored Design Method*. 2nd ed. John Wiley & Sons.
- Elbaum, Bernard. 2009. "Why Apprenticeship Persisted in Britain But Not in the United States." *The Journal of Economic History* 49(02):337.
- ERS. 2001 *2011 Organic Production Survey: Statistics by State*. National Agricultural Statistics Service, USDA. (http://www.nass.usda.gov/Statistics_by_State/Pennsylvania/Publications/Annual_Statistical_Bulletin/2011_2012/Organic_page3.pdf).
- Faugier, Jean, and Mary Sargeant. 1997. "Sampling Hard to Reach Populations." *Journal of Advanced Nursing* 26(4):790–97.
- Foster, R. L. 1997. "Addressing Epistemologic and Practical Issues in Multimethod Research: a Procedure for Conceptual Triangulation." *ANS. Advances in nursing science* 20(2):1–12.
- Frederick, Buttel, Olaf Larson, and Gilbert Gillespie. 1990. *The Sociology of Agriculture*. Westport, CT: Greenwood Press, Inc.
- Friedmann, Harriet. 1978. "Simple Commodity Production and Wage Labour in the American Plains." *Journal of Peasant Studies* 6(1):71–100.
- Galt, Ryan E. 2013. "The Moral Economy Is a Double-edged Sword: Explaining Farmers' Earnings and Self-exploitation in Community-Supported Agriculture: The Moral Economy Is a Double-edged Sword." *Economic Geography* 89(4): 341–365.
- Green, J. C., V. J. Caracelli, and W. F. Graham. 2008. "Identifying the Purposes for Mixed Methods Design." Pp. 119–48 in *The mixed methods reader*. Thousand Oaks, Calif: Sage Publications.

- Guthman, Julie. 2011. "If They Only Knew: The Unbearable Whiteness of Alternative Food." Pp. 263–82 in *Cultivating Food Justice: Race, Class, and Sustainability*, edited by Alison Hope Alkon and Julian Agyeman. MIT Press.
- Heidi Witmer. 2012. "The PA Farmer's Guide to Internship and Employment Law."
- Henderson, Elizabeth, Richard Mandelbaum, Marty Mesh, and Michael Sligh. 2008. "The Agricultural Justice Project: Social Stewardship Standards in Organic and Sustainable Agriculture: Full Standards Document." (http://www.cata-farmworkers.org/ajp/AJP_Standards_5-08.pdf).
- Hendricks, V. M., and P. Blaken. 1992. "Snowball Sampling: Theoretical and Practical Considerations." Pp. 17–35 in *Snowball Sampling: A Case Study in Cocaine Use*. Rotterdam: IVO.
- Hinrichs, C. C. 2003. "The Practice and Politics of Food System Localization." *Journal of Rural Studies* 19(1):33–45.
- International Labor Organization. 2012. *Overview of Apprenticeship Systems and Issues*. Geneva Switzerland.
- Johnston, Josée, and Shyon Baumann. 2009. *Democracy and distinction in the gourmet foodscape*. London: Routledge.
- Jones, Doug. 1999. "Internships in Sustainable Farming: A Handbook for Farmers."
- Kandel, William. 2008. "Hired Farmworkers a Major Input For Some U.S. Farm Sectors." *Amber Waves*, April. Retrieved April 23, 2012 (<http://www.ers.usda.gov/AmberWaves/April08/Features/HiredFarm.htm>).
- Kincheloe, Joe L. 2004. *Rigour and Complexity in Educational Research: Conceptualizing the Bricolage*. Maidenhead: Open University Press.
- Kitzinger, J. 1995. "Qualitative Research. Introducing Focus Groups." *BMJ: British Medical Journal* 311(7000):299–302.
- Kloppenborg, Jack, Sharon Lezberg, Kathryn De Master, George W. Stevenson, and John Hendrickson. 2000. "Tasting food, tasting sustainability: Defining the attributes of an alternative food system with competent, ordinary people." *Human Organization* 59(2):177–86.
- Lévi-Strauss, Claude. 1966. *The savage mind*. Chicago: University of Chicago Press.
- Lobao, Linda, and Katherine Meyer. 2001. "The Great Agricultural Transition: Crisis, Change and Social Consequences." *Annual Review of Sociology* 27:103–24.
- Lucy, Yardley. 2007. "Demonstrating Validity in Qualitative Psychology." in *Qualitative Psychology: A Practical Guide to Research Methods*. SAGE.
- Mares, Teresa, and Devon Pena. 2011. "Environmental and Food Justice: Toward Local, Slow, and Deep Food Systems." in *Cultivating Food Justice: Race, Class, and Sustainability*, edited by Alison Hope Alkon and Julian Agyeman. MIT Press.
- Marx, Karl. 1981. *Capital: a Critique of Political Economy*. London;New York N.Y.: Penguin Books in association with New Left Review.
- McLeod, John. 2001. *Qualitative Research in Counselling and Psychotherapy*. London: SAGE.

- Merril, Lorraine. 2012. "Northeast Agriculture." (<http://www.nera.umd.edu/Sept2012Meeting/Merrill.pdf>).
- Mills-Nova, M. 2011. *Sustaining Family Farming Through Mentoring: A Toolkit for National Family Farm Coalition Members*. Washington DC: National Family Farm Coalition. (http://www.nffc.net/Issues/Local%20Food/NFFC_Mentoring_Report2011.final.pdf).
- Miranda Smith. 2005. "The On-Farm Mentor's Guide – practical approaches to teaching on the farm."
- Mize, Ronald L. 2006. "Mexican Contract Workers and the U.S. Capitalist Agricultural Labor Process: The Formative Era, 1942–1964." *Rural Sociology* 71(1):85–108.
- Monique Nuijten. 2001. "Organization and development: a practice perspective." P. 296 in *Resonances and Dissonances in Development*, edited by Paulus Gerardus, Maria Hebinck, and Gerard Verschoor.
- Mooney, Patrick. 1988. *My Own Boss: Class, Rationality, and the Family Farm*. Boulder, CO: Westview Press
- Naples, Nancy A. 2003. *Feminism and Method: Ethnography, Discourse Analysis, and Activist Research*. New York: Routledge.
- New England Small Farms Institute (NESFI). 2008. *The "On-farm workstays project": On-farm mentors and labor law, year-end report 2008*. (<http://www.smallfarm.org/uploads/uploads/Files/On%20Farm%20Workstays%20Project.pdf>).
- Newby, Howard. 1972. "Agricultural Workers in the Class Structure." *The Sociological Review* 20(3):413–39.
- Occupational Safety and Health Administration. "Safety and Health Topics: Agricultural Operations." *US Department of Labor*. Retrieved April 12, 2013. (<https://www.osha.gov/dsg/topics/agriculturaloperations/>).
- Pfeffer, M. J. 1983. "Social Origins of Three Systems of Farm Production in the United States." 4:540–62.
- Pirog, R. 2000. *Grape Expectations: a Food System Perspective on Redeveloping the Iowa Grape Industry*. Ames, IA. Retrieved (<http://www.leopold/iastate.edu/pubinfo/papersspeeches/grapes2000.html>).
- Portes, A. 1994. "The Informal Economy and Its Paradoxes." Pp. 426–49 in *The Handbook of Economic Sociology*, edited by N.J. Smelser and R. Swedberg. Princeton University Press.
- Powell, M. 2010. "Farm Internship Handbook." (<http://roguefarmcorps.org/wp-content/uploads/2011/11/On-Farm-Internship-Handbook.pdf>).
- Rorabaugh, W. J. 1988. *The Craft Apprentice: From Franklin to the Machine Age in America*. 1st Edition. Oxford University Press, USA.
- Rothschild-Whitt, Joyce. 1979. "The Collectivist Organization: An Alternative to Rational-Bureaucratic Models." *American Sociological Review* 44(4):509–27.
- Saldana, Johnny. 2009. *The Coding Manual for Qualitative Researchers*. SAGE Publications.
- Sbicca, Joshua. 2012. "Growing Food Justice by Planting an Anti-oppression Foundation: Opportunities and Obstacles for a Budding Social Movement." *Agriculture and Human Values* 29(4):455–66.
- Sharon Merriam and Associates. 2002. *Qualitative Research in Practice: Examples for Discussion and Analysis*. Jossey-Bass.

- Shreck, Aimee, Christy Getz, and Gail Feenstra. 2006. "Social Sustainability, Farm Labor, and Organic Agriculture: Findings from an Exploratory Analysis." *Agriculture and Human Values* 23(4):439–49.
- Slater, Don and Fran Tonkiss. 2001. *Market Society: Markets and Modern Social Theory*. Cambridge, U.K.: Malden, Mass: Polity Press; Blackwell Publishers.
- Smith, Jonathan A., Paul Flowers, and Michael Larkin. 2009. *Interpretative phenomenological analysis : theory, method and research*. Los Angeles: SAGE.
- Smith, Peter J. 2000. "Flexible Delivery and Apprentice Training: Preferences, Problems and Challenges." *Journal of Vocational Education & Training* 52(3):483–503.
- Sonnentag, Sabine. 2001. "Work, Recovery Activities, and Individual Well-being: A Diary Study." *Journal of Occupational Health Psychology* 6(3):196–210.
- Story, Mary, Karen M. Kaphingst, Ramona Robinson-O'Brien, and Karen Glanz. 2008. "Creating Healthy Food and Eating Environments: Policy and Environmental Approaches." *Annual Review Public Health* 29:253–72.
- Sue, Valerie M. and Lois Ritter. 2012. *Conducting Online Surveys*. 2nd ed. Thousand Oaks, CA: Sage.
- Tickamyer, Ann, Leif Jensen, David Ader, Tim Slack, and Nina Cesare. 2010. "Gender and Informal Activity in the United States."
- Trauger, Amy. 2004. "'Because They Can Do the Work': Women Farmers in Sustainable Agriculture in Pennsylvania, USA." *Gender Place and Culture A Journal of Feminist Geography* 11(2):289–307.
- U.S. Department of Agriculture. 2007. "USDA - NASS, Census of Agriculture - 2007 Census Volume 1, Chapter 1: State Level Data." Retrieved April 21, 2012 (http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Pennsylvania/).
- U.S. Department of Labor Wage and Hour Division. 2010. *U.S. Department of Labor Wage and Hour Division Fact Sheet #71: Internship Programs Under The Fair Labor Standards Act*. Washington DC. (<http://www.dol.gov/whd/regs/compliance/whdfs71.pdf>).
- U.S. Census Bureau. n.d. *2010 Census Data*.
- Van Velsen, J. 1978. "The Extended-case Method and Situational Analysis." Pp. 129–52 in *The Craft of Social Anthropology*. Transaction Publishers.
- Whatmore, Sarah. 1990. *The Farming Women: Gender Work and Family Enterprise*. Palgrave Macmillan.
- Wright, Wynne, and Gerad Middendorf. 2008. *The Fight over Food: Producers, Consumers, and Activists Challenge the Global Food System*. University Park, Pa: Pennsylvania State University Press.
- Yardley, Lucy. 2007. "Demonstrating Validity in Qualitative Psychology." in *Qualitative Psychology: A Practical Guide to Research Methods*. SAGE.