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***Labor in the Food System
from Field to Table***

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**Inter-institutional
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This issue is sponsored by INFAS, the Inter-institutional Network for Food and Agricultural Sustainability. Thanks to INFAS's generous support, the labor papers in this issue are open access.

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IN THIS ISSUE

PATRICIA ALLEN*

Labor in the food system, from farm to table



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Labor is at the heart of the food system—economically, politically, and ethically. This JAFSCD issue brings concerns about labor economics, politics, and ethics to contemporary food systems praxis. In so doing, we build upon the work of Cesar Chavez, Carey McWilliams, Deborah Fink, Dolores Huerta, Don Villarejo, Frank Bardacke, John Steinbeck, William Friedland, and countless others. Their activism and scholarship, set in an earlier context, has not always translated into the promise of the new sustainable or alternative agrifood movement, which, as **Biewener** states, has often focused more on “good food” than “good jobs.” As someone who has worked as a farm laborer, food factory worker, and food service worker and written about social justice, racism, labor, gender, and localism in sustainable and alternative food systems for more than 25 years, I am honored to introduce the work of scholar-activists in this journal issue.

The articles collectively address a wide range of labor issues, and in this introduction I highlight three themes that emerge: the need to see labor issues and solutions as social rather than individual problems; the reproduction of disenfranchisement; and the need to create new political economic systems. The articles in this issue demonstrate in a number of ways that labor problems are not so much the result of individual choices, but rather part of an entire system that extracts value from those who are the most vulnerable and allocates it to those who are the most powerful. Nowhere is this seen more clearly than in the agrifood system, where jobs are low-wage, dangerous, and contingent. Workers are often treated as instrumental factors of production and are commodified (**Clayton, Ikerd**) rather than as people with feelings, intellect, and aspirations.

Labor conditions have been produced socially through public policy, public funds, and discursive practices of racism. They are the heritage of practices of slavery, indentured servitude, and entrepreneurial

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Patricia Allen directs a low-residency Master of Science program in Food Systems and Society that concentrates on social justice and social change in the food system (<http://www.marylhurst.edu/food>). Her work on race, class, and gender; discourse; localism; and social movements has been published in numerous journal articles, *Food for the Future: Conditions of Contradictions of Sustainability* (1993), and *Together at the Table: Sustainability and Sustainance in the American Agrifood System* (2004). She is a past chair of the Inter-Institutional Network for Food and Agricultural Sustainability (INFAS) executive committee.

exploitation. They are compounded in farm fields, a result in part of an agricultural exceptionalism framework (**Weiler et al.; Rodman et al.**), through which regular labor laws and standards do not apply to farm labor. Vulnerability for workers has been produced by the lack of labor regulations and the use of programs that import workers while limiting their agency. **Rodman et al.** review the laws and programs that facilitated the supply and exploitation of cheap workers in the U.S. and discuss ways in which the state helps growers to secure laborers who are unlikely to demand better wages and working conditions. **Weiler et al.** discuss the Canadian Seasonal Agricultural Worker Program (SAWP) and Temporary Foreign Workers Program (TFWP) that manage foreign agricultural workers. The need for workers in agriculture is a permanent condition, yet the workers themselves are temporary, creating a condition of *permanent impermanence* for workers in which they are always vulnerable and uncertain.

We learn in this issue how the reproduction of power and privilege on the one hand and disenfranchisement on the other continues in research and public policy. **Calo and De Master** point to ways in which University of California researchers developed systems to eliminate workers. **Clayton** discusses how public research and regulations on food safety are framed. In both cases, who is considered an “expert” (often biophysical scientists and engineers) and whose priorities are valued determines how problems are defined and solutions recommended. Where workers are not consulted, knowledge and policy cannot take into account the circumstances, motivations, and aspirations of those at the point of production. In the case of food safety, this is dangerous for workers and consumers alike. These articles demonstrate the degree to which foundational ontological (what we see) and epistemological (ways of acquiring knowledge) orientations matter.

One way to diversify ontologies and epistemologies is through working more directly with the less powerful through participatory action research. While this is an important approach, it is also not a panacea. **Levkoe et al.** discuss the promises and pitfalls of academic/activist collaborations, including the tensions of collaboration and critique when working with organizations and groups who must function in the “real” world, while academics’ role is often to work in the world of ideas and possibilities. In the case of contentious issues in particular, working in partnership may tend to suppress knowledge advancement and criticism.

Further, the contingency and vulnerability that have been produced limit the ability of workers to have agency and voice in research. This results in a relative lack of data and knowledge about workers and their working conditions (**Rodman et al.; Weiler et al.**). This vulnerability affects the health of workers and food safety. **Courville et al.** illustrate how the piece-rate system drives workers to work as long and as hard as they can without regard to personal health so they can maximize income and be seen as “good workers.” **Clayton et al.** and **Rodman et al.** elaborate how structural conditions affect self-care in the circumstances in which farmworkers have few if any choices. This invisibility and lack of voice of farmworkers (**Erwin**) has created an underclass of people without ability to move freely and advocate for rights.

How can people organize or advocate when structural conditions make it so their main job is to not be seen? Throughout history, social movements are the vehicle through which disenfranchised people have created social progress. But for a social movement to build, problems must be collectively identified and understood. Online fora and social media have been demonstrated to bring together people who otherwise would not necessarily have the opportunity to come together. **Hunt** highlights the active resistance of tipped food workers who use an online forum to share their lived experiences being taken advantage of, harassed, and even physically abused in the workplace. In so doing they bring recognition to the conditions they face and encourage public discourse and remedies through public policy.

Ikerd entreats us to value both work and workers. The articles in this issue that discuss small organic farms and apprenticeships illustrate that in these newer agrifood institutions, work is certainly valued, but workers perhaps not so much. As much as we might like to think otherwise, we cannot assume that farmers and workers share motives and interests. **Ekers and Levkoe** show that, for example, farmers may prioritize ecology over labor justice; **Lo and Delwiche** discuss tensions between small farmers and workers rights; and **Rodman et al.** remind us that organic growers have opposed minimum wage and health and safety standards

for agricultural workers. Thus the privileging of some and disenfranchisement of others, such as workers, can be reproduced in new agrifood systems. **Erwin** reminds us that labor injustice persists not only on “industrial” farms, but on local, small, and organic farms as well, and that this reality needs to be addressed by those working in the alternative agrifood movement.

Articles in this issue that focus on the labor relations of apprenticeships show that both farmers and apprentices are overwhelmingly European American and, apprentices at least, must have a level of economic privilege to be able to afford to work for only a small stipend (**Biewener; MacAuley and Niewolny**). To be an intern or apprentice you already need to have resources that can mitigate the low or no wages or health benefits. **MacAuley and Niewolny** point out that practices in new agrifood systems can create an unreflective reproduction of existing power relations. They can also privilege and romanticize farm labor over other forms of agrifood labor, which account for the vast majority of jobs in the food system. One does not hear about internships for processing-plant workers or food-service workers, for example. Sociocultural factors are also at play in the ways they condition and determine opportunities in which very few farmworkers are able to become entrepreneurs while the vast majority do not (**Pisani and Guzman**).

So, what to do to change agrifood labor systems in the face of history, public policies, and sociocultural traditions? For **Erwin**, norms and social structures must be addressed and changed at levels ranging from the individual to the institutional. **Weiler et al.** discuss incremental reform and structural change and suggest steps toward amelioration while we simultaneously work toward a better system. An example of an incremental reform is the suggestion of **Berkey and Schusler** that organizations collectively provide benefits and support to workers because they can do so at lower costs than individual employers could.

As we work toward larger changes, for **Calo and De Master** it is clear that structural barriers cannot be addressed with individualist strategies. One market-individual-based approach, for example, suggests that if farmers earned more they would pay their workers more. However, **Yamashita and Robinson** point out that food retail sales have increased, but worker wages are down. Thus we cannot assume that increased income for farmers would translate into increased income for workers, particularly if farmer income is already low. And **Weiler et al.** point out that in a highly competitive market for agricultural goods, the need to compete on price creates a condition in which farmers try to minimize labor costs in order to maintain viable economic enterprises.

Accordingly, several articles in this issue highlight structural and policy approaches and steps that can be taken now to address the social justice in the food system of which labor is a major part. As we work toward the larger-scale changes necessary for fair labor conditions and compensation, there are promising incremental changes. For example, while the power of personal purchasing decisions to change the food system is weak (**Yamashita and Robinson**), public, large-scale purchasing can be more effective. An excellent example of this is the Good Food Purchasing program in the Los Angeles Unified School District described by **Lo and Delwiche**. Representing US\$150 million in value, this program combines market and policy approaches to set five standards for purchasing: local economies, environmental sustainability, valued workforce, humane treatment of animals, and health and nutrition. Through this program, public funding is being used to support workers as well as other values of the alternative food movement. **Freudenberg et al.** analyze efforts to create good food jobs that meet multiple goals of increasing employment, promoting access to healthy food, and improving job quality, and offer six strategies city governments and collaborators for developing, bringing to scale, and sustaining good food jobs. These are examples of **Ikerd’s** call to restrain the economic system.

While these promising projects are calling attention to issues and making significant progress in labor conditions, they also demonstrate intersectoral tensions and illustrate why large-scale systemic changes are necessary. **Calo and De Master** as well as **Biewener** suggest cooperatives as a form of economic organization. Looking at the fundamental problem of inequitable land ownership, **Calo and De Master** point to land-tenure reform as a solution as well. These are not topics generally considered in the alternative agrifood movement. Being able to imagine and consider systemic change requires engaging the critical food

literacy that **Yamashita and Robinson** address. For them, this involves learning about and understanding the sociopolitical contexts and factors that shape the agrifood system and acting against injustice. Through critical food literacy we can think more deeply and clearly about the food system, dissolving some traditions and categories of thinking and opening up others in working toward a better system for food labor. For example, while small scale has been a central principle of the movement, as discussed above it means recognizing and accepting that small farms may facilitate better ecological practices but not necessarily better labor practices. **Lo and Delwiche**, for example, point out that there are often better wages, benefits, and rights for workers in large-scale enterprises than in small-scale operations.

In the same way, while we make changes as we can, it is also the case that the changes required go beyond the agrifood system itself. As a specific example of this, **Erwin and Rodman et al.** show the ways in which the North American Free Trade Agreement (NAFTA) affected agriculture in Mexico in such ways that some people could no longer earn a living at home and many migrated as workers to the U.S. And, beyond global food politics, we must also address and change the systems from the individual to global scale that reproduce privilege and oppression through discursive practices and policies of racism, sexism, classism, and xenophobia in everyday life.

The articles in this issue represent the scope of labor on labor—scholarship, action, reflection. This iterative and recursive process is essential to avoid reproducing the problems of the past as we address proximate as well as systemic problems and solutions in agrifood labor. **Lo and Delwiche** demonstrate the importance of collaboration in working through theory to action to reflection in creating and maintaining a shared vision for and implementing change.

We must look to the world that is possible, breaking out of constrained ways of thinking. That we need to think in terms of “what if” scenarios, as **Yamashita and Robinson** suggest in their article on critical food literacy. The authors also demonstrate that the agrifood system is not “broken” (a phrase we often hear). Indeed, it functions well for those with power and privilege, as it has been designed to do. It does not need to be “fixed,” but reconfigured in its entirety. Solutions need to critically engage political economic structures and cultural traditions while we work on ameliorative measures to improve labor conditions in present time. However, rather than “making do” with the systems, traditions, and practices we have inherited from the past, we must *remake* the world of work, valorizing and valuing agrifood labor. 



THE ECONOMIC PAMPHLETEER
JOHN IKERD

Rethinking the value of work

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“How can it be that more than a century after Mumcrakers exposed the deplorable conditions of workers in the food system, that harassment of workers, rapes in the fields, squalid living conditions, pesticide showers, hazardous working conditions, and slave wages continue be the norm?” (Kolodinsky, 2014, p. 198). In reviewing the documentary film *Food Chain*, Jane Kolodinsky provides this fitting description of the inevitable consequences of the commodification of labor in an unrestrained market economy.

The deplorable working conditions in the food

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industry have not been corrected because such conditions are inherent in the industrial system of food production. More effective labor unions and ethical choices by consumers might relieve some of the suffering—at least temporarily. However, the well-being of workers in the food industry and elsewhere will not be significantly improved until we rethink the value of work and restrain our economic system accordingly.

The most basic function of a free-market economy is to allocate land, labor, and capital among alternative uses so as to maximize consumer utility or satisfaction. Anything that

*Why an **Economic Pamphleteer**? Pamphlets historically were short, thoughtfully written opinion pieces and were at the center of every revolution in western history. I spent the first half of my academic career as a free-market, bottom-line agricultural economist. During the farm financial crisis of the 1980s, I became convinced that the economics I had been taught and was teaching wasn't working and wasn't going to work in the future—not for farmers, rural communities, consumers, or society in general. Hopefully my “pamphlets” will help spark the needed revolution in economic thinking.*

needlessly increases the cost of food to consumers inevitably decreases economic efficiency and leads to decreased consumer satisfaction. If food retailers agree to pay a penny a pound more for tomatoes to improve the pay or working conditions for farm workers, for example, they expect to pass the cost increase on to consumers—and will likely add another penny for profits. This will raise tomato prices for consumers, including those who don't know or care about the plight of farmworkers, thus decreasing overall consumer satisfaction.

Furthermore, the willingness of some consumers to pay more for the same tomatoes is “economically irrational,” since presumably there will be no tangible differences between tomatoes produced under favorable and unfavorable working conditions. This leaves the fate of farmworkers to be determined by economically irrational consumers who can afford to pay more for tomatoes. “Free choice of employment,” “just and favorable conditions of work,” and “remuneration ensuring...an existence worthy of human dignity” (United Nations, 1948, Article 23) are basic human rights, according to the United Nations Declaration of Human Rights—which the U.S. refuses to endorse. Rights are not privileges to be granted at the discretion of employers or wealthy consumers. Rights depend on social justice—not economics. Economies afford no more respect for the “rights” of workers than for the “rights” of land or capital. They are all just factors of production.

Furthermore, market economies function to meet our needs as consumers, not as workers or as members of society. Whatever economic value we receive from our work is realized only by consuming or using what we buy with the money we earn from working. Whatever we sacrifice as workers must be compensated by the benefits we receive as buyers or consumers. Unfortunately, those who benefit most as consumers are rarely the same

people who sacrifice most as workers. In addition, the lack of economic completion in today's market economy allows some to extract profits from the system rather than reward workers for their efficiency or pass the savings on to consumers. Publicly traded corporations, being *rational* economic entities, have no incentive to do anything for the benefit of workers or consumers unless it adds to their economic bottom line.

The food industry clearly has an economic incentive to minimize labor costs, regardless of who benefits and who pays. According to the U.S. Department of Agriculture (USDA), “wages, salaries, and contract labor expenses represent roughly 17 percent of total variable farm-level costs and as much as 40 percent of costs in labor-intensive crops such as fruit, vegetables, and nursery products” (USDA, ERS, n.d., para. 1). The nonfarm sectors of the food system are even more labor-intensive, resulting in labor costs accounting for roughly 50 cents of each food dollar of U.S. consumers. So, it is naïve to expect industrial farmers or food corporations to gratuitously increase the compensation of farm or food industry workers, or to willingly grant workers their basic human rights.

The fundamental problem is a failure of society to recognize the full value of work. In capitalist economics, work is considered to be inherently unpleasant or distasteful. The money gained from working is the only reward for giving up the alternative of enjoying leisure. Work would never be willingly undertaken without some offsetting economic compensation. In economic thinking, there is no recognition of any positive value of work apart from the economic value derived from the consumer market value of whatever is produced.

While people should expect to work in order to meet their basic needs, even if the economic remuneration is meager, work can also produce social and cultural value. Yet economics gives no

It is naïve to expect industrial farmers or food corporations to gratuitously increase the compensation of farm or food industry workers, or to willingly grant workers their basic human rights.

consideration to the fact that work helps give purpose and meaning to life. The sense of dignity arising from meaningful work can translate into a sense of self-worth that goes far beyond survival or subsistence. The admiration and respect granted by fellow workers, employers, or customers for a job well done may far outweigh any additional economic compensation. Many workers actually enjoy their work. Many more undoubtedly would do so if they were afforded their basic human rights to free choice of employment, just and favorable work conditions, and remunerations sufficient to ensure an existence worthy of human dignity.

To break the bonds of economic slavery, we must value humans as multidimensional beings, not biological machines. We are social beings capable of receiving tremendous *personal* value from positive human relationships—even relationships that produce nothing of economic value. We are spiritual beings capable of receiving tremendous *ethical* value from a life of purpose—including our life of work. Work is not a burden but a privilege, at least when performed under conditions that respect our basic human rights as workers.

Work is not a burden but a privilege, at least when performed under conditions that respect our basic human rights as workers.

We are not just consumers; we are also thoughtful, caring workers and responsible members of society. Our preferences as consumers cannot be allowed to take priority over our rights as workers and global citizens. All workers, not just farmworkers and food workers, will continue to work under conditions of economic slavery until our market economy is forced by civil society to recognize and respect the full economic, social, and cultural value of work.

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DIGGING DEEPER

Bringing a systems approach to food systems

KATE CLANCY

The many uses of a new report on food systems assessments

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A new contribution to the efforts to bring a systems approach to food systems work is the report *A Framework for Assessing the Effects of the Food System* (Institute of Medicine [IOM] & National Research Council [NRC], 2015a). It was released a year ago and became available for purchase in June 2015. I was a member of the committee that prepared and wrote the report under the auspices of the Institute of Medicine and the National Research Council and I want to

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highlight in this column what I see as the report's multiple uses.

The task presented to the committee was to propose a framework that could be utilized by researchers and stakeholders to assist in food and agriculture decision-making. We were also asked to provide examples of current food system issues for which there are present and future alternatives, and for which the utilization of the framework could be helpful in decision-making. The charge was to develop the framework and not to do any actual analyses of a particular issue.

The framework is intended to be used by researchers and practitioners, but the report is directed to policy-makers and others who must consider a broad range of effects in order to enact useful and relevant laws and regulations. Recognizing that decisions about food policy and practices have both negative and positive unintended effects, the framework offers “guiding principles and practical steps to help stakeholders weigh tradeoffs and choose policies that integrate benefits and risks across various domains” (IOM & NRC, 2015b, p. 1).

The report follows on two others: *Exploring Health and Environmental Costs of Food* (2012), by the IOM and NRC, and *Toward Sustainable Agricultural Systems in the 21st Century* (2010), by the NRC. Echoing the latter report, the framework committee agreed that “the transformative approach to improving agricultural sustainability... would facilitate development of production approaches... associated with complex natural systems and their linked social, economic, and biophysical systems” (NRC, 2010, pp. 525–526). To develop robust solutions for these challenges, the group also believes it is important not only to identify the effects of the current system, but also to understand the drivers of those effects, including human behavior, market dynamics, and policy issues. Such understanding can help decision-makers identify the best opportunities to intervene and allow them to anticipate potential consequences.

The committee began its work with the recognition that policies or actions that aim for an outcome in one area of the food system can have a range of consequences, often substantial, in other domains. The proposed framework will help identify these unintended effects, as well as promote transparency among stakeholders; improve communication and understanding of differing values and perspectives among scientists, policy-makers, and other stakeholders; and decrease the likelihood that results of a policy analysis might be misinterpreted.

The report is quite long and complex, but thereby offers multiple uses, according to users’ needs.

1. The first, obviously, is the framework’s use as an assessment tool. It follows the six steps common to assessments, from identifying the problem to reporting the findings. The conceptual illustration of the framework includes four key domains of the food system (environmental, health, social, and economic), along with four

dimensions (quality, quantity, distribution, and resilience) within each domain; systems concepts; and data, metrics and methods.

It then offers four principles that guide the steps of the analysis: (1) consider effects across the full food system; (2) address all domains and dimensions of effects; (3) account for system dynamics and complexities; and (4) choose appropriate methods.

2. The second use is as an educational tool for training students and others in complex systems and the utility of frameworks. There is a separate chapter describing food as a complex adaptive system, and the framework chapter includes a description of multiple systems concepts that need to be applied, as well as a variety of models for conducting comprehensive assessments and executing other useful exercises. Appendix B comprises 40 pages of tables featuring

selected metrics, methodologies, data sources, and models for assessing effects. Other models appear in different parts of the report. For example, life-cycle analysis is described in the environmental effects chapter.

3. The third use is in teaching food systems. While the overview and effects chapters are not intended to be comprehensive, they are heavily referenced and cover a wide swath of the literature on the evolution of the food system and its health, environmental, social, and economic effects at the present time in the U.S. Time and resources precluded addressing many of the issues in the global food system, but in a number of places global issues are described. These chapters should be useful in food systems courses, and we have heard many reports of this already.

The committee utilizes the broadest definition of food systems, which places the food supply chain within a much larger biophysical, social, and economic institutional context. Each chapter concludes with examples of how the multiple domains interact with each other, so that students can start

To develop robust solutions for these challenges, it is important not only to identify the effects of the current system, but also to understand the drivers of those effects, including human behavior, market dynamics, and policy issues.

seeing how the domains are connected and why they should be observed and studied simultaneously. We did make clear that we understand that only some comprehensive assessments will be undertaken by researchers due to limited time and resources, but at a minimum an analysis should be done to determine the boundaries at the beginning of a study, and questions should be asked regarding all the different domains and dimensions before deciding on a final study design.

4. Reports from readers so far tell us that the examples chapters are very helpful in illustrating how the framework can be used to understand real-world issues and to illustrate many of the principles and concepts from the other parts of the report. Francis and Swoboda (2016) suggest in their review of the report in this journal that the examples reflect short-term thinking, but I disagree, because if the problems and issues raised in the examples are taken into account they offer a very long-term view of the challenges and the type of systems thinking that needs to be put to solving any of these “wicked problems.”

5. The first application of the report that came to our attention was in strategic planning undertaken by groups in Seattle, King County, and Washington state, who were engaged in efforts to enhance local, regional, and state food system activities. The organizers were asking themselves what type of approach could capture a full range of systems factors, adaptations, and outcomes. The IOM and NRC report proved quite helpful to them in identifying systems approaches, and greatly enriched their strategic and tactical planning (Otten, 2015). I believe that many other practitioners, nonprofit organizations, and funders can benefit from exposure to the framework.

6. Given the report’s emphasis on effects and its intent to be useful to policy-makers and policy researchers, it is not surprising that myriad examples of specific policies can be found throughout, including policies related to beginning

farmers, commodity subsidies, the U.S. Department of Agriculture’s Conservation Reserve Program (CRP) and Conservation Stewardship Program (CSP), environmental pollutants, concentrated animal feeding operations (CAFOs), pesticides, soil conservation, water and air quality, health insurance, foodborne illness, food workers’ health and safety, Supplemental Nutrition Assistance Program (SNAP), food security, food advertising, and many others.

Policy is also the focus of the several recommendations made by the committee. One is that Congress and agencies continue funding and supporting the collection of data that can be used in food systems assessments and other studies, and enact new data-collection mandates when needed. Federal efforts to support data sharing and public-private collaboration on data availability should also be increased. The second is that federal agencies should have the analytical capacity to undertake assessments using principles of the framework as

they consider domestic and global consequences of proposed policy changes. This means training scientists in academia, the private sector, and government agencies in systems approaches and the use of models.

I believe that the report offers instruction and insight into a large number of the new tools and ideas needed to understand and address pressing food systems issues. I encourage researchers and practitioners to adopt the elements that are most useful to them, thereby enhancing and advancing the systems thinking that will lead to a more resilient future.

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The report proved quite helpful to practitioners in Seattle, King County, and Washington state in identifying systems approaches and greatly enriching their strategic and tactical planning.

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Food safety and food security: Mapping relationships

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Abstract

Food safety regulations designed for industrial-scale food producers can create insurmountable challenges when applied to small-scale food producers. These challenges can make for a frustrating environment for food consumers, producers, and regulators, at times leading to tensions between food producers and people working in food safety. The objective of this study was to identify ways to reduce these tensions and

promote intersectoral collaboration. We used concept mapping, a structured, participatory, mixed-method approach, to solicit ideas and synthesize input from those working in food safety and food security. We sent invitations to 96 individuals working in food safety or food security, and 50 completed the online concept mapping. Twenty-three participated in categorizing and ranking all the resulting statements. The findings were ‘mapped’ into six clusters: (1) communicating, (2) understanding intent, (3) educating, (4) understanding risk and regulation, (5) recognizing scale, and (6) enhancing partnerships. We further reduced these six clusters into three categories: “relationships,” “education,” and “context.” Although there are no quick or easy ways to ease tensions between those working in food safety and food security, we suggest four practical ways to ease tensions to ensure safe and accessible food: (1) a collaborative group at a high regulatory level that shares authority is needed; (2) building relationships across disciplines should be considered as part of public health work; (3) regulatory documents should be written in plain language; and (4) food safety regulations should account for differences in scale of production with supportive resourcing.

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Keywords

concept mapping, food safety, food security, public health, regulations, small-scale production

Introduction and Background

Consumers increasingly are reporting their interest in purchasing food close to home from small-scale businesses rather than from large companies (Buckley, 2015; Dodds et al., 2014). However, local food supplies typically lag behind demand, in part because of the need for long-term, stable funding for community food projects (Mount et al., 2013). A primary barrier is that food safety regulations designed for industrial-scale food producers create all but insurmountable challenges when applied to small-scale food producers (McMahon, 2011). Community farms struggle to implement food safety programs designed for industrial-scale operations, resulting in consumers seeing the food as “less ‘food safe’” (Hughes, 2010, p. 6). Little attention is given to the way that regulations and policies inhibit local food production (Goldberg, 2012). Even less attention is given to those who are expected to enforce these regulations. Positive interactions between people working in food safety and people who produce food can improve both compliance with food safety regulations and processing operations (Buckley, 2015). We argue that in order to improve access to safe and healthy local food, the people who produce and consume food and those who create and enforce food safety regulations need to understand each others’ perspectives better.

This paper presents results from the first author’s doctoral dissertation. Martin (2014) examined how people enforcing food safety regulations that are legislated and mandated by the provincial and federal governments in Canada interact with people supporting local food initiatives, such as farmers markets, community kitchens, and urban agriculture. These types of initiatives fall under the umbrella of community food security, defined as a situation where community residents can obtain safe, culturally appropriate, and nutritionally adequate diet through a sustainable food system (Hamm & Bellows, 2003). This is the definition adopted by the British Columbia (BC) Ministry of Health’s

Food Security Core Public Health Program, which highlights supporting a sustainable food system through small-scale agriculture. Rideout, Seed, and Ostry (2006) conceptualize food security from a narrow definition of hunger, to a broad view of structural issues. In this paper we adopt the broad view using the term community food security.

Martin (2014) asked two main questions in this study: (1) how are the intersecting areas between food safety and community food security negotiated, and (2) what are the facilitators and constraints to collaboration? She used both situational analysis (Clarke, 2005) and concept mapping (Kane & Trochim, 2007). The results of the situational analysis indicate that food safety regulations are not created primarily to protect people from unsafe food, but are a vehicle for providing confidence in the market and among international trading partners (Martin, 2014). In this paper we report the concept mapping results.

Food Safety

Foodborne illness is the largest class of emerging infectious diseases in Canada (Weatherill, 2009). The Public Health Agency of Canada reports that over 30 pathogens cause 4 million episodes of foodborne illness annually (Thomas et al., 2013). Microbes responsible for outbreaks are increasing in strength (Nestle, 2003). In spite of efforts to reduce foodborne illness, rates have risen over the past ten years (Morris, 2011). The need for a robust health protection service is clear.

Numerous authors suggest that industrial, “factory” food production systems, which necessitate overuse of antibiotics in animals, are a threat to a safe food supply (Buckley, 2015; McMahon, 2011; Nestle, 2003; Worosz, Knight, Harris, & Conner, 2008). To deal with the increasing threat posed by industrial food production, regulators introduced science-based rules and controls to stem the flow of foodborne disease rather than requiring industry to reduce the scale of food production. If we assume that all foods of animal origin (i.e., meat, dairy products, and eggs) present similar risks, then it is reasonable to expect that one set of regulations would provide adequate protection from foodborne illness at any scale of food production. However, the animal is not

necessarily the problem as much as is the production method.

Conflicts in Food Safety and Local Food

In 2004 the BC Ministry of Health made changes to the Meat Inspection Regulation section of the Food Safety Act (“Food Safety Act Meat Inspection Regulation,” 2004), leading to concern among people working in community food security. The intent of the BC Meat Inspection Regulation change was to standardize meat production in the province, protect public health, and foster confidence in the BC food supply (McMahon, 2011). However, impacts of the new regulations on small-scale producers included higher slaughter costs, lower profit margins, lost revenues, loss of farm status, and reduced livestock production (Johnson, 2008). The resulting lack of product made it difficult to source locally produced meat and constituted a serious economic impact on producers and their rural communities. The changes in the meat regulations resulted in a loud outcry in the community food security world, fueling overall cynicism toward food safety regulations.

Other parts of Canada and other countries have experienced similar conflicts between food safety regulations and food producers. A small-scale Manitoba farmer received a provincial government award for pastured pork prosciutto, yet months later had the product confiscated by health inspectors claiming it was unfit for human consumption (Anderson, 2013). Customers and the farmer were frustrated by the destruction of five years’ worth of product without any testing for contaminants (CBC News, 2013). In Brazil food safety regulations have blocked traditional food production, hampering revitalization of rural areas (da Cruz & Menasche, 2014). In the state of Michigan, small-scale producers in the red meat sector have encountered challenges implementing food safety plans and have had to navigate inconsistent food safety rule interpretation by regulators (Worosz et al., 2008).

The purpose of this research was to examine how professionals working in both food safety and community food security initiatives, along with civil society members, work across differences to support a safe and accessible food supply. The

objectives were to identify the source of tensions in this aspect of the food system, and identify ways to improve collaboration.

Methods

We used concept mapping methodology to identify ways to ease tensions between those in food safety and those in community food security. Concept mapping is a participatory process using both qualitative and quantitative analysis and allowing for diverse groups to contribute unique and varied perspectives on a specific issue. This method enables people to describe ideas in response to a question or statement (called a “focused prompt”), which translates to maps for visual representation, providing insight to practical approaches on a focused issue (Trochim, Cabrera, Milstein, Gallagher, & Leischow, 2006). Participants not only contribute their responses to the research question, but also add to analysis by sorting and ranking all the responses. Group concept mapping is an online data collection platform developed by Concept Systems Incorporated. Details of concept mapping are available elsewhere (Kane & Trochim, 2007; Trochim, 1989), but we describe the basic components below.

Sample Selection

We obtained institutional human subjects research approval prior to study recruitment. We invited a wide range of participants involved in food safety and community food security, including national representatives of public health inspectors, community food security activists, food producers, public health officials, and interested academics, through an initial contact list of 96 people known to be working in community food security or food safety and who were engaged with various networks. This included people working in BC health authorities and provincial agencies, Toronto Public Health, provincial food security networks in Canada, Food Secure Canada, the Canadian Institute of Public Health Inspectors, the Canadian Food Inspection Agency, the BC Food Processors Association, and the BC Association of Farmers’ Markets, as well as people in various academic settings, including the Canadian Association for Food Studies. The invitation directed participants

to a website for online data collection. We also invited people to share the link with anyone they thought would be interested in participating.

Brainstorming, Rating and Sorting

We asked participants to respond online to what Kane and Trochim (2007) call a focused prompt. This is the first part of a sentence that allows participants to brainstorm ways to solve an issue. Our focused prompt was regarding ways to work better together: “The best way to ease tensions between those working in food safety and food security is...” Participants logged on to the site and could enter as many responses as they liked. All responses were anonymized and visible to other participants, allowing for one person’s ideas to spark another’s, mimicking what may happen in a focus group. The benefit of the online system is that everyone was free to make their statements without fear of criticism or controversy (Trochim, 1989). Fifty people submitted statements in response to the focused prompt. After participants submitted their response statements, they were invited back to sort all unique statements into categories of their own choosing, and to rank statements on dimensions of importance and feasibility using a 5-point Likert scale (1 = not at all important, 5 =

extremely important; 1 = not at all feasible, 5 = extremely feasible). Twenty-three participants completed the sorting (seven of whom identified as working in food safety); 22 rated the statements on importance and 21 rated the statements on feasibility. Kane and Trochim (2007) report that typically 10 to 40 people participate in concept mapping, providing a variety of opinions and that this number

is adequate to form a good framework.

Statistical Analysis

The Group Concept Mapping platform includes all aspects of the method, including analysis and generation of results in the form of maps. The information from sorting statements creates a similarity matrix, and the statements are then plotted on a map using nonmetric multidimensional scaling (MDS) (Trochim, 1989). As is typical for concept mapping, we used two dimensions in order to produce X, Y coordinates suitable for visual representation on a two-dimensional surface (Figure 1). The maps, also known as point maps or scatter plots, position statements close together if many participants grouped them in the same categories, and far apart if few or no participants grouped them together (Kane & Trochim, 2007).

Based on the point map, statements were combined into clusters using hierarchical cluster analysis that partitions the configuration into non-overlapping clusters in two-dimensional space, called a cluster map (Trochim, 1989) (Figure 2). The cluster shapes are defined by the point map. Cluster colors are randomly assigned by the software program. We considered how many clusters there should be based on what seemed to

Figure 1. Point Map of Participants’ Statements (N=60)

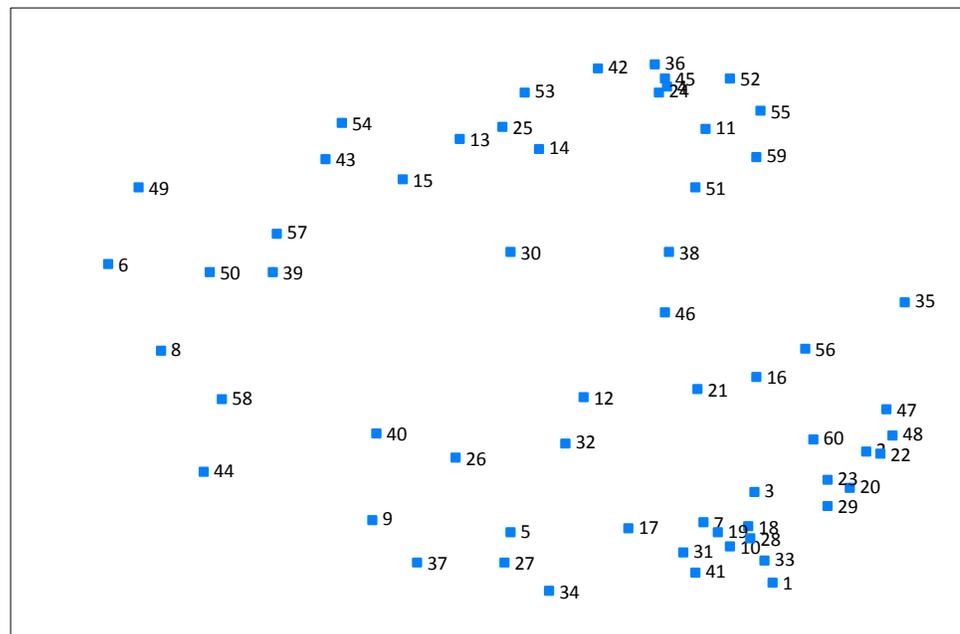
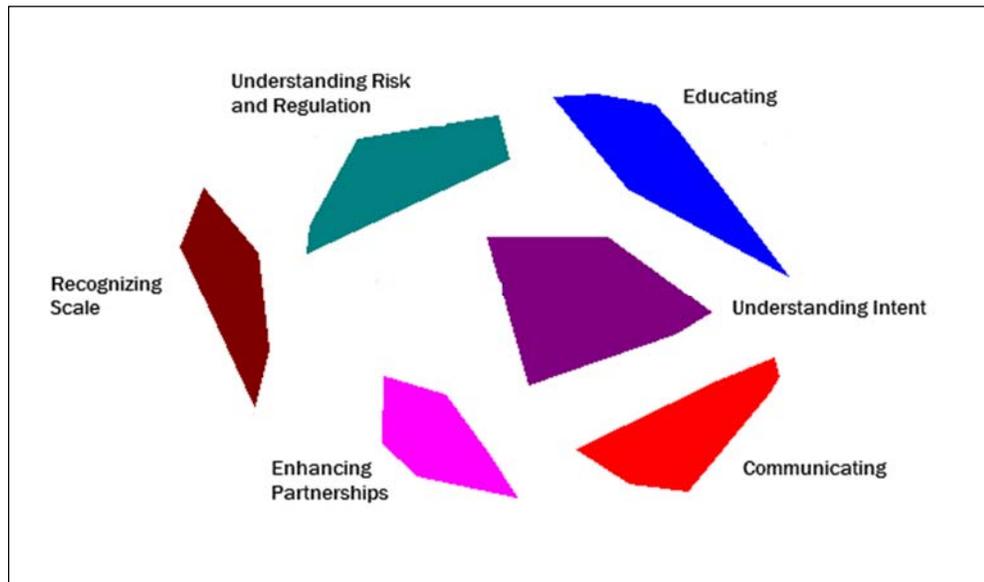


Figure 2. Cluster Map Based on Point Map (Figure 1)



provide the most complete picture of the ideas reflected in them. We asked ourselves if statements in each cluster were better grouped together or if they made more sense when divided.

The “stress index” is the statistic in MDS analysis that indicates goodness-of-fit of the two-dimensional configuration to

Table 1. Demographics of Participants in Concept Mapping (N=50)

Question	Answer	No. of Responses
Province	Ontario	6
	Saskatchewan	4
	Alberta	2
	British Columbia	36
	USA	2
Work Area	Food Safety	17
	Food Security	33
Work Level	Federal/National	3
	Provincial/Territorial	18
	Municipal and/or Regional	21
	Student	2
	Other	6
Work Sector	Government	16
	Nongovernmental Organization	17
	Private Sector	3
	Academic/University	4
	Health Service Delivery	10
Work Type	Public Health Practice	18
	Policy	1
	Administrative and/or Management	5
	Advocacy	11
	Student	2
	Research	3
	Other	10

the original similarity matrix (Kane & Trochim, 2007). A low stress value suggests a better fit. Trochim and colleagues (2006) specify that approximately 95% of concept mapping projects have a stress value between 0.205 and 0.365. The stress value for this data set is 0.239, which indicates that results were well within the expected range. This means that the two-dimensional point map is a good reflection of how participants grouped the statements.

Results

Of the 50 participants who submitted statements in response to the focus prompt, two-thirds listed food security as their primary area of work. The larger proportion of food security versus food safety participants should not affect the findings, as sufficient numbers from each group participated and results are averaged such that contributions from each group carry the same weight (Table 1).

Brainstorming resulted in 60 unique statements and six clusters of

ideas (Figure 2). Participants contributed to naming the clusters, which are (1) communicating, (2) understanding intent, (3) educating, (4) understanding risk and regulation, (5) recognizing scale, and (6) enhancing partnerships. The highest rated statements for each cluster are in Table 2. The following are brief descriptions of each cluster.

Communicating emphasized the importance of finding common ground and language to enhance communication between the two groups. Participants expressed the value of meeting face-to-face to have direct dialogue, starting on a regional level

within BC's regional health authorities, and then broadening the discussion to include farmers and community food security activists. Some participants suggested recognizing that food safety and community food security work are interdependent could improve communication.

Understanding Intent implied that participants perceive a lack of common understanding between the two sectors about what "food safety" and "community food security" mean, or that each group feels that the other does not fully understand the scope and purpose of their work. Statements

Table 2. Highly Rated Statements by Cluster

Cluster Name (No. of Statements)	The best way to ease tensions between those working in food safety and food security is...	
<i>Communicating</i> (19 statements)	...to find the common ground. Both are essential and mutually compatible, but this requires open communication and flexibility (versus strict rules).	...to ensure a common language for communication so that true dialogue can occur. As someone with some involvement in both sectors, I have seen situations in which both 'sides' are essentially in agreement, but not necessarily realizing it.
<i>Understanding Intent</i> (18 statements)	...to come to a common understanding of what 'food safety' and 'food security' mean.	...to understand the intents of food safety regulations and safe food handling practices, so that the principles can be applied to food security initiatives; and such initiatives can be achieved.
<i>Educating</i> (11 statements)	...by providing more reader-friendly information on regulatory environments, especially meat processing. Creating easy-to-understand messaging around the differences between provincially and federally inspected abattoirs is key to food procurement decision making.	...by holding public information sessions to inform on the value of food security initiatives, the need for food safety to be in place, and what constitutes food safety.
<i>Understanding Risk and Regulation</i> (9 statements)	...for food security professionals to understand the inherent food safety risks in some foods (e.g., raw sprouts, raw milk, dried and/or fermented meats, home canned) and that food regulations are intended to protect broader public health not limit individual choice.	...to develop awareness of potential bylaws, policies, legislation, bills, and international trade agreements which affect producers and processors — e.g., liability insurance for community gardens, irradiation of produce before selling, or genetically engineered foods.
<i>Enhancing Partnerships</i> (7 statements)	...to form a collaborative group that has authority between food security activists, agriculture sector and health sector that can move this forward rather than the current ad hoc community/regional voluntary groups.	...to increase opportunities to work together on food policy council and food system initiatives occurring at the municipal level.
<i>Recognizing Scale</i> (6 statements)	...to look together at the various scales of food production and distribution and consider their impact on both safety and security. In particular to consider what would be appropriate regulations for non-industrial food production/processing.	...to sort out issues of locality and size to come to mutual understanding that small, local food producers have fundamentally different food safety needs than big industrial food producers.

indicate that those working in community food security perceive a lack of understanding among those working in food safety about what it means to be food secure in a rural or remote setting. We surmise there may be unique challenges in applying the same safety standard across a vast geographical area with different climate zones and population densities. Additionally, to reduce tension between the groups, participants suggest it is important that intentions of food safety regulations in promoting safe food handling are understood and applied across community food security initiatives. Understanding the intention of each sector in relation to health protection and promotion could help to ease tensions.

The *Educating* cluster stresses the need to educate the public for a balanced understanding of what constitutes safe and secure food. Participants wanted others to recognize there is no food situation totally without risk. According to some, community food security is about having enough food, local is not necessarily safer than imported, and canned or frozen are acceptable alternatives to fresh. Participants felt education is also needed on different perspectives about what is considered acceptable food and on the meaning of community food security. This cluster, more than others, reflects the divide in the two cultures; some statements were clearly focused on the need to educate for safety, while others clearly showed a preference toward education around community food security.

Understanding Risk and Regulation emphasizes the protection of public health (broadly conceived) and the role of government. Tensions are evident between the groups involving individual choice and protection of the public, a classic public-health tension (Gostin, 2007). A concern was expressed that food safety will trump right-to-eat issues. The problem, it seems, is how to ensure an efficient, economically sound, and safe food system across multiple contexts. Participants suggest removing the word “regulation” from the discussion, referencing the word’s negative connotations, while still appreciating the need for broader health protection. This group of statements suggests a better understanding by the general public of the benefits and limitations of broad-based regulations intended

for health protection as a way to ease tensions.

Enhancing Partnerships suggests the need to work collectively to develop policy, programs, and guidelines that apply to food activities, and to create working models that illustrate common goals and objectives. Participants referred to a collaborative group, such as a provincial-level food policy council consisting of people from agriculture, health, and grassroots community food security activism can help to identify needs and reduce tensions. We feel it is important to have integrated, multidisciplinary working teams developing policies, recommendations and strategies for the food system.

The final cluster, *Recognizing Scale*, is the farthest to the left on the map (Figure 1) and well separated from the other clusters, suggesting these statements were rarely, if ever, combined with other statements in the set, thus representing a unique and distinct cluster of strategies. The primary concern reflected in this cluster’s statements is that the same regulations are applied to both large and small producers and processors. Participants suggested creating appropriate and separate regulations for non-industrial food production and to sort out issues of locality and size.

Discussion

Concept mapping offers a unique means to involve a cross-section of interested individuals in a participatory mixed-methods project focusing on a specific question of concern. In the course of this study, concept mapping provided a platform for two diverse groups, those working in food safety and those working in community food security, to share ideas on ways to ease tensions between them. According to the participants, ways to maximize understanding and collaboration between people working in food safety and community food security fall into three broad areas we discuss below: relationships (consisting of the “communicating” and “enhancing partnerships” clusters), education (the “understanding intent,” “educating,” and “understanding risk and regulations” clusters) and context (“recognizing scale” cluster).

Relationships

Participants identified a need for a formal process

for working together to develop policy, programs, and guidelines, such as a collaborative group. The collaborative group needs to have authority balanced between the food security activism sector, agriculture sector, and health sector rather than ad hoc community or regional voluntary groups. Where possible, at the municipal level environmental health officers should have a role on food policy councils along with community nutritionists and community food security activists. This may be more challenging for smaller communities, but food policy councils provide an excellent forum for developing relationships and a venue for a whole food-systems approach to policy. The relationships need to be encouraged in a systematic way locally, regionally, and provincially. This requires health authorities, as employers, to dedicate time to building relationship between these groups. It is as important to develop and maintain good working relationships across professions as it is to foster collaboration between professionals and the community clients they work with on a regular basis. The cross-professional relationships will enhance work done with the community.

The call for intersectoral coordination and collaboration is a key health promotion strategy, as reflected both in public health policy document such as the World Health Organization's Alma Ata Declaration (WHO, 1978) and the Ottawa Charter (International Conference on Health Promotion, 1986). This requires a deliberate strategy with a focus on action. Intersectoral coordination and collaboration are important aspects of a healthy food system, especially given the broad spectrum of individuals who are engaged in food safety and community food security activities. The call by participants in this study for increased communication and enhanced partnership clearly indicates the need for improved intersectoral collaboration.

Research evidence for successful intersectoral collaboration in creating positive alliances is sparse (Dowling, Powell, & Glendenning, 2004; Green & Kreuter, 2005; Lawn, Rohde, Rifkin, Were, Paul, & Chopra, 2008). Stern (1990) wrote about the tensions and contradictions in developing alliances stemming from the "Achieving Health for All" framework (Epp, 1986). These included

competition for resources, competition for leadership between professionals, and mistrust by community groups of professional associations and bureaucrats. Stern (1990) advises leaders of alliances to be aware of the need to develop professional credibility toward a common goal, which requires time. Additionally, she encourages debate about each leader's intended outcomes, noting the need for a combination of skills including political, analytical, mediator, facilitator, and communicator. Other challenges include cultural differences, risk orientations, and decision-making styles (Alexander, Christianson, Hearld, Hurley, & Scanlon, 2010). It can take considerable time and effort to develop trust and respect within a group, and there needs to be full awareness of the challenges that creating an alliance can present.

Forming a new coalition, setting the direction, and specifying goals can be a long and difficult process involving values clarification (Hawe & Stickney, 1997). There is also a tendency for the health sector to assume others will follow their lead (Hawe & Stickney, 1997). This can result in increased tension between community food security activists and regulatory authorities because the health sector partner is not meeting others' expectations for collaboration.

Education

A focus on education surfaced through the clusters of "understanding intent," "educating," and "understanding risk and regulations." Community food security participants identified a general lack of understanding by the food safety sector of how community food security needs are different for those living in urban versus rural settings in terms of access, and a lack of food safety policy tailored for rural settings. Physical and social environments affect food access. In rural areas, there is less access, in both a physical and economic sense, to the mainstream food system that supplies urban areas (Smith & Morton, 2009). Rural low-income households have more frequent nonmarket food exchanges than urban low-income households, and small-scale food production is the most economical way to provide healthy food in rural environments (Morton, Bitto, Oakland, & Sand, 2008). Under-

standing community food security needs in different settings is important for a comprehensive approach to the food system.

Similarly, there is a lack of understanding by those working in community food security about what it takes to create and maintain a safe food system. Food safety guidelines are intended to prevent and reduce incidents of foodborne illness. More than knowing how to apply rules or guidelines, understanding what it takes to create and support a safe food supply is key. The regulatory environment is challenging to the average person. Demystifying regulations is one way to bridge the gap between those who enforce regulations and those who work in the environments being regulated. Using plain language in food safety regulations may be one way to demystify the process. Some researchers (Mackey & Metz, 2009; Mills et al., 2004) have addressed the idea of food product labels being easy to read regarding safety, nutrition, and allergens, but there is no evidence that food safety regulations, such as what might be in a public health act, are being put into plain language. Participants suggested more work to clarify regulatory documents to improve communication between regulators and lay people. While it is not the role of regulating bodies to explain regulations in plain language, perhaps there is a need for a new role of “translator” in the regulatory arena, either through formal government channels or nongovernmental organizations.

The final element of the education area is the role of public health in protecting the public from disease as well as protecting the right to food and preserving the opportunity for individual choice. Some participants perceive a conflict between food safety regulations that limit access to certain kinds of food considered risky, and the right to eat what one chooses. This conflict may exist because some people value a precautionary principle approach and focus on the safety aspect of food, while others perceive the risk of foodborne illness as minimal and perceive the restraints on food access resulting from safety regulations as impeding the health and well-being of individuals and communities. These are complicated and value-laden issues requiring relationship building, trust, and respect in order to reach a balance.

Context

The final cluster is “recognizing scale.” This cluster is most important to those working in community food security and least important to those working in food safety. We consider it “context” because in the current system, the same regulations apply regardless of context; the same regulations apply to large-scale food production as to small-scale food production, despite differing levels of risk associated with each. This one-size-fits-all regulatory approach designed for large-scale production makes it difficult for small-scale producers to comply with standards. Seed (2011) refers to the issue of scale, in terms of regulation standardization, as a subject of power. According to Dahlberg (2001), standardization allows for a structurally simple, and therefore more easily dominated, society. The tension here is clear; one group (food safety) strives for simplicity in a centralized system that thrives on power, while the other (community food security) is seeking flexibility in a diffused power setting, which adds a level of complexity beyond the capacity of the current system. Changes in food safety system capacity would be needed to support the smaller-scale context rather than imposing blanket regulations that are applied for the sake of simplicity.

Recommendations

There is a growing interest in community food security, yet increased tensions are a real possibility unless we acknowledge the problem and take action to work better together. We have identified four areas of focus for easing tensions.

First, there is a need to form a collaborative group at a high regulatory level that shares authority among the community food security activist sector, agriculture sector, and health sector. This level of collaboration could work on a broad scope of food-related activities and mitigate problems in early stages. Similarly, where possible, food policy councils at the municipal level should include a food safety specialist along with community nutritionists and community food security activists.

Second, relationships need to be encouraged in a systematic way locally, regionally, and provincially, and this requires dedicated time to be allocated by the health authority. Building relationships

takes time, and this activity needs to be recognized as a valuable part of work.

Third, reader-friendly information is needed on regulatory environments in order to facilitate food procurement decision-making and understanding by small-scale processors. More plain language documents or web-based information can help to demystify the regulation process. Finally, there is a need to increase food safety system capacity to allow for flexibility in regulations to match the context of the small food producer. A one-size-fits-all approach may be efficient, but it lacks effectiveness. Allowing for flexibility or context-specific regulations will require more time for food safety inspectors. Further research exploring these priorities is necessary to determine their value and success.

There are no easy or quick means to ease tensions between those working in food safety and community food security, but we have numerous practical and positive ideas to work better together. On a positive note, there was no mention by participants of distrust between the individuals, and there is a general recognition of the value of both food safety and food security for a healthy food system. Building better relationships and improving education are achievable goals. Dealing with context and resolving issues of power require further investigation. While it is challenging, considering all these aspects may result in positive long-term outcomes.

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Labor in the food system: A view from INFAS

Joanna Friesner,* INFAS National Network Coordinator, with contributions from the INFAS co-creators of the Statement on Equity in the Food System (see list below)



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The Inter-institutional Network for Food, Agriculture and Sustainability (INFAS or “the Network”), initiated informally in 2008 and formalized in 2011, encompasses a broad group of practitioners, primarily in academic institutions, who work individually on a diverse range of topics in agricultural and food system sustainability. INFAS grew from a shared vision to expose the challenges facing the transformation of agriculture and our global food system, including the sometimes competing interests of labor, producers, and consumers in the food system. From the start, the Network was envisioned to include activists in collaboration with academics in order to broadly improve the economic, environmental, and social sustainability of the food system by spanning disciplinary and institutional boundaries, convening diverse stakeholders, and linking knowledge with action. We envision an environmentally sustainable and socially just U.S. food system. This requires that race, class, and gender no longer determine health

outcomes, social status, or economic opportunity, and that healthy, restored agroecosystems and fisheries are achievable.

The topic of “Labor in the Food System from Farm to Table” aligns with the Network’s mission and values, and thus we are honored to support this special issue of the *Journal of Agriculture, Food Systems, and Community Development* (JAFSCD). Food system workers make up a large part of the U.S. workforce, yet often face a multitude of barriers and injustices, including low wages, unreliable and unsafe working conditions, and poor benefits and legal protections. Patricia Allen, an INFAS participant, has contributed the issue overview editorial that reflects on labor in the food system, weaving in the key themes of the individual journal contributors. We applaud all the contributors whose work is included in this issue and who strive to illuminate the specific and interconnected challenges facing labor in the food system.

INFAS has reexamined the core focus for our collective action, especially given the barriers inherent to a dispersed volunteer network whose members are deeply engaged in a broad spectrum of sustainability, agriculture, and food system

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challenges. We have concluded that we must focus on historical and institutional barriers that constrain food system sustainability. We realize that the challenge, and the opportunity, presented to a network such as ours is finding ways to collaborate on a wicked and thorny issue that will require all of us to move together toward change. INFAS was created to pursue issues that span boundaries in discourse and practice and can not be solved by any one person. In short, social justice and racial equity in the food system have emerged as key issues that bring us together.

As a Network, we:

- *See* that food and agriculture are part of a diverse set of interconnected systems. We recognize the value of systemic analysis in identifying the impacts of policies and practices; how components of the food system function; and gaps in our understanding. We recognize that the food system affects and is affected by almost every other sphere of human activity and well-being. Therefore, we value transdisciplinary and interdisciplinary approaches to solving problems, in addition to contributions that are made within single disciplines.
- *Recognize* that the global food system is profoundly inequitable with respect to gender, class, and race. In the U.S., racial inequity is expressed by the legacies of slavery, racism, and theft of resources from indigenous peoples, all of which continue to prevent equal opportunity for many individuals and groups. Inequity is also expressed structurally in the leadership, infrastructure, and decision-making mechanisms of our food system, which continues to favor the subset of the population that has held power in the U.S. from its founding as a country (usually white, male, and from a background of relative affluence).
- *Value* the cultural diversity of the U.S. food system embodied in the many foodways and cultural practices of all our peoples. We understand that food production and food consumption have spiritual, cultural, and

social significance that goes far beyond food's nutritional and economic value.

- *Recognize* multiple converging trends in U.S. food systems that lead us away from sustainability, resilience, and social equity and instead toward irreversible thresholds which could drastically transform our world. We know that we live in a time of increasing uncertainty that demands new coping mechanisms. Global environmental change (e.g., climate change, nutrient-cycle disruption, loss of biodiversity, and ocean acidification) constitutes a cluster of potentially severe thresholds to which food systems contribute. Strikingly, the loss of human diversity, as indigenous peoples and their languages continue to be decimated, also is irreversible.
- *See* that public policies and practices sometimes push food system actors away from sustainability, resilience, and social equity. We understand that these policies and practices have global impacts, affecting the food system choices of people across the world as well as within our own borders, and leading to limits on opportunities for all, especially women, poor people, and people of color. We know that policies and practices can be changed with sufficient motivation, knowledge, and mobilization of political power.
- *Seek* to meet our responsibilities as food citizens from our positions within, or working with, institutions of higher education. We understand that the goal of sustainability is a call to action that requires much more of us than what is found in our formal job descriptions, and we come together to learn and to act in more effective ways to promote racial equity, economic equity, and environmental restoration and health.

Several INFAS participants[†] developed the *INFAS Statement on Equity in the Food System* to underpin our Network's mission, guide our collective action, and explain our values:

1. INFAS is a network of educators and researchers who are dedicated to all aspects of food system sustainability and are committed to supporting, learning from, and partnering with activists in our communities. We recognize that our food system is profoundly inequitable, and that institutions of higher education hold power and privilege that can be used for good or harm. Equity in opportunity, food access, and health outcomes are non-negotiable and foundational principles of a sustainable food system, and core values and commitments for us.
2. To help build equity in the food system, we focus on the barrier of structural racism. We recognize multiple forms of oppression, and so we also focus on gender and class oppression and the intersections among race, class, and gender that shape barriers and opportunities to equity.
3. We make a commitment to collaborate with communities of practice. Our research, education, and convening capabilities help us understand, communicate, and find solutions to how food system disparity mirrors systemic inequities. We strive to work with and respect community members as leaders, co-creators of knowledge, co-formulators of questions, and co-facilitators in building solutions as we endeavor to create a more just food system for all people.

This statement is intended to simultaneously acknowledge the multidimensionality of the U.S. food system and reinforce that INFAS values

† The following are INFAS co-creators of the Statement on Equity in the Food System:

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systemic analyses and transdisciplinary, interdisciplinary, and single-discipline approaches to solving problems. Rather than establish an either/or scenario where the Network focuses on the science and practice of environmental *or* economic *or* social sustainability in the food system, INFAS participants commit to work on *all three* pillars of sustainability in order to improve agricultural and food system resilience. We recognize that structural racism and gender and class oppression—and the intersections among these—within the U.S. food system are systemwide impediments to sustainability.

In concert with many other efforts, the Network's collaborative work can help to legitimize a discourse that addresses social justice and the myriad interconnected environmental and economic challenges in the U.S. food system. We believe that many complex and embedded issues have produced the system. These issues may be invisible to many, but must be addressed to effect meaningful change. The discussions that culminated in the development of our vision and equity statement have been difficult but essential to challenging—and ultimately transforming—the current system into one that is sustainable, equitable, and resilient for *all*. We commit to continuing to engage in difficult conversations within our institutions and the Network, and to reaching out to a broad set of stakeholders, both within and beyond academia. Ideally, we want INFAS to be an inclusive group achieving necessary goals for sustainable U.S. food systems that we cannot achieve as individuals. For information on collaborative opportunities, we invite you to visit <http://asi.ucdavis.edu/networks/infas/join-infas>. 

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Pondering farmworker justice: The visible and invisible borders of social change

COMMENTARY ON RACE AND
ETHNICITY IN FOOD SYSTEMS WORK

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Abstract

Farmworkers play an integral part in both industrial and alternative agriculture, and in recent years the alternative agriculture and farmworker justice movements have been collaborating in more fruitful ways. These collaborations are applauded and are definite steps in the right direction; however, unlike many members of the alternate agriculture community, many farmworkers are discriminated against for their race, class, and citizenship status. These realities endure in that 25% to 50% of farmworkers are estimated to be undocumented individuals, new destinations for new farmworkers are often in states with tight immigration policies, and much of our immigration debate is based on a rhetoric of individual choice.

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As these types of partnerships become more common, power relations must be addressed and shifted if we wish to see more equal participation from both parties. This commentary outlines a framework for change at all levels of governance, and specifically expresses five ways in which the alternative agriculture movement can begin to shift power associated with race, class, and citizenship, and therefore create and maintain stronger partnerships with the farmworker community. These shifts will not happen overnight and will only occur if we work collaboratively to insist on a more transparent global capitalist system, advocate for immigration laws that are not based on fear, implement local food programs that include farmworker participation and input, and create new organizational policies that encourage individual voice and agency.

Keywords

immigration, alternative agriculture, farmworker justice, critical agrarian studies, social change

Introduction

Farmworkers play a critical role in harvesting everything from our vegetables and fruits to our Christmas trees. They are not just temporary workers with legal documents, American citizens, or undocumented adults, but also youth who were raised as farmworkers and continue to work in the fields, some of whom are attending American schools and universities in the hope of contributing to the country they call home. These aspirations notwithstanding, these individuals still live and work in dangerous conditions and are often subject to discrimination on the basis of their race, class, and citizenship status. As a general proposition, it is fair to say that they are systematically rendered invisible to the broader society by both industrial and alternative agriculture (Gray, 2013; Holmes, 2013).

These realities are becoming more apparent to me, a white, middle-class locavore, as I begin my dissertation research on questions addressing justice for farmworkers, sustainable agriculture, and political voice and participation. Fortunately, many undocumented farmworkers are already demonstrating phenomenal courage by sharing their stories with the public through movements such as the DREAMers. Food justice and food sovereignty activists and scholars are also addressing these realities and highlighting linkages as well as gaps between the alternative agriculture movement and labor. Moreover, these actions are making headway in policy as the city of Los Angeles now incorporates standards for agricultural labor into its procurement policies. The goal of this brief commentary is to encourage both the alternative agriculture and the farmworker justice movements to deepen collaborations, to continue to investigate power and privilege, and ultimately to work together to imagine and implement collaborations and policies that foster social and ecological sustainability. In order to ensure that these partnerships flourish and to move toward broad-scale social change, differences arising from race, class, and citizenship privileges must not only be understood, but also be broken down at all levels of the collaborative movement.

In this piece, when referring “farmworkers” I am referring to the largely Latino population of

temporary guest workers and undocumented, or unauthorized, farmworkers who are working in the United States without American citizenship. This does not discount the hard work on farms conducted by American citizens of all races nor the racial discrimination experienced by many farmworkers of color, but this particular piece focuses on the aforementioned populations. The statistics vary according to place and can be difficult to acquire, but it can be assumed that anywhere from 25% to 50% of farmworkers are undocumented immigrants (Passel & Cohn, 2009). An earlier National Agricultural Workers Survey conducted by the U.S. Department of Labor found that 75% of farmworkers were born in Mexico (Carroll, Samardick, Bernard, Gabbard, & Hernandez, 2005).

In many states, so-called undocumented individuals cannot obtain a driver’s license, secure health coverage under the Affordable Care Act, or apply for other public services, such as the Supplemental Nutrition Assistance Program (food stamps). Difficult living and working conditions have been exacerbated in Arizona and Alabama in recent years by strict residency laws that limit laborers’ mobility and freedom. In addition to these realities, farmworkers, regardless of status, traditionally make low wages, have higher levels of food insecurity than the general U.S. population, and work regularly in dangerous conditions (Arcury & Marín, 2009; Gray, 2013). Although many workers mobilize against these conditions, their fear of deportation and loss of employment can limit their opportunities for organizing against unfair working conditions (Holmes, 2013).

Social change advocates and scholars strive to use governance processes and develop programs to change power relations between those with privilege and those without and thus increase the participation and encourage the exercise of political agency by the traditionally voiceless. However, because of the challenges that many guest workers and undocumented farmworkers face, it is difficult to create the sorts of shared social change processes that move society toward these goals. Development professionals and scholars argue that in order to shift existing power relations, and thus stimulate change, existing norms and social

structures must be challenged at the level of the individual, the organization, and the state. Moreover, whatever the scale of activity necessary or envisioned, those experiencing injustices in the globalized economic system, such as farmworkers, must be able to point up those wrongs if they are ever to attain real change in their lives. Given the complexity of these necessities, I outline a framework that supports change at all levels of governance. More precisely, in what follows I identify different ways, expressed as five basic propositions, in which the alternative agriculture movement can begin to break down the power imbalances associated with race, class, and citizenship, and thereby create stronger partnerships with the farmworker community.

First, although farmworkers contribute to the economy and live within the borders of the U.S., guest workers and undocumented farmworkers cannot vote to help to determine those who will make the laws that structure their lives. As a consequence, alternative food activists and scholars need to look beyond agricultural policy, as important as that domain is, and press for labor and immigration reform. Advocates must also understand that today's often-dominant neoliberal rhetoric of individual choice and responsibility is largely inapplicable to undocumented farmworkers living in the U.S., who do not possess the rights or standing that rhetoric assumes.

Secondly, like many small farmers in the U.S., farmworkers are also suffering from larger shifts in the international economic system. For example, before passage of the North American Free Trade Agreement (NAFTA), many Mexican farmers supplied corn for consumers in their native country. However, after NAFTA's passage the low cost of subsidized U.S. corn undercut the price competitiveness of Mexican-grown corn. This shift in employment for Mexican farmers influenced the migration of Latinos into the U.S. over the last fifteen to twenty years. Not only has economic hardship led to systemic reasons for increased migration to the U.S. (contradicting the argument that migration is somehow a "choice" of those undertaking it), it also indicates that many Mexican workers living in the U.S. today were at one time farmers in their native land whose properties

became uncompetitive and thus had to look elsewhere for work (Fernández-Kelly & Massey, 2007).

It is therefore important to design advocacy strategies on the basis of an understanding of that shared concern. The costs of increased regulation aimed at ensuring fair labor conditions can create economic hardships for small farmers. However, if advocates can develop more opportunities for farmworkers and small farmers to collaborate and come to understand their shared interests vis-à-vis changing international trade patterns and conditions, they will be able to discern opportunities to challenge the ongoing deregulation of the global corporate food industry. This imperative includes, but is not limited to, paying close attention to international trade agreements, such as the Transnational Pacific Agreement, as the results of treaties can be immense for small farmers and farmworkers alike.

Third, while the majority of farmworkers living in the U.S. still reside in traditional locations, such as California and Texas, the last 20 years have seen dramatic increases in Latino populations in other rural parts of the U.S., particularly the South (Passel & Cohn, 2009). This is due partly to the fact that southern states have historically had lax labor-protection laws, and partially to global shifts that have made the South a particularly attractive place to do business (Ansley & Shefner, 2009). Those working in the alternative agriculture movement must realize that issues of farmworker justice extend well beyond their traditional locations, and as Alabama has illustrated in recent years, that fact may result in significant social tensions. The many white citizens who dominate the alternative agricultural system movement have the power to move freely without fear of racial discrimination or deportation, and they should use that opportunity to advocate for policies at the local level that encourage openness to undocumented individuals in public schools, universities, hospitals, and social service agencies.

Fourth, locavores need to cultivate local food campaigns and projects that demonstrate the possibility of an open, dynamic, globalized understanding of the local. In addition to being laborers, farmworkers are also consumers, and thus can have

valuable impact on a local food project's trajectory through providing input on the kinds of local foods available. In addition, food movement members must work to understand different cultures and their understandings of what constitutes healthy food and incorporate those into their short- and long-term plans for more economically, socially, and ecologically sustainable food systems. Local food consumers and advocates need to be mindful that labor injustices have been documented at all levels of agricultural production, from industrial agriculture to organic and small "local" farms (Gray, 2013; Guthman, 2004). The injustices workers experience are not limited to industrial agriculture alone. This fact makes it imperative that those seeking farmworker justice utilize every effort to change the culture associated with the alternative agriculture movement to heighten awareness of this reality. Scholars and activists recommend talking with small farmers about labor conditions on their farms and launching sustained efforts to seek improved health and safety working conditions on both small and large farms. It is also worth recalling that advocacy by many farmworkers is limited by fear of deportation and by their relative social isolation. Therefore, those seeking more just food systems cannot reasonably expect these individuals to go to food policy council meetings or attend farmers markets regularly. Instead, local food movement members must make efforts to go to where farmworkers live, work, eat, and worship if they wish to help them express a social and political voice (Gray, 2013).

Fifth, to understand farmworker issues those engaged must work closely with members of these groups. In conjunction with creating experiences to understand better the conditions of workers' lives, it is also important that advocates seek to create new spaces in which farmworkers can address injustices and imagine new possibilities with alternative agriculture professionals. Many development scholars advocate for what they call *embodied cognition* (Pettit, 2012), which includes incorporating theater, popular education, community gardens, and other engagement strategies to galvanize increased farmworker participation and voice in decision-making and processes that can affect them.

As the alternative agriculture and farmworker labor movements continue to explore collaboration in the name of social and ecological justice, their members must realize that understanding and changing the power relations that I have here outlined will not happen overnight. It can only occur if those engaged collectively advocate for a more transparent global economic system, for immigration laws that do not discriminate against specific groups on the basis of fear or other irrelevant criteria, for local policies (and citizenries) that are open to new immigrants, and for innovative organizational policies and programs that encourage the expression of individual voice and agency. 

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Paid work, unpaid work, and economic viability in alternative food initiatives: Reflections from three Boston urban agriculture endeavors

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Abstract

This article addresses issues related to paid work, unpaid work, and economic viability in alternative food initiatives (AFIs) by comparing three urban agriculture entities in Boston, Massachusetts, U.S. The discussion is framed in terms of what constitutes alternative economic practices. Three standards of assessment are used in the analysis: First, that of whether the AFIs are able to provide “good jobs” along with “good food”; second, the extent to which the AFIs engage in alternative economic practices by relying on non-exploitative forms of work; and third, the extent to which they foster spaces for enabling progressive social change by engaging in a reflexive local politics oriented toward creating sustainable, democratic, and

equitable community food systems. Preliminary research indicates that the three AFIs surveyed represent a spectrum with respect to their ability to provide “good jobs,” their non-exploitative economic practices, and the extent to which they foster spaces for enabling a reflexive food politics. Given that the economic viability of all three AFIs depends on a significant amount of unpaid work, the discussion concludes by reflecting on the nature and implications of unpaid work by addressing three questions: How is unpaid work understood and fostered by these AFIs; what are the conditions that enable it; and is it indicative of alternative, noncapitalist economic logics and practices?

Keywords

alternative food initiatives, food justice, urban agriculture, labor, unpaid work, economic viability, exploitation, Boston, volunteers

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Introduction

While much has been written about the sustainability of alternative food initiatives (AFIs) with respect to environmental concerns, less attention has been paid to the factors that shape the *economic* sustainability and viability of alternative endeavors, especially with regard to the labor that is performed within them. This paper considers issues related to food work and economic viability by offering an analysis framed in terms of what constitutes alternative economic practices. Three AFIs in Boston are discussed, all of which are engaged in some form of urban agriculture: Higher Ground Farm, a commercial, for-profit enterprise; City Growers, a social enterprise that pursues both economic and social returns; and The Food Project, a nonprofit with a mission of “engaging young people in personal and social change through sustainable agriculture” (TFP, n.d.-a, para. 1). Based upon preliminary research, these three initiatives raise interesting and difficult questions regarding the economic conditions that enable them, especially with regard to the labor performed, since all three rely to some extent on significant amounts of unpaid work as well as other forms of transfer via cash or in-kind gifts. The prevalence of such unpaid or, in some cases, low-paid work raises questions about the economic viability of these initiatives and about whether alternatives such as these are able to provide “good jobs” along with “good food.”¹ This is certainly an issue at play within the conventional food system, where economic logics and practices create conditions that make “bad jobs” prevalent (Food Chain Workers Alliance, 2012; Liu, 2012).

How, then, to make sense of unpaid work in alternative initiatives such as these? Is it indicative of economic exploitation or might it instead be part of what constitutes these initiatives as “alternative”? Might what Sbicca refers to as “non-monetary valuations of work and labor within alternative food models” (2015, p. 676) be an

indication of alternative economic logics that undergird the viability of AFIs? Further, might such alternative economic logics be constituted, in part, by economic practices that embody different metrics or standards with respect to economic viability, sustainability, and success? More specifically, might the presence of significant amounts of unpaid work and other forms of transfer be characteristic of alternative, noncapitalist logics and practices that are non-exploitative and that enable “progressive alternatives”? The answer to these questions depends in part on what is meant by “alternative” with regard to economic practices. However, while activists and practitioners have undertaken myriad initiatives that are cast as alternative to the dominant, “conventional,” “industrial,” “corporate” food system, there is little consensus among food scholars about what constitutes alternative economic practices and logics, much less alternative economic systems or networks (Alkon, 2014; Watts, Ilbery, & Maye, 2005). As Watts et al. note in their literature review of alternative systems of food provision, “the conceptual basis of the ‘alternative’ food economy” is disputed” (2005, p. 22).

When addressing economic issues, some define alternatives by the extent to which they are “outside” the “conventional” or “industrial” food system (Watts et al., 2005), differ from a “corporate” model of food production (Lyson, 2007; Wilson, 2013) or are “oppositional to the industrial agri-food system” (McClintock, 2014, p. 8). Others assess alternatives with regard to whether or not they challenge neoliberal, free-market practices and subjectivities, rather than relying on market-based consumer choice, entrepreneurship, or “self-help” as avenues for social change (Alkon, 2014; Cadieux & Slocum, 2015; McClintock, 2014).

“Alternative” has also been defined in terms of “food justice” and “social justice,” with scholars, activists, and practitioners calling for initiatives that “eliminate disparities and inequities” in the current

¹ What defines a “good job” will be addressed later. “Good food” refers to good quality, nutritious food. However, it is important to note that this relatively straightforward definition or “ordinary ethics of consumption” (Goodman, Maye, & Holloway, 2010, p. 2) does not adequately interrogate the

myriad cultural, ethnic, social class, and ethical dimensions at play in defining what food comes to be regarded as “good.” See Goodman et al. for a discussion of the “inescapably ethical/moral character of *all* food” (2012, p. 2).

food system (Gottlieb & Joshi, 2010, p. ix); and some of this activism and scholarship focuses especially on labor issues. Labor organizers and advocates such as the Coalition of Immokalee Workers, the Restaurant Opportunities Center, and the Food Chain Workers Alliance have brought growing attention to exploitative conditions facing many of those who work in the conventional food system. This activist engagement and “citizen science” has been complemented by academic scholarship that addresses food labor and economic inequality throughout the conventional food system (Alkon & Agyeman, 2011; Barndt, 1999; Gottlieb & Joshi, 2010; Lo, 2014), as well as at particular points along the food chain, such as on farms (Gray, 2014; Guthman, 2004; Holmes, 2013) and in restaurants (Sachs, Allen, Terman, Hayden, & Hatcher, 2014). Guthman’s 2004 study of organic farming in California served as a clarion call to many to address issues related to the exploitation and marginalization of food workers.

Concern for food justice in the conventional food system has also been mirrored by calls to incorporate “social justice” concerns within the alternative food movement (Alkon, 2014; Allen, 2010), and some of this scholarship addresses economic practices. This includes Allen’s consideration of “material equity” and “the distribution of resources” (2010, p. 295), Sbicca’s 2015 comparative case study analysis that looks at “fair food labor,” and Cadieux et al.’s inclusion of “labor” that is not “alienating” and is “fairly compensated, protected, and valued” as one of the “four key points of intervention” for transformative food justice social change (Cadieux & Slocum, 2015, pp. 2, 13–14). Yet, while there has been some reference to the importance of unpaid work in sustaining urban agricultural initiatives (Ballamingie & Walker, 2013; McClintock, 2014; Myers & Sbicca, 2015; Sbicca, 2015), overall relatively little attention has

been given to the significance of unpaid work and other forms of transfer in alternative food initiatives.

This discussion sits at the intersection of these concerns, as it considers what constitutes alternative economic practices with regard to the work performed in alternative food initiatives. In so doing, it focuses on labor practices within particular initiatives or “nodes” (Watts et al., 2005), with “alternative” understood in terms of non-exploitative labor practices. In regard to paid work, two standards of assessment are used when considering the labor practices in these three Boston AFIs. The first is whether the AFI is able to provide good jobs or decent work as well as good food—what Sbicca has called “fair food jobs” (2015)—and, if so, how; what enables this? The second is the extent to which the AFI is engaging in non-exploitative forms of food work. The first standard, that of whether the AFIs are able to provide good jobs, is essentially a question of whether these initiatives are able to pursue a “high road” to capitalism in which business success is predicated in part upon the long-term welfare of the people working in the business (Myers & Sbicca, 2015; Reynolds, 2002). A good job is one that provides at least a living wage,² along with benefits such as paid sick days and paid vacation, a safe work environment, adequate training, and relative job security. In a best-case scenario, it would also provide opportunities for upward mobility or “career pathways” (Liu, 2012, p. 1).³ In a society like the United States, where most people’s ability to live a decent life depends upon having adequately paid work, the ability of any AFI to provide good jobs is very important. However, to the extent that the jobs created are waged work or commodified labor, with people working as employees of a private business owner, good jobs

² In Boston, the living wage is estimated to be US\$13.77/hour (Glasmeier, 2016); this is almost 38 percent higher than the minimum wage of US\$10/hour in Massachusetts and 72 percent higher than the US\$8/hour minimum wage for agricultural workers in Massachusetts.

³ Liu also includes “the opportunity to organize...into a collective bargaining unit without fear of employer retaliation” (2012, p. 2). While very important, this

concern is not much at play in the three AFIs discussed here. Further, as a reviewer noted, in some AFIs a good job may include more than monetary compensation to afford a decent standard of living. For instance, alternative endeavors may provide essential goods or services as a supplement to monetary wage payments, such as free or affordably priced housing, food, firewood, or health insurance.

are not necessarily transformative in terms of creating economic alternatives to capitalism. Creation of decent waged work makes the work less exploitative by limiting the rate of exploitation. However, it does not eliminate labor exploitation itself, if exploitation is understood in Marxian terms of the performance of surplus labor as the basis for realizing a surplus value or profit. It is the second standard of assessment—whether the AFI engages in alternative economic practices by relying on non-exploitative food work—that addresses the extent to which the AFI is engaged in progressive, noncapitalist economic practices.

The discussion that follows also considers a third dimension of alternativeness: whether the initiative fosters progressive social change by creating “inclusive spaces for public participation and for social learning” about food systems (McClintock, 2014, pp. 6–7) that enable what Hassanein (2003) has called “food citizenship” and “food democracy.” In considering this third dimension of alternative practices, the analysis follows Hassanein and Allen’s lead insofar as they characterize the transformative potential of alternative endeavors to be that they open up spaces for “reflection, communication, and experimentation with alternative [more equitable] social structures” (Allen, 2010, p. 305), serving as “social laboratories” that create “spaces of resistance and creativity” (Hassanein, 2003, p. 79), a characterization of alternative practices that is similar to what Gibson-Graham has called a “politics of economic possibility” (2006, p. xix). These concerns dovetail with those who see alternatives at play in “civic agriculture” (DeLind, 2003; Lyson, 2007) and in community networks that engage in a “reflexive local politics” oriented toward creating sustainable, democratic, and equitable community food systems (Dupuis & Goodman, 2005). They also dovetail with a broader field of scholarship and activism interested in fostering “community economies” (Biewener, 2001; Community Economies Collective, 2001; Gibson-Graham, 2006, 2008), a “solidarity economy” (Dacheux & Goujon, 2011; Loh & Shear, 2015), or a “social economy” (Amin, 2009; Biewener, 2006; Connelly, Markey, & Roseland, 2011) that build “interplace solidarity” and progressive, redistributive forms of

“interdependence” (Gibson-Graham, 2006, pp. 622–623).

These three initiatives—Higher Ground Farm, City Growers, and The Food Project—are examined because they all have been characterized as “alternative” within Boston’s activist “good food” community. They all are involved in urban agriculture and, therefore, share some similar challenges and opportunities as a food-system endeavor. They also represent a spectrum with regard to their ability to provide decent work as well as with regard to the extent of their alternative economic practices. While further research is needed to fully explore the alternative economic practices and logics at play in each of these initiatives, several conclusions can be made based on this preliminary research. First, when consideration is given to *economic* practices, some initiatives that have been cast as alternative, such as Higher Ground Farm, are not necessarily able to provide good jobs, nor are they engaging in progressive, alternative economic practices. Second, initiatives that combine a concern with providing good jobs, non-exploitative labor practices, and a reflexive food politics oriented toward building equitable and sustainable community food systems—as in the case of City Growers and The Food Project—provide a better alternative economic model. Finally, since all three AFIs rely on significant amounts of *unpaid* work, it is important to consider what delineates exploitative from non-exploitative forms of unpaid work. The last section of this article therefore reflects on the nature and implications of unpaid work in these three AFIs by addressing three questions: How is unpaid work understood and fostered in the AFIs; what are the conditions that enable it; and is it indicative of alternative, noncapitalist economic logics and practices?

Research Methods

The discussion that follows is based on preliminary research that was carried out between June 2014 and August 2015. The analysis relies primarily on secondary sources, including print and online articles, websites, and printed material for all three AFIs, as well as IRS 990 forms and annual reports for The Food Project. It also incorporates insights from field notes taken after attending five

Massachusetts Food Policy Council meetings, participating in The Food Project's three-day summer institute in August 2015, volunteering at Higher Ground Farm (HGF), speaking with interns at HGF's booth at Boston's 2014 Local Food festival, participating in a Regional Forum held as a part of the process for developing the recent Massachusetts Local Food Action Plan, and participating in two public meetings held as a part of Boston's urban agriculture visioning process. In the circumstances in which I was in direct conversation with individuals, I always disclosed that I am an academic engaged in research related to job quality and economic viability in food-system initiatives. I also asked for permission to write about and publish information gained from such conversations.

Higher Ground Farm: A For-profit Enterprise

I begin with an example of an endeavor that has gotten a lot of positive press within Boston's good food community, but which I find to be problematic with regard to both its economic viability and the extent to which it offers a progressive alternative with respect to economic practices.

Higher Ground Farm (HGF) is Boston's largest commercial urban agricultural enterprise, comprising 14,000 ft² (1,300 m²) of space on the roof of the Boston Design Center (BDC), New England's "preeminent destination for luxury interior furnishings," located in the Seaport District (BDC, n.d., para. 1). Started by Courtney Hennessy and John Stoddard, graduates of the University of Vermont environmental studies program, the farm had its first growing season in 2013. From its inception, Hennessy and Stoddard were motivated to "produce and market the freshest of foods, while simultaneously providing environmental benefits to the community by increasing green, permeable space in the city, and reducing carbon emissions" (Annear, 2012, para. 5). After the third growing season, HGF remains true to its goal of providing healthy, fresh produce to local restaurants and residents, as illustrated by its mission statement: "Our mission is to be a viable green business that will provide fresh, healthy, city-grown produce to residents and local restaurants, while

providing a space that reconnects urban-dwellers with productive green space" (HGF, n.d.).

As a private, for-profit microenterprise, Hennessy and Stoddard's commercial model is based on producing and selling greens, vegetables, and flowers to local restaurants, as well as to the local community through a farm stand in the lobby of the Design Center. Based on Hennessy's restaurant connections built through years of working in farm-to-table restaurants as a server, bartender, bar manager, and general manager, HGF has developed an impressive clientele of high-end restaurants and several grocery stores. "I was in in the restaurant business for eight years," Hennessey [recounted], 'and I've worked for a lot of really big name chefs. We thought that, with the relationships we have, the experience we have, this would be a good business to start. So we just went for it'" (Wakefield, 2014, para. 8). With restaurant deliveries made via bicycles, HGF has positioned itself as being a hyperlocal provider of some of the freshest produce in Boston restaurants. "We harvested and delivered it that morning, it was in the chef's hand by 4 p.m., and my friend is eating it at midnight. It's crazy!" (Landry, 2013, para. 13).

The initial capital investment to install the open-air rooftop farm was financed by a Kickstarter campaign that raised over US\$23,000 (Landry, 2013, para. 9), along with a sold-out benefit concert that raised another US\$10,000 (Holt, 2013, para. 6). However, this initial financing fell short of the US\$300,000 that Hennessy and Stoddard had estimated would be needed to fully develop the entire BDC roof area (Boyer, 2013, para. 2). In the 2015 growing season, HGF continued to farm on just over a quarter of BDC's 55,000 ft² (5,110 m²) roof, using milk crates as soil containers (Field notes). Eventually, Hennessy and Stoddard hope to expand the farm to encompass 40,000 ft² (3,716 m²) of produce planted in soil on the rooftop itself, with another "15,000 ft² (1,394 m²) of harvest stations and support equipment" (Kahn, 2013, para. 3).

For its first three growing seasons, the farm ran purely on volunteer labor. This was not a surprise to either Hennessy or Stoddard since, from the start, they had anticipated a low return, with "their big hope [being] for the business to support

them fully within three to five years” (Landry, 2013, para. 11). In the meantime, both of them are working paid jobs (Hennessy in restaurants and Stoddard as the New England regional project coordinator for the nonprofit organization Health Care Without Harm). Additionally, HGF relies on one to two unpaid interns per growing season and on volunteers, whose help is especially needed on the volunteer days at the beginning and end of each growing season to set up and then disassemble the irrigation and milk crate infrastructure and for the post-harvest clean-up.

HGF is an important pioneering effort to create the first viable commercial roof-top farm in the greater Boston area. It promises to offer significant environmental benefits insofar as it reduces storm water runoff loads, provides energy-saving insulation for the building, adds carbon-breathing plants to the city’s landscape, may contribute to the neighborhood’s “heat island” management, and reduces the energy needed to deliver fresh, nutritious produce to local restaurants. However, it has not been able to provide good jobs in addition to its good food. For its first three growing seasons, its viability has relied upon a significant amount of unpaid work from the two “founding farmers,” unpaid interns, and volunteers. This unpaid work has essentially subsidized the meals produced at high-end restaurants and the produce sold to high-end grocery stores and to the relatively well-heeled people who buy food at the HGF farm stand at the Design Center. Indeed, from an economic perspective the alternative nature of HGF’s economic practices is limited. First, there is the important question concerning the extent to which HGF’s commercial success will continue to depend upon the self-exploitation of the farmer-operators themselves whereby, as Guthman has characterized self-exploitation, the farmers do not earn “revenues equal to the cost of their own labor” (2004, p. 83). This is certainly a concern that confronts many small farming enterprises (Galt, 2013; Hinrichs, 2000; Jarosz, 2007). Secondly, should HGF ever be in a position to employ people for a wage, there is the question of whether it will be able to provide good jobs and, thereby, be an example of high-road capitalism. Given the difficulties of providing decently paid farm jobs in any farming operation,

HGF will likely face considerable challenges achieving this. At best it will become a commercially viable (i.e., profitable) small business, owned and operated by two relatively privileged people (both are college-educated, white, and middle-class), with its alternative character relying on its being small, local, and able to produce some amount of good food in a sustainable and environmentally responsible manner.

City Growers: A Social Enterprise

City Growers (CG) is another commercial, for-profit enterprise, but one that explicitly embraces a double bottom line by pursuing both economic and social returns. Cofounded in 2010 by Glynn Lloyd and Margaret Connors, this social enterprise had its first season of farming in 2012, one year before HGF. Lloyd is a schoolteacher turned entrepreneur. In 1994, he was one of the three founders of City Fresh Foods, a successful community-based catering business that offers “culturally appropriate food” to Latino and African American senior citizens. Over 15 years later, he partnered with Margaret Connors, a former public-school wellness coordinator, to establish City Growers.

CG’s mission is to “transform vacant lots in Boston into intensive urban farms that are economically and environmentally sustainable” (CG, n.d.-a, para. 1). As Lloyd describes it, he “had an epiphany” some years ago; “I was standing in the kitchen at City Fresh and realized that we were buying all this lettuce from California and paying a pretty good dollar for it,” he recalls. “Then I was driving up Harold Street [in Roxbury] and I just noticed vacant lot, vacant lot, vacant lot, vacant lot. I said, ‘We are going to get land and start growing food’” (Harris & Lyon, 2013, para. 1).

CG began farming in 2012 with about half an acre (.2 hectare) of farmable land. By the 2015 growing season, it doubled that number to one acre (.4 ha), spread over four different plots in two of the poorest parts of Boston, Roxbury and Dorchester; neighborhoods that have also experienced the greatest amount of abandonment and neglect. The hope is to establish a “checkerboard” of intensively farmed, quarter-acre (.1 ha), microfarms that are “linked into a single entity (City Growers) with coordinated market operations and pooled

resources” (Harris & Lyon, 2013, para. 13).

As Connors has characterized it, CG’s vision is one of “sustainability,” both environmentally and economically. CG believes that urban farms that are reliant on grants and foundation support are vulnerable, not sustainable. “Building a new food system dependent on grant funding puts that food system at risk, particularly in turbulent economic times and always for those most in need” (Connors, 2012). CG is searching for a

new model...We’re not just growing food in poor neighborhoods....Our intention is to establish a resilient food system as an alternative to our current, broken food system. We are looking to business models based on sales of products and services to survive even in times of economic downturn. (Connors, 2012)

In establishing commercial farms on formerly vacant land in underserved communities, CG has identified three major goals: “1. Creating employment for community members at livable wages, 2. Addressing food security issues by increasing local agricultural production capacity, and 3. Increasing local access to affordable, nutrient-rich foods” (CG, n.d.-a, para. 2).

Similarly to Higher Ground Farm, CG’s commercial strategy rests in part upon advertising its produce as hyperlocal. As its poster proclaims, CG provides produce that is “City Farmed, City Sold.” Like HGF, some of its produce (mostly greens) is marketed to high-end restaurants and grocery stores located in wealthy communities. However, CG has a more diverse clientele than HGF, as it also includes more moderately priced restaurants and grocery stores in moderate-income communities. CG’s clientele also includes social enterprise

caterers such as City Fresh Foods and Haley House Bakery Café, a bakery and catering business in Roxbury that is run by formerly homeless men.

While CG wrestles with determining the best organizational structure and scope for realizing a “new UA [urban agriculture] model,” currently it has a “cooperative model” in which City Growers is the “brand,” operating as a commercial wholesale seller for individual farmer-members. During the 2012 growing season, CG grew on 20,000 ft² (1,858 m²) (about half an acre [.2 ha]) and generated US\$32,600 in sales. For Connors, “that really proved our model” (Harris & Lyon, 2013, para. 6). The company employed one part-time and two full-time growers; it also got assistance from about 100 volunteers (Harris & Lyon, 2013, para. 6). The goal is for one part-time and two full-time farmers to sell at least US\$40,000 on one-half acre (.2 ha), allowing them to earn US\$15,000 to US\$18,000 in a 22 to 25 week growing season (Connors, 2012). As Table 1 shows, with Boston’s living wage estimated to be US\$13.77/hour (Glasmeier, 2016), this would provide income that exceeds the living wage for five to six months a year, assuming a forty-hour work week.

City Growers estimates that at six intensely farmed acres (2.43 ha) it will reach “the breakeven point,” with earnings from three to four acres (1.21 to 1.62 ha) used to cover the shared functions of management, sales, transportation, bookkeeping, and marketing, with earnings from the other two to three acres (.81 to 1.21 ha) providing income for the individual farmers. The longer-term hope is to acquire 10 to 15 acres (4 to 6 ha), which would allow farmers to grow on multiple intensive minifarms, potentially reaching US\$1,000,000 in sales (assuming earnings of US\$4,000 per week per acre) (Rajewski, 2011, para. 27).

Table 1. Estimated Weekly and Hourly Earnings of City Grower Farmers (all values in US\$)

Range of Earnings	Total Revenue	Length of Growing Season	Revenue per Week	Earnings per 40-Hour Work Week	Percentage of US\$13.77/hour Living Wage
Low End	\$15,000	25 weeks	\$600.00	\$15/hour	108.9%
High End	\$18,000	22 weeks	\$818.18	\$20.45/hour	148.5%

Source: Data on total revenue and length of growing season from Connors, 2012.

In addition to selling produce to restaurants and food retailers, CG's economic viability therefore depends on the acquisition of farmable land as well as the labor of people with farming skills. Fortunately, thus far CG has been able gain access to some land at a relatively low cost by leasing a quarter acre (.1 ha) "for next to nothing" from the Sportsmen's Tennis Club in Dorchester (Rajewski, 2011, para. 7) and leasing another two parcels totaling a quarter acre from the city of Boston for US\$100 per year (Hansman, 2014, para. 8).⁴ Yet even given the possibility of acquiring such low-cost city-owned parcels, which effectively entails subsidized access to land (Galt, 2013), CG faces significant upfront capital investments for land remediation and the building of basic infrastructure on each parcel (e.g., water hook-ups, composting, landscaping). While the land has been virtually free, about US\$25,000 has been spent just to prepare the soil for cultivation on each quarter acre (.1 ha) (CLF, 2012, p. 32). CG has sought out myriad sources of funding for these initial capital expenditures, including grants from foundations, government grants, "angel" investors, and a Kickstarter campaign that raised close to US\$30,000 (CG, 2013, para. 1). At the same time, CG has partnered with two nonprofit organizations, the Urban Farming Institute (UFI) and New Entry Sustainable Farming,⁵ to provide farmer training. CG and UFI reach out to residents

living in the communities in which they farm, the three most underserved communities in Boston. CG has also had the help of one to three farm apprentices and approximately 400 volunteers each year (Shemkus, 2014, para. 8).

Thus CG compares favorably with HGF in terms of being able to provide some amount of decent paid work, as neighborhood farmers appear to be able to earn an income that is somewhat higher than Boston's living wage.⁶ This realizes one of CG's three major goals, that of creating employment for community members at livable wages. Yet this work is not full-time, nor does it provide fringe benefits. CG is keenly aware of these limitations and is working assiduously to fashion creative ways to enable CG farmers to earn a decent, stable, year-round income. For instance, two of CG's first farmers, Bobby Walker and Nataka Crayton, are now also working as "farmer trainers" for the Urban Farming Institute during Boston's long nongrowing season.

As a small, for-profit enterprise, CG is also trying to establish an economic model built on economic practices that are more alternative than those of HGF. As noted above, CG functions as a social enterprise, explicitly combining defined social mission goals with the pursuit of commercial viability. This social mission includes training local community residents to be urban farmers, turning abandoned vacant land in underserved

⁴ As a part of former Mayor Menino's Initiative for Food Policy, in 2013 the Boston Redevelopment Authority (BRA) undertook an inventory of city-owned vacant land to determine what might be suitable for agriculture. Boston also rezoned land in December 2013 to allow for commercial urban agriculture throughout the city. Known as Article 89, this was "the most comprehensive piece of legislation of its kind" (Hansman, 2014, para. 6). As a part of the city's multipronged effort to encourage urban farming, the BRA took requests for proposals from potential farmers, leasing parcels for US\$100 each, "with a caveat that the land be specifically used for farming for 50 years" (Hansman, 2014, para. 8). CG was one of the first two organizations to farm on the city-owned land, along with Victory Programs ReVision Urban Farm, which grows produce for homeless women. CG estimates that there may be over 800 acres (324 ha) suitable for urban farming in Boston (CLF, 2012, p. 12).

⁵ The Urban Farming Institute was established as a nonprofit in 2012 "to support the development of urban farming in Boston....Besides serving as an advocate for urban farms in

policy discussions, UFI's principal tasks are to incubate farms and incubate farmers" (Harris & Lyon, 2013, para. 19). Glynn Lloyd of City Growers was active in establishing UFI and serves on the Board. New Entry Sustainable Farming is affiliated with Tufts University. It works "with new farmers to build strong business, expertise in the field, and a resilient food system" (New Entry Sustainable Farming, n.d., para. 1).

⁶ I do not have enough information about HGF's and CG's incomes and expenses to explain fully why CG farmers have been able to earn income while HGF farmers have not. I suspect it has to do with initial capital expenditures needed to start the respective farming endeavors, with HGF's rooftop enterprise requiring a more substantial initial capital investment. It may also be that HGF faces higher operating costs, such as higher expenses for water and compost and for leasing BDC's rooftop. Finally, it may also be that HGF farmers are saving any earnings to fund future development and expansion of the rooftop farm. I hope that future research will answer these questions.

communities into fertile and fruitful agricultural enterprises, and providing fresh, nutrient-rich produce to a range of nonprofits that serve the local community. It is building, thereby, social, financial, and physical assets in the communities in which it farms, communities that are much less well-off than those who frequent HGF's farm stand at the Boston Design Center. Further, CG is structured in a more democratic manner than HGF, as it is currently functioning as a cooperative, with shared decision making regarding resource allocation and use of revenues. It is, thereby, "diversifying forms of [non-exploitative] food labor and work relations" (Sbicca, 2015, p. 676). CG is also developing creative ways of combining nonmarket streams of support to subsidize up-front investments in farmer training by partnering with Tufts University's Sustainable Farmer's Program and the Urban Farming Institute, as well as hoping to have UFI take on the costs of soil remediation, policy research, and community education (Connors, 2012). While CG faces considerable challenges to fully realizing its social and economic vision, it has, thus far, created significant space for envisioning and enacting an urban agriculture model that is "predicated on fair and democratic labor practices" (Sbicca, 2015, p. 685), as well as one that is indicative of a reflexive local politics oriented toward creating a sustainable, democratic, and equitable food system within the communities in which they farm.

The Food Project: A Nonprofit

Founded in 1991, The Food Project (TFP) has been farming for 25 years. It is, therefore, by far the most established of the three initiatives. TFP uses land stewardship and sustainable agriculture as a youth leadership development tool. With four urban growing sites (two in Boston and two in Lynn) and five suburban sites (in Lincoln, Wenham, and Beverly), TFP harvests over 270,000

pounds (122,470 kilograms) of produce annually on its 40 acres (16 ha) of farmland (TFP, 2014, p. 3).

Twenty to 25 percent of TFP's produce is donated to 12 hunger relief organizations. The rest is sold at four farmers markets in low-income neighborhoods in Boston and Lynn and through four community supported agriculture (CSA) programs, including a subsidized CSA.⁷ In 2014, TFP generated US\$412,056 in revenue from the sale of produce (TFP, 2014, p. 11).

Each year, TFP's staff work with some 115 to 120 teenagers and thousands of volunteers. For instance, in 2012, 2,715 farm volunteers contributed 7,670 hours through TFP's volunteer program, *Serve and Grow* (TFP, 2013, p. 5). Teenagers are first employed to work in the "Seed Crew" for six and a half weeks in the summer, receiving a stipend of US\$1,845 (in 2013), which TFP considers equivalent to a pay rate of US\$7.25/hour. Seed Crew teens who are interested in continuing their work with TFP are then able to join the "Dirt Crew," which hires 20 to 30 youth to continue throughout the academic year. In 2013, the Dirt Crew stipend was US\$1,818 (equivalent to US\$8.25/hour). Finally, teens can continue on to a capstone internship-like experience by working in the "Root Crew." In 2013, 25 youth worked as Root Crew members, earning a stipend of US\$2,076 (equivalent to US\$9.25/hour) (TFP, 2013, p. 7; CG, n.d.-b, para. 3).⁸

In addition to learning sustainable agriculture practices, youth are introduced to issues related to local food systems, food justice, and food access. As the Director of Programming and Institutional Learning Cindy Davenport, noted, "We are about much more than inclusion. We educate for systems change, addressing issues of inclusion, diversity, oppression, and anti-oppression" (Field notes, TFP Summer Institute, August 2015). For Dirt Crew members, engagement and activism around

⁷ Beginning in 2008, TFP was the first to offer SNAP benefits (Bounty Bucks) at farmers markets in Massachusetts.

⁸ In 2013, the state minimum wage was US\$8/hour, putting the Seed Crew's stipend at 10 percent less than the minimum wage, the Dirt Crew's at 3 percent more, and the Root Crew's at just over 15 percent more. Given that a number of UA

initiatives incorporate youth employment and training as part of their mission, an area for further research would be that of considering the extent to which TFP provides relatively good jobs for youth, as well as opportunities for training, advancement, and even permanent forms of employment as in the case of Jess Liborio, discussed later.

community food-access issues are furthered during the school year through the design and execution of a long-term, self-directed project that addresses food access issues, such as collaborating with the Boston Public Health Commission to research why corner stores in urban areas rarely stock fresh produce, or teaming up with a local high school to design and build raised-bed gardens. Leadership development is furthered for Root Crew members by having them staff the farmers markets, manage farm share distribution and drop-off points, serve as peer leaders to support the youth in the Seed Crew, and build raised beds for low-income families (Field notes, TFP Summer Institute, August 2015).

One of TFP's considerable achievements is its ability to build bridges and foster relationships among youth across significant racial, ethnic, and class divides as they bring together teens from Boston's urban and suburban areas. TFP is also adept at building bridges with other community groups in Boston's lowest income neighborhoods. In 2010, they partnered with the Dudley Street Neighborhood Initiative⁹ to operate the 10,000 ft² (929 m²) Dudley Greenhouse in Roxbury. Half the greenhouse is designated for enterprise, in which TFP grows produce to sell at a market rate to local restaurants. These beds produce greens in the fall and winter and tomatoes in the spring and early summer. The profits from these sales provide much of the revenue that supports the other half of the greenhouse, called the Community Bay, which serves as a community space. This part of the greenhouse features 27 raised beds in which eight community groups (schools, health centers, and refugee groups) and local gardeners grow produce for themselves and their neighbors. The Dudley Greenhouse serves as a year-round learning center; as Anguelovski (2014) shows, it also serves as a place of refuge for new immigrants and as a

place for community building.

In 2011, TFP expanded upon its community partnerships by initiating the "Dudley Food Planning Process" that involved both DSNI and another local nonprofit, Alternatives for Community and Environment (ACE), well-known for its years of effective organizing around environmental justice issues. By 2014, the Dudley Food Plan was oriented toward creating a "strong, resilient food system that serves the neighborhoods" (TFP, 2014, p. 8). TFP's vision of a community food system is a fairly radical, rights-based perspective that goes beyond "mere... food access":

We believe that every person has a right to real food. This right extends beyond the consumer's purchasing power: every person has the right to access the space, knowledge, and resources for growing the food they eat and to access fresh and nutritious food grown by others. It is only when people engage with each other around multiple aspects of the food system, from seed to plate, that a stronger community food system is built. (TFP, n.d., para. 3)

TFP calls its "holistic approach" to community programs "the Real Food Hub model":

A Real Food Hub is a partnership between The Food Project and local community institutions to support the health of children and families through better access to healthy food: growing it, purchasing it, preparing it, and sharing it with their neighbors. Real Food Hubs link TFP's expertise in sustainable agriculture, youth development, and community food systems with the expertise of our partners in education, family support

(over 30 acres [12 ha]) in the Dudley Triangle area of Roxbury. A community land trust was formed, Dudley Neighbors, Inc., and, since then, the land "has been transformed into 225 new affordable homes, a 10,000 square foot [929 m²] community greenhouse, an urban farm, a playground, gardens, and other amenities of a thriving urban village," including a town common and a charter school (DSNI, n.d.-b, para.3).

⁹ The Dudley Street Neighborhood Initiative was created in the mid-1980s by community organizing and activism to "reclaim a neighborhood that had been ravaged by disinvestment, arson fires and dumping. DSNI's mission is to empower Dudley residents to organize, plan for, create, and control a vibrant, diverse and high quality neighborhood" (DSNI, n.d.-a, para. 1). In 1988, the city of Boston granted DSNI eminent domain over 1,300 parcels of abandoned land

services, community organizing, and community development. Combined, our programs can achieve more than mere food access – they give families the skills, tools, and resources to define healthy food options and practices that build physical, social, and cultural well-being. (TFP, n.d.-b, para. 4)

How does TFP sustain itself economically? Since 2004, TFP revenue has varied between a low of US\$2.75 million in FY2004, to a high of US\$3.65 million in FY2010 (IRS, 2004 to 2013). For FY2014, revenues totaled US\$2.66 million, with US\$412,056 earned from food sales at farmers markets and via CSAs, accounting for only 15.5 percent of total revenue (TFP, 2014, p. 11).¹⁰ As Table 2 shows, in 2014 almost 80 percent of TFP revenues were from donations (five to six percent less than the average over the previous 10 years). The remainder came from investment income (3.3%), programs and training materials (1.3%), and raffles (0.4%).

Of the over US\$2.1 million in donations in the 2014 fiscal year, 68 percent were from “individuals and family foundations,” 17 percent were from private foundations, and nine percent were from corporations (see Table 3). This breakdown among the various donation categories is more or less consistent with TFP’s prior 10 years.

Notably, year after year revenues from food sales do not cover even half the expenses related to food production. In FY2014, for instance, revenues from food sales (US\$412,056) only covered about 43 percent of

Table 2. The Food Project’s Total Revenue (in US\$), FY2014 (July 1, 2013–June 30, 2014)

	Revenue (US\$)	% of Total Revenue
Donations	\$2,118,250	79.5%
Food Sales	\$412,056	15.5%
Investments	\$89,001	3.3%
Programs & Training Materials	\$34,767	1.3%
Raffles	\$10,705	0.4%
Total Revenue	\$2,664,679	100.0%

Source: TFP, 2014, p. 11.

Table 3. The Food Project’s Monetary Donations (in US\$) by Source, FY 2014 (July 1, 2013–June 30, 2014)

	Revenue (US\$)	% of Total Revenue
Individuals & Family Foundations	\$1,440,341	68.0%
Private Foundations	\$360,086	17.0%
Corporations	\$190,634	9.0%
Other Organizations	\$84,726	4.0%
Government Grants	\$42,363	2.0%
Total Monetary Donations	\$2,118,150	100.0%

Source: TFP, 2014, p. 11.

Table 4. The Food Project’s Expenses by Category (in US\$), FY2014 (July 1, 2013–June 30, 2014)

	Revenue (US\$)	% of Total Revenue
Youth Development Programs	\$1,242,541	42.7%
Urban Farming & Community Agriculture	\$544,525	18.7%
Suburban Farming	\$406,087	14.0%
Volunteer & Outreach Programs	\$393,636	13.5%
Food Access	\$322,965	11.1%
Total Expenses	\$2,909,754	100.0%

Source: TFP, 2014, p. 11.

food production expenses. As shown in Table 4, food production activity expenses for “Urban Farming & Community Agriculture” and “Suburban Farming” came to US\$950,612 in

¹⁰ This compares favorably with the prior 10 years, as food sales fluctuated between a low of 9.9% of total revenue in

FY2005 and a high of 16.2% in FY2013 (IRS, 2004 to 2013).

FY2014, about one-third of TFP's overall expenses.

While monetary donations have been crucial for maintaining TFP's economic viability, gifts in kind have also been important. These nonmonetary transfers include land leased at virtually no cost from local towns and The Trustees of Reservations,¹¹ many hours of volunteer labor, and myriad other "services, materials, food, and beverages" from some 45 restaurants, food retailers and caterers, landscape design companies, garden supply stores, and printing companies (TFP, 2013, p. 15).

TFP therefore has been able to successfully combine substantial commercial agricultural activity with mission-driven, nonprofit work. Of the three AFIs surveyed, only TFP has been able to consistently provide decent paid work for its staff. The paid staff includes the executive director and a leadership team of five who oversee 21 full-time staff, two part-time staff, nine seasonal employees, five fellows sponsored by various foundations, and four FoodCorps Service members (TFP, 2013, p. 3). In 2013, the executive director received compensation of US\$118,073, having increased steadily from US\$70,000 in 2004 (IRS, 2004 to 2013). While other compensation data is not publically available, staff that I spoke with at the 2015 Summer Institute indicated that their jobs afforded them a decent standard of living.¹² TFP staff also receive health benefits and paid vacation (beginning with two weeks of paid vacation a year, and rising over time to four weeks). They do not, however, receive contributions to a retirement account. In addition to decent wages and benefits, TFP also cultivates opportunities for upward mobility. There are many examples of employees who, over time, have moved up in the organization, including the

current executive director, James ("J") Harrison, who began in 2005 as the farm manager for one of TFP's North Shore farms. By 2008, he was promoted to be the director of agriculture for the entire organization. He subsequently worked as the regional director in the North Shore until his appointment as acting executive director in October 2014, and then his appointment as executive director in January 2015. Former members of the youth crews have also moved on to become full-time paid members of TFP's adult staff. For instance, Jess Liborio, TFP's Greater Boston Programs & Community Outreach Manager, first worked at TFP in 1995 as a teenager on the Dirt Crew. Ten years later, she returned to work as a farm manager for one of TFP's urban farms in Lynn (Field notes, TFP Summer Institute, August 2015).

TFP's economic practices are noncapitalist, as are the logics and metrics it uses to allocate resources and to assess its success. As such, it is an important example of an AFI that engages in a range of alternative economic practices that enable its viability. It is notable that the decent waged work that TFP provides is not afforded solely by revenues from its farming operations. Year after year, TFP's farming revenues do not even cover the costs of its farming operations. Rather, monetary donations from individuals, businesses, and foundations finance the large majority of TFP expenses. These donations are forthcoming because TFP is a mission-driven organization whose bottom line is not determined by the commercial profitability of its food production operations.¹³ Instead, TFP's economic viability and sustainability rests squarely upon its ongoing ability to convince donors (of both money and time) that

¹¹ As the oldest land trust in the United States, The Trustees of Reservations is a member-supported, nonprofit land conservation and historic preservation organization. It owns over 100 properties in Massachusetts, on 25,000 acres (10,117 ha) of land (The Trustees of Reservations, n.d., para. 2).

¹² As in most nonprofits, TFP salaries are set by the executive director such that, in this regard, TFP is not unusual or "alternative." While the organization reportedly operates on a "consensus model," this is clearly not the case with respect to compensation. Up until about four years ago, the budget was an open document, including information about salaries (Field

notes, TFP Summer Institute, August 2015).

¹³ TFP's youth leadership development mission constrains the efficiency and therefore the returns from its farming operations in several respects. For instance, according to the assistant farmer on TFP's 30-acre (12 ha) Lincoln farm, TFP does not use as much machinery as a conventional farm would because of concerns about operating farm machinery with so many teenagers working in the fields. On its urban farm sites, safety concerns preclude youth from using sharp tools, such as knives, for harvesting produce (Field notes, TFP Summer Institute, August 2015).

it is engaging in practices and achieving outcomes that are worthy of their ongoing support. These include community-building activities that foster thoughtful engagement across significant racial and class differences, especially through youth engagement and leadership development. Community building also occurs via community gardening, community education, and through TFP's work with other social change organizations to envision, plan for, and slowly build equitable, sustainable, and democratic community food systems in the neighborhoods in which TFP works. In so doing, TFP fosters critical consciousness and a reflexive local politics, practicing what Hassanein (2003) has called "food democracy" and "food citizenship."

Paid Work, Unpaid Work, and Alternative Economic Practices

The three AFIs surveyed here represent a spectrum with respect to their ability to provide good jobs along with good food, and with respect to their alternative economic practices and their engagement in a reflexive local politics. TFP sits at one end of the spectrum, providing the best jobs of the three, as well as the most alternative set of economic practices and most extensive engagement with a reflexive politics. CG sits in the middle, and HGF is situated at the other end, unable thus far to provide any paid work at all, much less good jobs, following relatively conventional small business practices, and not actively engaged in a reflexive politics. The difficulties that CG and HGF face in trying to provide living-wage jobs speak to the significant challenges to being commercially viable that any urban agriculture initiative faces. This is perhaps especially true for those endeavors, like CG and HGF, which are in their initial years. Trying to earn a decent living from farming is, we know, "a hard row to hoe." In contrast, one of the reasons that TFP has been successful is that it does not rely on sales of food produce to maintain its economic viability. Instead, it relies on a considerable amount of transfers, including donations in the form of volunteer labor. Indeed, as noted at the outset, unpaid work has been a crucial factor in sustaining all three of the urban agriculture initiatives discussed here.

While agro-food scholars and practitioners

have had some discussion of the pros and cons of AFIs relying more on grant and donor funding than on commercial revenue streams, there has been little intensive study into the prevalence of unpaid labor within AFIs. In what follows, therefore, consideration is given to the nature and implications of the unpaid work that is performed in these AFIs by addressing three questions: How is unpaid work understood and fostered by these three AFIs; what are the conditions that enable it; and is it indicative of alternative, noncapitalist economic logics and practices?

Unpaid food work is not commodified work since it involves labor that is performed without receiving a wage. As such, it is noncapitalist and, therefore, an alternative to capitalist labor relations. Yet, in itself, uncommodified work or unpaid work is not inherently less exploitative or more just than capitalist wage-labor. We need only consider the long histories of slavery, feudalism, and sharecropping to bring this point home. Further, a considerable amount of food production and processing has always depended upon unpaid labor, often performed by women. This is evidenced by the substantial amount of subsistence food production that takes place throughout the world, small family farmers' reliance on the unpaid work of their wives and children (Jarosz, 2007; Ramey, 2014), and all the work that takes place in households to acquire and produce meals. All the unpaid labor that takes place throughout the food system is likely an important factor in explaining why so many of the paid food-system jobs are so poorly paid. It is important, therefore, to consider what might delineate non-exploitative forms of unpaid work from exploitative ones, so that we might understand what conditions would enable unpaid work to be a facet of progressive alternatives.

At least three different discourses or logics are at play with regard to the unpaid work that sustains these three AFIs. First, in the case of Higher Ground Farm, there is a discourse of unpaid work as an investment. The enormous amount of unpaid time that the two founding farmers have spent over the past three growing seasons is cast in terms of the necessary, initial, upfront time that needs to be invested in a fledging initiative that will eventually "pay off," much like the initial money capital

that has been invested to build the farm infrastructure. The hope is that, down the road, this type of unpaid work will no longer be necessary in order for the rooftop farm to be sustainable. This perspective on unpaid work as an upfront investment of “sweat equity” that will eventually pay off in monetary terms appears to be an example of a non-exploitative form of such work, as it is undertaken voluntarily and knowingly by the two founding farmers. However, it is difficult to consider this as an economic practice that is alternative to a capitalist logic or practice. Instead, it appears consistent with a conventional, market-based logic of economic viability, defined in terms of investment and return.

In contrast, the unpaid work of the interns who work at all three AFIs is characterized more in terms of an “apprenticeship,” whereby the intern gives his or her time in exchange for learning a host of farming skills. In this type of unpaid work, there is some sense of a reciprocal relationship of nonmaterial exchange: a moral economy of sorts with transfers of nonmonetary values (Kloppen-berg, Hendrickson, & Stevenson, 1996; Sbicca, 2015). Insofar as this is a voluntary and reciprocal exchange, this form of unpaid work might also be understood as non-exploitative.¹⁴ However, to the extent that the exchange is not equivalent, with the intern giving more than he or she is getting in return, it is exploitative. Without ways of measuring what is exchanged in some form of commensurate units (such as money), it is difficult to ascertain if an exchange of equivalents is taking place.¹⁵ Further, if the intern’s work is producing

goods or services from which the intern supervisor is able to profit, then this too would be an exploitative relationship. While the latter instance is not the case at any of the three AFIs discussed here, this is certainly a possibility in a range of other internship situations on farms, in restaurants, or in small craft-food production.

Finally, unlike interning or apprenticing, a considerable amount of unpaid work is motivated by a myriad of nonmonetary rewards that are not about skill building. For instance, there is the considerable pleasure that some volunteers get from the work itself, the intrinsic rewards of engaging in the actual activity of farming, as well as the rewards of producing something useful, a “use-value.” As one volunteer at TFP expressed, “Volunteering at The Food Project is like meditating, a chance to center myself. Something about it feels right.... This work has a beginning, a middle, and an end. And it’s immeasurably satisfying to see the results of my labor” (Eli Dan, as quoted in TFP, 2014, pp. 6–7). People also often gain considerable pleasure and joy from giving and contributing to initiatives that they value. Indeed, it is very important to acknowledge and recognize the tremendous generosity of many of those who volunteer at AFIs.

Many volunteers are also motivated by the desire to foster relationships and social connections, as well as a desire to participate in and build community. As another Food Project volunteer commented, “Working with The Food Project has brought me into a meaningful community where I feel useful” (Emily Haselt, as quoted in TFP, 2014,

¹⁴ It is important to note the problematic nature of the term “voluntary,” as it implies that the individual has freely chosen to engage in the activity. However, as we know from feminists’ analysis of family relations and historians’ analysis of feudal relations, cultural, social, psychological, and economic conditions are often at play in ways that severely impact, constrain, or compel individuals’ choices and actions. Indeed, one of Marx’s important insights is that in capitalism, a “free worker... must be free in the double sense that as a free individual he can dispose of his labour-power as his own commodity, and that, on the other hand, he has no other commodity for sale, i.e.,... he is free of all the objects needed for the realization of his labour-power” and, therefore, is compelled to sell his ability to work in order to survive (Marx, 1976, pp. 272–273). This element of obligation and

compulsion with regard to volunteers is at play at both TFP, where many who volunteer do so as a part of an employer-sponsored “volunteer day,” and at CG, insofar as TFP Seed Crew youth “volunteer” on CG farms as a part of their TFP stint and, further, some volunteers have been detainees from the Boston city jail who participate in the Suffolk County Sheriff Department’s “Voluntary Work Program” (Connors, 2012).

¹⁵ Neoclassical economists resolve this dilemma by assuming that people are free, rational choice agents and, therefore, any actions in which they engage are voluntary and would only be undertaken if the agent receives as much marginal benefit as he or she provides.

p. 10). In all these situations, this type of unpaid work is indicative of an ethos, politics, and practice that is alternative to for-profit cultures and logics that rely on extrinsic, usually monetized, motivations and reward systems. Further, to the extent that volunteering is motivated by a desire to contribute to endeavors that are seen as “alternative” to the conventional food system, the unpaid work involves a conscious social-change engagement, motivated by a desire to engage in practices that challenge the traditional logics of industrial, market-oriented, capitalist, for-profit businesses. As DeLind (2002) has argued in her discussion of what “civic agriculture” entails, people’s time and work are needed to build “community economies,” communities that are supportive, healthy, equitable, and environmentally responsible. It may well be that many people volunteer for AFIs for just such reasons.

However, we need to consider the extent to which the food movement’s ethics of giving, dedication, commitment, service, and community building might create conditions that enable self-sacrifice and/or self-exploitation, as well as the exploitation of others. This concern was brought to the fore in a conversation with a long-time food-system activist who characterized the expectations of working in the alternative food movement more or less as follows: “First you volunteer to prove your dedication. Then you get a stipend which basically means working for less than minimum wage. Then you might eventually get a low-paid job where you can barely make ends meet.” He, for one, found it no longer feasible to work in AFIs on these terms. He resigned from his AFI job, and looked into other options for personally rewarding work that contributes to progressive food-system social change but is also more economically sustaining.

Of the three AFIs surveyed here, TFP serves as the most positive example with regard to its reliance upon unpaid work and monetary and in-kind donations. For many years, it has been able to realize its three-pronged mission of youth

development, food production and distribution, and community change, while also providing decent paid work for its staff and youth, marshaling the efforts of hundreds of volunteers in a seemingly non-exploitative manner, and garnering monetary donations from individuals and family foundations that fund from one-third to over half of its operations. How generalizable is this model? Clearly, more work needs to be done to think about positive progressive models of organizations that incorporate giving or transfers as a regular form of economic sustenance.¹⁶ Public radio and faith-based communities come to mind, in that in both cases the cultures of giving that they depend on help constitute them as “public” and as “a community,” respectively. In other words, these are communities that are constituted in part through giving. This raises the possibility of creating alternative “public” entities, “public goods,” and “public commons” that differ from governmental or state-owned entities.¹⁷

Yet, even insofar as AFIs are able to sustain themselves through extensive practices of non-exploitative voluntary giving of time and money, we must also think about to what extent such cultures and practices of giving are predicated upon social inequality, with resources redistributed via private transfers from richer (and whiter) households to poorer households, often in communities of color. In other words, AFIs that cultivate giving as a means of sustaining themselves need to avoid charity models of giving and, instead, build supportive communities that recognize social inequities while working to redress them. For TFP, this concern is certainly at play, since many of its monetary donations and much of its volunteer work come from the wealthier communities that surround both Boston and Lynn.

This concern raises yet another important question with regard to AFIs’ reliance upon volunteer labor. What are the circumstances that enable people to engage voluntarily in all of this unpaid food work? Certainly, in many communities, a lot of unpaid food work involves self-provisioning via

¹⁶ See work by the Community Economies Collective and the Community Economies Research Network for some examples of this (<http://www.communityeconomies.org/Home>).

¹⁷ See Loh (2015) for a discussion of how community land trusts are being used to refashion a “commons” in cities such as Boston, Detroit, and Philadelphia.

growing your own, processing your own, and cooking your own food. In Boston, however, growing your own food is not very significant, with processing and preparing your own food more significant (since 63 percent of food expenditures are for food consumption in the home, more than the national average of 59 percent) (Bureau of Labor Statistics, 2015). Yet, in the case of the AFIs under consideration here, the unpaid food work that takes place is not for self-provisioning. Instead, it is undertaken for the myriad reasons outlined above: as an investment that will hopefully pay off in the future, as a skill-building apprenticeship, or as a contribution of time that provides multiple intrinsic benefits, both individual and social. And yet, since the work of producing food is both physically demanding and fairly time-intensive (which is why most people with living wage jobs increasingly pay others to do it), we must ask, who has the time to garden or to volunteer in urban agriculture initiatives? Who is able to work as an intern at HGF, CG, or TFP for free or for a relatively small stipend? It may be that many low-income people are so resource-strapped that it is often a struggle for them to offer significant amounts of time or money as volunteers or donors in AFIs. How, then, to build community economies where the transfers and giving that occur are on the basis of equitable reciprocity? How is it possible to afford more people the support they need to allow them to take the time to volunteer or to have the resources to make monetary donations to the community food system initiatives they support?

To the extent that alternative food initiatives depend upon volunteer time and unpaid work, these are crucial questions. Yet, they raise significant challenges for small, individual AFIs to address on their own, since enabling such support entails countervailing ever-widening economic inequalities in the U.S. As others have noted (Myers & Sbicca, 2015; Sbicca, 2015), while individual AFIs may be able to engage in and foster progressive alternative economic practices within their own enterprises and with those entities with whom they partner, to enable broader equitable economic practices within the communities in which AFIs work, AFIs need to engage in more extensive coordination and collaboration across

AFIs, with the larger “good food movement,” and with other progressive social movements to support effective municipal, state, and nationwide policies that promote economic equality. 

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The role of food workers in food safety: A policy analysis of the U.S. 2011 Food Safety Modernization Act

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Abstract

Foodborne disease is a significant problem in the United States and around the world. Though research identifies diverse factors associated with foodborne outbreaks, one of the most common is poor worker health and improper hygiene practice.

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Research on social determinants of health indicates that living and working conditions play a role in shaping these risks. To start addressing these issues, we must first understand how we currently account for the role of workers in food safety. This qualitative study describes the role of workers in the Food and Drug Administration's (FDA) proposed regulations to implement the 2011 Food Safety Modernization Act, an unprecedented federal action to improve food safety. The analysis is guided by fundamental causes of disease theory, which provides a useful framework for exploring regulations within the context of the socio-structural factors that impact health and hygiene behavior. Findings reveal that proposed regulations primarily treat contamination by workers as an individual-level problem, including the result of workers' lack of food safety knowledge and need for education and training. With few exceptions, broader social and structural factors shaping workers' health and hygiene are overlooked. Study results may begin to change the food safety conversation by connecting the impact of macrosocial inequality on food workers to food safety and public health.

Keywords

food policy, food safety, food workers, qualitative methods, fundamental causes of disease

Introduction

Foodborne disease represents a significant public health problem worldwide. Over the last 15 years, progress in addressing the problem in the United States has been stagnant (Centers for Disease Control and Prevention [CDC], n.d.-a). Though there are many sources of foodborne outbreaks, food workers across food work settings have been identified for decades as one of the most common (Greig, Todd, Bartleson, & Michaels, 2007). According to the food safety literature, workers have been found to contaminate food through poor health and improper hygiene practices, including working while ill (Carpenter et al., 2013; CDC, n.d.-b; Clayton, Griffith, Price, & Peters, 2002; U.S. Food and Drug Administration, Retail Food Program Steering Committee, 2000). Understanding and managing these worker-related hazards therefore is connected inherently to ensuring the safety of the food supply.

This study's objective is to identify accounts of the role of food workers in the U.S. FDA's proposed regulations to ensure safe food, and to consider relevant regulatory text in relation to theory and literature-based insights regarding social and structural influences on worker health and hygiene behaviors. This research adds to the literature by outlining current policy-based assumptions about sources of worker-related food contamination and the interventions that are sufficient to address the problem, both in the U.S. and globally. It also contributes a structural approach to understanding health and behavior, which broadens the range of factors identified as relevant for preventing worker-related foodborne disease. The results may inform future food safety regulations and interventions that better account for and support food workers in the goal of a prevention-based food safety system and a safer global food supply.

A Profile of U.S. Food Workers and Working Conditions

Approximately one-sixth of the U.S. workforce (20 million people) works in five key sectors of the

food system: food production, processing, distribution, retail, and service (Food Chain Workers Alliance, 2012). Within these sectors, food service (where workers conduct food preparation, storage, and service in a variety of settings) represents over half of food workers. The average food worker is a non-Hispanic white, U.S.-born person whose primary language is English and who holds no more formal qualifications than a high school degree (Food Chain Workers Alliance, 2012). Approximately half of food workers are female and two-thirds are 44 years old or younger. While most workers have lived in the U.S. for their entire lives, nearly one-quarter were born elsewhere (Ruggles, Alexander, Genadek, Goeken, Schroeder, & Sobek, 2010). Most food jobs do not require formal training or credentials, and the food system provides opportunities to many undocumented workers who are likely underestimated in government labor data.

Worldwide, fresh produce has been increasingly linked to foodborne outbreaks, including from contamination during production (Lynch, Tauxe, & Hedberg, 2009). In the United States, the production (or agricultural) sector employs approximately 3 million workers (the second largest sector, after service) who are identified as agricultural or farmworkers and who plant, manage, and pick raw foods, as well as raise livestock and farm fish. In addition to the challenges of poor wages and working conditions, agricultural jobs are some of the most hazardous in the nation. Farmworkers face regular risk of heat exhaustion and stroke, and compared to the general public they suffer higher rates of toxic chemical injury and pesticide exposure (Carroll, Samardick, Bernard, Gabbard, & Hernandez, 2005; U.S. Department of Agriculture [USDA], Economic Research Service, 2008). The injury rate for agricultural work is 40% higher than the injury rate for all workers in general (Occupational Safety and Health Administration, n.d.). Additional health risks stem from living conditions; many farmworkers live in employer-provided housing, which has been found to be low quality, with crowding and poor sanitation (Quandt et al., 2013; USDA Economic Research Service, 2008). The risks faced by agricultural workers also include sexual harassment, given that reports from female farmworkers suggest they experience higher

rates of sexual harassment than women in the general workforce (Southern Poverty Law Center, 2010; Waugh, 2010). Compounding these challenges, farmworkers are exempt from many basic federal labor protections, such as overtime pay requirements and protection for unionizing and collective bargaining (Farmworker Justice & Oxfam America, 2010; U.S. Department of Labor, n.d.-a, 2009).

Although some food sector jobs provide a livable wage and opportunities for upward mobility, the majority offer low wages with little access to benefits, and few opportunities for advancement and training (Food Chain Workers Alliance, 2012; Lo & Jacobsen, 2011). In one survey of workers across the food chain, 79% reported a lack of paid sick days, 83% reported a lack of employer health insurance, and 86% reported earning low or poverty wages (Food Chain Workers Alliance, 2012). Many food workers also find that inconsistent provision of wages and work hours challenges their ability to plan and achieve economic stability. For approximately 40% of food workers, making ends meet requires working for two or more employers for 40 hours a week and with little access to breaks (Food Chain Workers Alliance, 2012; Oxfam America, 2013).

Across the food system, workers indicate that reporting illness or injury can lead to negative consequences, including employer threats, wage and shift loss, and even termination (Food Chain Workers Alliance, 2012). Food workers also face barriers to accessing health services, including from a lack of health care providers in rural settings and from policy exemptions, such as partial or full exclusion of farmworkers from workers' compensation benefits in the majority of U.S. states (Holmes, 2013; Sakala, 1987; Villarejo, 2003). In addition to these factors, the majority of food workers also hold front-line positions, or jobs characterized by long hours of repetitive tasks, little decision-making, and lack of power in the workplace. Workers indicate that these conditions lead to prolonged experiences of illness, an inability to perform tasks adequately and safely, and a reliance on the emergency room for primary care (Food Chain Workers Alliance, 2012).

Fundamental Causes of Disease Theory, Food Workers, and Foodborne Disease

Fundamental causes of disease theory identifies an important role for inequalities in macrosocial variables like income, environmental exposures, education, and housing, among others, in shaping health and its distribution in a population (Galtung, 1969; Goldberg, 2012; Link & Phelan, 1995). According to this theory, the social and economic reality of many U.S. food workers limits their access to key resources (e.g., prestige, money, knowledge, power, and beneficial social connections) that are critical to health protection. As a result, many food workers face increased vulnerability to disease and injury, which also makes them a risk to the U.S. food supply (Link & Phelan, 1995; Phelan, Link, & Tehranifar, 2010).

The negative health effects of work have been recognized for centuries (Braveman, Egerter, & Williams, 2011). Much less common, however, is research that describes how social and structural factors, like poor working conditions for food workers, affect health in a way that directly relates to food safety, such as studies on presenteeism (i.e., working while ill) (Johns, 2010). Research on presenteeism finds that working while sick is related to personal and work factors, including employee status in the work hierarchy and work policies such as pay, paid sick days, attendance control, downsizing, and permanency of employment (Johns, 2010, 2011). In a study on presenteeism among workers in a variety of work settings, Johns (2011) found that employees who perceived themselves as replaceable, held temporary status, and lacked a sense of job security were more likely to work when ill. The author suggests that these findings may reflect low-status workers who lack sufficient social standing to take time from work (Johns, 2011).

A few studies have begun to explore these issues in the food industry, including among food service and production workers. Study findings suggest a role for issues related to living and working conditions in shaping workers' health and hygiene behaviors, including restaurant workers' presenteeism due to concerns about short-staffing, lack of pay, and fear of job or shift loss, and farmworkers' high rates of communicable diseases

related to low socioeconomic status, poor access to health care, and a lack of clean bathrooms (Carpenter et al., 2013; Clayton, Clegg Smith, Neff, Pollack, & Ensminger, 2015; Holmes, 2013; Mobed, Gold, & Schenker, 1992; Sakala, 1987). While it may be beneficial to provide training in safe food handling to food workers, fundamental causes likely underlie many hazards related to workers as a source of food contamination, playing a significant role in food safety and warranting much more attention in the food safety policy and research arenas.

Modernizing U.S. Food Safety Systems

In 2011, the U.S. Congress passed the Food Safety Modernization Act (FSMA), representing the largest overhaul of federal food safety laws in over 70 years. The law aims to transition an outdated and reactive food safety system into one that prevents foodborne disease in the first place (U.S. FDA, 2011). The FSMA also applies to both domestic and imported foods, which means that its accompanying regulations will affect food safety in the U.S. as well as globally. The FSMA directs the FDA to create regulations that implement the law. These regulations indicate how this federal agency currently envisions food safety and the role of food workers in this process.

Methods

Documents

In accordance with federal rulemaking, a key process by which the federal government implements policy, Congress has directed the FDA to develop rules that administer the FSMA (Carey, 2013). At the time of writing, the FDA has published proposed rules, also known as proposed regulations, to fulfill this responsibility and to create the central framework for a new food safety system in the U.S. (U.S. FDA, 2013a). Among these documents, the two rules that spell out requirements and standards for food workers were purposively selected for analysis. These proposed rules include (1) Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food (Section 105, FSMA) and (2) Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption (Section 103,

FSMA). The remaining proposed rules focus on issues such as foreign supplier verification, intentional adulteration, and accreditation of third-party auditors and were not considered directly informative to the study aims.

The two selected proposed rules outline (1) the role of food workers within modern, science-, and risk-based preventive controls for human food that is manufactured, processed, packed, or held by a food facility (78 Fed. Reg., 3646) and (2) regulations for personnel qualifications and training, health and hygiene, and sanitary facilities that may ensure safety in the production and harvesting of fresh fruits and vegetables (78 Fed. Reg., 48637) (“Current good manufacturing practice and hazard analysis and risk-based preventive controls for human food,” 2013; “Standards for growing, harvesting, packing, and holding of produce for human consumption,” 2013). Though these requirements apply to workers in production, processing, and distribution sectors, as a part of a food system they affect food workers and food safety broadly.

Content Search Strategy

Proposed rules begin with preambles, which include summaries of the issues and actions being considered, invitations for public comment, and supplementary information, such as the legal authority for the rules, cited data, and compliance dates (Office of the Federal Register, 2011). Following the preamble, rules include regulatory text, or the proposed plans to address problems and meet goals outlined by the law. In this study, regulatory text across the two FDA proposed rules was reviewed for content on the role of workers in food safety and contamination, including text discussing worker health, hygiene, and related behaviors or practices; sanitation behaviors and practices; workers’ social and structural context, such as living and working conditions; and any other text identified as related to study aims. In limited instances, proposed regulations concluded that some current worker requirements were “sufficient to address any [food safety] hazards” (78 Fed. Reg., 2013, p. 3743). These existing regulations were located in the Code of Federal Regulations and included in the analysis (“Current good manufacturing practice in manufacturing,

packing, or holding human food,” 2013). Table 1 outlines text segments identified as meeting study search criteria.

The search criteria and identified text were discussed and agreed upon by three of the study authors, including one with legal training. The lead author also read FDA guidance for industry on subparts of proposed rules to compare FDA thinking with study team interpretation of the proposed regulations.

Coding and Analysis

The selected text was coded and analyzed according to a framework approach. This approach supports policy-relevant qualitative research that begins deductively with pre-set study objectives (Pope, Ziebland, & Mays, 2000). A coding framework was developed with five main coding categories: 1—workers as hazards; 2—living and working conditions as hazards; 3—hazard controls;

4—authority; and 5—regulatory frame. Four of these organizational categories were used to identify and sort data on concepts that were considered objectively clear (1 to 4), including text describing (1) how workers directly contaminate food (e.g., poor health and hygiene); (2) social or structural factors that influence workers as a source of food contamination (e.g., access to key resources, working terms and conditions, work environment, etc.); (3) interventions or requirements to address or reduce workers as a source of food contamination; and (4) the disciplines, institutions, qualifications, people, or positions that are authoritative in defining and implementing food safety. The additional category (5—regulatory frame) was added to capture content on how the FDA uses data, language, and problem definitions to frame food safety in relation to workers, which was considered to require subjective interpretation.

To test the clarity and consistency of category

Table 1. Text in the Proposed Rules that Implement the 2011 Food Safety Modernization Act and Relate to Food Workers

<i>Proposed Rule or Regulation</i>	<i>Part, Subpart</i>	<i>Section or Subsection</i>
Current Good Manufacturing Practice and Hazard Analysis and Risk-Based Preventive Controls for Human Food (78 FR 3646)	Proposed Revisions to Current Good Manufacturing Practice Requirements of Part 110 (Proposed Part 117, Subpart B, p. 3714)	§ 117.10 Personnel § 117.35 Sanitary Operations § 117.37 Sanitary Facilities and Controls
	Proposed New Requirements for Hazard Analysis and Risk-Based Preventive Controls (Proposed Part 117, Subpart C, p. 3730)	§ 117.126 Requirement for a Food Safety Plan § 117.130 Hazard Analysis § 117.135 Preventive Controls for Hazards That Are Reasonably Likely To Occur § 117.155 Requirements Applicable to a Qualified Individual
Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption (78 FR 48637)	Regulatory Approach (IV, p. 3522)	A. Qualitative Assessment of Risk B. Focus on Biological Hazards
	The Proposal (V, p. 3534)	C. Standards Directed to Personnel Qualifications and Training D. Standards Directed to Health and Hygiene L. Standards Directed to Equipment, Tools, Buildings, and Sanitation
Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food (21 CFR 110)	General Provisions — Personnel (Subpart A, Sec. 110.10)	110.10a Disease Control 110.10b Cleanliness (b1-b8)
	Buildings and Facilities — Sanitary facilities and controls (Subpart B, Sec. 110.37)	110.37a Water supply
		110.37b Plumbing (b1-b5) 110.37c Sewage disposal

Note: The remaining sections that were not included related to plant and grounds, equipment, food recall plans, definitions of a qualified facility, recordkeeping requirements, foreign facilities, and other issues, such as nonworker hazards (e.g., soil amendments, domesticated and wild animals, agricultural water).

definitions, a second coder was trained on a framework that included the four main objective codes (1 to 4) and excluded the subjective code (5). The lead author and the second coder independently and systematically applied these codes to all relevant text using Atlas.ti 7.1.8 qualitative data analysis and research software (Muhr, 2014). For this process, the lead author provided documents that demarcated the beginning and end of all selected sections of regulatory text (see Table 1). This step was seen as necessary as proposed federal regulations often include regulatory and nonregulatory content within a single section of text. Overall, coders had high agreement on codes 1, 2, and 4, but not 3 (hazard controls), which was found to capture the intended text plus additional data related to the omitted code (5—regulatory frame). In discussion with the second coder, it was determined that this additional text was seen as relevant to the study aims, but without an appropriate category for inclusion. After explaining the omission of coding category 5, these discordances were clarified and agreed upon by coders. Throughout data analysis, memos were created to examine patterns within the data and to record emerging interpretations for analysis. The finalized body of coded text was reviewed for themes related to study objectives and fundamental causes theory, and for any concepts that emerged separately from these frameworks. During this process, codes 1 (workers as hazards) and 2 (working and living conditions as hazards) were maintained as separate subcategories, but organized under the broader category of workers as hazards to food safety. The subsequent organization of study results into 4 coding categories reflects this change.

Results

This section outlines the themes identified regarding the roles of food workers in food contamination and in protecting food safety according to the FDA's proposed regulations. Based on study aims, coding categories, and the guiding theoretical framework, these themes are organized into four categories: (1) food workers as hazards to food safety (including through health, hygiene, and living and working conditions); (2) controls for worker hazards; (3) authority to define and implement

worker-related food safety; and (4) the regulatory frame shaping FDA interpretation of food workers in food safety. To further organize results, Table 2 summarizes study findings by coding categories and the reference location within FDA proposed rules.

Food Workers as Hazards to Food Safety

The proposed regulations predominantly discuss workers as a hazard to food at the individual level, or through their health, hygienic practices, and food handling behaviors. To a lesser extent, elements of workers' social status, such as literacy and language, are also considered. Beyond these factors, the proposed regulations mention some elements of working conditions as factors that may influence workers' ability to handle food safely. While these factors are recognized in the food safety literature as related to food contamination, and represent important concerns of effective food safety programs, the omission of consideration of additional complexities related to workers' health and food safety is potentially problematic.

Worker Health, Hygiene, and Behavior

Individual-level hazards described by the FDA's proposed regulations include workers' bodies, clothing, health status, hygiene, hygienic or health behaviors, and certain elements of workers' social status.

Worker bodies, health, and personal effects

At the most basic level, workers are classified as a source of food contamination because of various factors related to their bodies and health. These factors begin at the biological level and include workers as a source of food contamination because "humans (i.e., workers and visitors) are potential carriers of foodborne pathogens," including bacteria, parasites, and viruses (78 Fed. Reg., 2013, p. 3523). The proposed regulations label this route of foodborne pathogen transmission as poor worker health, which is defined as "an illness, open lesion, including boils, sores, or infected wounds, or any other abnormal source of microbial contamination" (78 Fed. Reg., 2013, p. 3802). Lastly, workers' health and bodies are further described as hazards because, in addition to being direct sources of food

Table 2. Results by Coding Category and Proposed Rule Section

<i>Coding Category</i>	<i>Subcategory</i>	<i>Results</i>	<i>Proposed Rule Reference</i>
Food workers as hazards to food safety	Worker health, hygiene, and behavior	Workers' bodies' poor health, personal effects; inadequate hygiene and hygienic practice; social status (low education, literacy levels)	78 Fed. Reg., 2013, p. 3523, pp. 3554–3555, pp. 3558–3559, p. 3802
	Social and structural conditions as hazards to workers	Physical facilities (inadequate toilets and hand-washing stations, improper building and equipment design); inadequate resources (gloves, water, training materials); the nature of agricultural jobs and/or conditions (long hours, large work spaces, outdoors, transient employment)	78 Fed. Reg., 2013, p. 3523, pp. 3555–3556, p. 3559, pp. 3592–3593, p. 3803
Controls for worker-related hazards to food safety	Controls that target individual-level factors	Food safety education and training, including required hygienic practices, methods for maintaining cleanliness, and requirements that workers notify supervisors of illness and be excluded from work while ill	78 Fed. Reg., 2013, pp. 3554–3555; pp. 3742–3743, p. 3802; 21 C.F.R. pt. 2, 2013
	Controls that target social and/or structural factors	Adequate sanitary facilities and equipment (features, location, access, resources and quality); cleanable food-contact surfaces; standardized training materials and schedules	78 Fed. Reg., 2013, p. 3523, p. 3554, p. 3556, pp. 3803–3804
Authority in worker-related food safety	Authorities	Owner, operator, or agent in charge of facility	78 Fed. Reg., 2013, p. 3733
	Qualifications and expertise	Outside experts (trade and industry associations, independent experts, regulatory authorities); microbiologists, engineers, maintenance supervisors; scientific and technical expertise	78 Fed. Reg., 2013, pp. 3730–3731
Regulatory frame	Relevant data	Food safety–related studies and perspectives; background and training of FDA personnel	78 Fed. Reg., 2013, pp. 3821–3824
	Problem scope	Hazards that are biological; known, reasonably foreseeable, and reasonably likely to occur; identified and occur at the food facility	78 Fed. Reg., 2013, p. 3732
	Perspectives and language	Worker controls as straightforward and universal	78 Fed. Reg., 2013, p. 3743
		Prevention of contamination by illness or infection as workers' individual responsibility	78 Fed. Reg., 2013, p. 3557

contamination, they may also transmit diseases to other workers, who may then transmit them to food.

The proposed regulations also recognize a role for workers' personal clothing or outer garments as factors that may harbor disease. In discussing standards for personnel during the harvesting, packing, and holding of raw fruits and vegetables, proposed regulations indicate that clothing may be contaminated with pathogens during work, and that "such contamination could be transferred from the clothing to [food]" (78 Fed. Reg., 2013, p. 3558).

Worker hygiene and behavior

The proposed regulations identify workers' hygiene

and other behaviors as hazards to food. Proposed regulations described these hazards as "poor hygienic practices," "inadequate personal hygiene," "poor worker hygiene," and "inadequate hygienic practices among workers." These hazards are further broken down into specific behaviors, such as improper hand-washing (e.g., rinsing hands without using soap), improper glove maintenance (i.e., using gloves that are unsanitary or not intact), and touching food with bare hands. The proposed regulations cite research on individual-level sources of risk, such as a worker's "false sense of security" when using gloves, which can lead to unsanitary practices like "wearing the same gloves for an extended period of time without cleaning them, or

washing hands infrequently” (78 Fed. Reg., 2013, p. 3559).

Worker behavior is also labeled as a hazard more broadly. The proposed regulations discuss an increased likelihood of food contamination from workers’ “unsafe produce handling and storage practice,” such as working while ill or touching food or food contact surfaces and not “[following] the correct food safety protocol” (78 Fed. Reg., 2013, pp. 3554–3555). Workers are also implicated for “[failing] to identify a situation that may result in contamination of food that is grown, harvested, packed, or held” (78 Fed. Reg., 2013, p. 3554).

Workers’ social status

To a limited extent, the proposed regulations suggest that workers’ level of education and literacy are relevant to food safety. Workers specifically are mentioned as factors that may impede effective implementation of food safety activities, such as food worker training. For example, in describing the development of new food safety training materials, the proposed regulations discuss the expectation that they be designed in a way to “help overcome literacy issues” (78 Fed. Reg., 2013, p. 3554).

Social and Structural Conditions as Hazards to Workers

Although the majority of the relevant text discusses workers as a direct hazard to food safety, as described in the sections above, some sections of the proposed regulations also consider how social and structural factors may influence workers as a source of food contamination, primarily through their effects on worker hygiene behaviors and related activities. As defined by the proposed regulations, the factors considered include the immediate work environment and relate to physical facilities, resources, and certain characteristics of jobs and working conditions in the production and processing sectors.

Physical facilities

Proposed regulations mention aspects of the physical work environment that may influence the likelihood that worker-related hazards lead to contamination. For example, in some sections there is a recognition of a role for sanitary facilities,

including hand-washing stations and toilets. At a fundamental level, the proposed regulations state that a sanitary facility “produces waste that can lead to contamination” (78 Fed. Reg., 2013, p. 3593). Thus the proposed regulations define an inadequate sanitary facility as “a portable toilet facility that leaks or a fixed toilet facility that lacks proper drainage or backflow devices,” which may contribute runoff and contaminate food, soil, or water (78 Fed. Reg., 2013, p. 3592). The idea of facility inadequacy was also extended to facilities’ locations or distances, frequency of cleaning, and the appropriate number of toilets and hand-washing stations. For example, the proposed regulations mention that sanitary facilities can be sources of hazards if their placement does not account for the layout of a production facility, or, in the case of fruits and vegetables, that “the growing area of a farm may spread across several acres of land” (78 Fed. Reg., 2013, pp. 3592–3593).

The design of work buildings and equipment is also considered as a hazard to worker-related food safety. The influence of “improper design” is characterized as food-contact surfaces and related workplace equipment that are difficult for food workers to access and clean (78 Fed. Reg., 2013, p. 3803).

Resources

The proposed regulations include some consideration for how inadequate resources in the work environment may influence food workers as sources of food contamination. These resources fall into two main categories: health and hygiene-related resources and training-related resources.

Discussion of hygiene-related resources as a hazard is limited to gloves and water. A brief section of text explained that gloves, themselves, “can transfer pathogens to [food] if the gloves become contaminated” (78 Fed. Reg., 2013, p. 3559). As a result, the proposed regulations recognize a role for gloves, when “dirty and damaged,” to influence the extent to which workers may handle food safely (78 Fed. Reg., 2013, p. 3523). The proposed regulations also consider a role for water quality (e.g., water contaminated with pathogens) in shaping worker-related hazards such as poor hygiene.

Another resource related to workers as hazards is training. Training is identified as a factor that may influence the extent to which workers' education level and literacy are hazards to food safety. Worker training and training materials are described as hazards when they are designed and delivered in a way such that "the person receiving the training cannot understand it" (78 Fed. Reg., 2013, p. 3555).

The nature of jobs and working conditions

Apart from inadequate facilities, equipment, and resources, the proposed regulations reserve a limited amount of text to discuss workers' day-to-day working conditions and the nature of agricultural jobs as potential sources of influence on worker-related food contamination.

One proposed rule focuses specifically on workers in produce packing, processing, and holding facilities. Work schedules in relation to the farm work environment (e.g., "workers may be in growing areas for extended periods of time") are specifically considered as factors that may affect worker-related food safety, such as workers' hygiene practice and proper use of sanitary facilities (78 Fed. Reg., 2013, p. 3593). The proposed regulations also mention that farm work is done predominantly outside and that the nature of this environment may influence the extent to which workers may contaminate food. The proposed regulations explain,

The outdoor nature of many areas where covered activities take place naturally presents workers with situations where they will get dirt on their hands, and workers may be routinely handling food, with their bare hands, that will not be cooked to adequately reduce pathogens. (78 Fed. Reg., 2013, p. 3559)

Beyond day-to-day working conditions, a few sections discuss the "transient nature" of agricultural jobs (including workers who are temporary, part-time, seasonal, and contracted) as a factor that may influence the ability of food facilities to address worker-related food hazards (78 Fed. Reg.,

2013, p. 3633). For example, the proposed regulations describe the challenge of reaching workers and ensuring delivery of food safety training in situations where farms "employ contracted harvest crews" and workers "move from farm to farm under the employment of the harvest crew company" (78 Fed. Reg., 2013, p. 3556).

Controls for Worker-Related Hazards to Food Safety

The proposed regulations identify controls (or requirements) that are described as sufficient to "significantly minimize or prevent [worker-related hazards] in order to prevent illness or injury" (78 Fed. Reg., 2013, p. 3731). These controls can be seen as further indication of FDA's understanding of the primary factors shaping the role of workers in food contamination. In this section, results are organized into two categories: (1) controls that target individual-level sources of worker hazards, and (2) controls that target social and/or structural sources of worker hazards.

Controls that target individual-level factors

Across the range of proposed controls for worker-related hazards, most focus on the individual level. These controls explain poor worker health, hygiene, and inadequate hygienic behaviors as issues of low knowledge and skill that are controllable through education and training. For example, highlighting the perceived importance of food safety knowledge in shaping workers' ability to handle food safely, the proposed regulations explain,

Educating personnel who conduct covered activities in which they contact covered produce and supervisors about food hygiene, food safety, and the risks to produce safety associated with illnesses and inadequate personal hygiene is a simple step that can be taken to reduce the likelihood of pathogens being spread from or by personnel to covered produce. (78 Fed. Reg., 2013, p. 3554)

In addition to food safety education, the proposed regulations highlight a role for specific hygienic practices (or behaviors) as methods for

“maintaining cleanliness,” managing hazards of health and disease, and ensuring sanitation (78 Fed. Reg., 2013, p. 3802). To maintain cleanliness, workers are to be instructed on proper outer garment use, jewelry use, hand washing, glove maintenance, use of effective hair restraints, and the storage of personal clothing, belongings, or equipment. Workers are also to be informed on where they may eat, chew gum, drink, or use tobacco, and to take precautions to prevent food contamination from other “foreign” substances, including sweat, hair, cosmetics, tobacco, chemicals, and medicine applied to skin (21 C.F.R. pt. 2, 2013; 78 Fed. Reg., 2013, p. 3802).

With regard to further controlling worker health and disease, ill workers are to be “excluded from operations where their presence could lead to contamination of food,” and they are instructed to “notify their supervisor(s) (or responsible party) if they have, or if there is a reasonable possibility that they have, an applicable health condition” (78 Fed. Reg., 2013, p. 3743; 78 Fed. Reg., 2013, p. 3557). The proposed regulations also outline that food facilities should ensure sanitation by developing procedures that ensure that workers “do not touch insanitary objects (e.g. waste, trash cans, the floor, and restroom fixtures or surfaces) and then food, food-contact surfaces, or food packaging materials,” without first washing hands (78 Fed. Reg., 2013, p. 3742).

Similar to requirements for food safety education, the proposed regulations aim to ensure food safety knowledge and behavioral requirements through training, a focus that underscores the FDA’s perception that worker knowledge is central in shaping food workers’ health and hygienic behavior as sources of contamination. As the agency asserts,

Because ensuring that covered produce is not contaminated is dependent on personnel following proper food safety and hygiene practices, all personnel who contact covered produce and food-contact surfaces must receive training. (78 Fed. Reg., 2013, p. 3555)

Alongside instruction on food safety, the

aforementioned hygienic practices, and “the danger of poor personal hygiene and insanitary practice,” the proposed regulations also call for worker training on how to recognize, inspect, and correct various food, equipment, and food container hazards (78 Fed. Reg., 2013, p. 3802; 78 Fed. Reg., 2013, pp. 3554–3556). Together, this instruction represents what the proposed regulations identify as minimum qualification and training standards necessary to minimize worker-related risks for food contamination.

By focusing on training and adherence to specific sanitary practices, the proposed regulations construct worker knowledge and skills as primary factors that determine the role of workers in food contamination, or poor worker health and inadequate hygienic practice.

Controls that target social and/or structural factors

A more limited amount of text from the proposed regulations describes controls for certain social and structural factors identified as affecting workers’ ability to handle food safely. These controls relate to (1) sanitary facilities, such as toilets and hand-washing stations, and (2) training materials and schedules. Together, these controls identify regulatory interpretation of the range of social and structural factors that are relevant to the role of food workers in food safety. They also outline the boundaries of perceived responsibility for the U.S. food safety system in relation to addressing worker-related food contamination.

Adequate sanitary facilities

The proposed regulations assert that controlling worker-related hazards requires adequate and readily accessible worker toilets and hand-washing stations. The proposed regulations define adequacy through a number of detailed facility specifications. These details cover equipment features (e.g., water that is safe, sanitary, of suitable temperature and pressure; plumbing and sewage disposal of adequate size and design to convey waste), location and access (i.e., accessible to workers and cleaning services but away from water sources, distribution systems, and “at a reasonable distance from growing and packing areas”), and overall quality (e.g., clean, well-maintained, and stocked with soap,

toilet paper, and drying devices) (78 Fed. Reg., 2013, pp. 3803–3804; 78 Fed. Reg., 2013, p. 3592). Though requirements related to the specific number of toilets to number of workers, maximum worker-to-restroom distance, and frequency of facility cleaning are not specified by the proposed regulations, the text connects these factors to food safety by pointing out that these requirements are to be attended to as prescribed by the Occupational Safety and Health Administration (OSHA) under the Occupational Safety and Health Act (specifically, 29 CFR 1928.10).

For these facility and resource requirements, the proposed regulations explain the influence on workers' food safety–related behaviors: “workers are more likely to use toilet facilities that are clean, well-stocked, and in good condition” (78 Fed. Reg., 2013, p. 3592). In addition to controls for sanitary facilities, the proposed regulations require that food-contact surfaces be designed in a way that is cleanable (78 Fed. Reg., 2013, p. 3523; 78 Fed. Reg., 2013, p. 3804). Together, these sections indicate that the proposed regulations account for elements of the immediate physical work environment, including workplace facilities and design, in shaping the role of workers in food contamination.

Training materials and schedules

The proposed regulations identify requirements for the design of worker training materials. These specifications are meant to address “poor training” and incomprehension (including that related to workers' level of education and literacy issues), which are described as “likely contributing factors” to foodborne outbreaks and contamination (78 Fed. Reg., 2013, p. 3554). The proposed regulations explain these design requirements as follows:

Training could be understood by personnel being trained if, for example, it was conducted in the language that employees customarily speak and at the appropriate level of education. In some cases it may be necessary to use easily understood pictorials or graphics of important concepts. (78 Fed. Reg., 2013, p. 3555)

To account for these resource-related and

worker-related hazards together, the proposed regulations call for the creation of training materials that are “standardized, multi-formatted, and multi-lingual, and available in pictorial format” (78 Fed. Reg., 2013, p. 3554).

In addition to training material design, the proposed regulations outline requirements for training schedules to address the transient nature of agricultural work. Specifically, in order to account for temporary, part-time, and seasonal agricultural workers, the proposed regulations specify that training must be made available upon hiring, at the beginning of each growing season, and periodically thereafter. In the case of workers who are employed on farms through harvest crew companies, the FDA outlines expectations that these companies provide training and verification thereof to farms (78 Fed. Reg., 2013, p. 3556).

Authority in Worker-Related Food Safety

The proposed regulations specify a variety of stakeholders, disciplines, and knowledge requirements that are seen as authoritative for developing, implementing, and controlling the food safety process. In this section, indications of the FDA's perception about whom and what should have power in worker-related food safety are described according to two main themes: (1) authorities assigned to create, manage, and define food safety; and (2) qualifications and expertise relevant to food safety.

Authorities assigned to create, manage, and define food safety

As a central part of the proposed regulations, facility management is required to develop written food safety plans. These plans document information about the preventive controls for a given facility, which include evaluations of food safety hazards, controls, and steps to monitor controls and to correct problems when they may occur. The proposed regulations described these plans as intended for use by auditors, inspectors, and a facility food safety team (discussed below under “Relevant qualifications and expertise”). They are also seen as tools for employee training, or to “make employees aware of food safety hazards” (78 Fed. Reg., 2013, p. 3733). As a whole, the food safety plan defines the food safety structure and process for a given

food facility, including the role of workers in this system. Though this plan affects and relates to all stakeholders of a facility, the authority to design and ensure requirements, including those for workers, is given to the owner, operator, or agent in charge of a facility; there is no discussion of required or recommended worker engagement.

Relevant qualifications and expertise

In addition to recognizing the roles of management or the owner, operator, or agent in charge of a facility, the proposed regulations identify specific industries and disciplines that command authority in defining and ensuring food safety. For example, in developing food safety plans, the proposed regulations allow involvement from “outside experts,” which are defined as trade and industry associations, independent experts, and regulatory authorities (78 Fed. Reg., 2013, p. 3730). The proposed regulations also mention that plans may be defined using a food safety team, which may include people who “bring specific expertise important in developing the plan” (78 Fed. Reg., 2013, p. 3731). Examples of eligible team members are described as a microbiologist who understands microbial hazards, an engineer with knowledge of heat treatments, and a maintenance supervisor who understands metal contamination (78 Fed. Reg., 2013, p. 3731).

All identified experts are subject to the proposed regulation’s definitions of a “qualified individual.” This title outlines the type of knowledge perceived to be relevant to define and ensure food safety for a given food facility. The proposed regulations explicitly state that this knowledge, which relates to food safety controls, hazards, and their associated monitoring and corrective actions, requires “scientific and technical expertise developed through training, experience, or both” (78 Fed. Reg., 2013, p. 3731).

The Food Worker Regulatory Frame

Stepping back from the literal guidance provided by the FDA on food workers and food safety, this section analyzes the underlying approach taken by the FDA in framing the proposed regulations. The role of workers in food safety is shaped by the FDA’s decisions about which data are relevant to

inform regulations, the definition of the scope of a problem and its solution, and the perspectives and language used to explain worker-related controls and hazards.

Data considered relevant to food safety regulations

The proposed regulations are described by the FDA as comprehensive and science-based. They are built from a foundation of literature identified by the FDA as relevant to food safety—defined as food safety data that are available. This characterization indicates that the proposed regulations (prior to accounting for input from commenters during the public comment process) are limited to evidence from studies and perspectives under the food safety umbrella, such as those currently published in food safety journals. The selection and interpretation of these data are further shaped, necessarily, by the backgrounds and training of the FDA personnel in charge of drafting the proposed regulations.

Definition of the scope of the problem and its solution

The problem of food contamination, including interpretation of the role of food workers, is oriented around identifying and controlling biological hazards that occur at the point of the farm or within the walls of the food facility. Hazards are defined as known, reasonably foreseeable, and reasonably likely to occur, and they are analyzed with food as the focal point, or, “for each type of food manufactured, processed, packed, or held at the facility” (78 Fed. Reg., 2013, p. 3732). Hazard analysis in relation to workers, therefore, is considered at the point of worker interaction with food, rather than at other levels of the food system process, such as broader social and structural factors shaping workers’ health and hygiene practice.

Perspectives and language for worker-related controls and hazards

In limited instances, the proposed regulations include statements of opinion or make choices about appropriate language that reveal what may be dominant perspectives within FDA on the genesis of poor health and hygiene behaviors in the food safety arena. For example, the proposed regulations

include documentation requirements for food safety plans. For controls to manage workers who are ill or infected, the proposed regulations make an exception that reveals a subjective interpretation of the ease with which human health and behavior can be understood and controlled:

A requirement in this regulation to develop written procedures for ensuring that this condition is met does not appear to be necessary, given the rather straightforward and universal nature of the controls (i.e., observe employees for signs of illness and redirect their activities accordingly). (78 Fed. Reg., 2013, p. 3743)

In another section, the provision requiring employees to report illness emphasizes that “individual workers have a responsibility—every day—to take action to prevent contamination due to their own illness or infection” (78 Fed. Reg., 2013, p. 3557). This statement individualizes the role of the food worker in food contamination and defines workers as rationally acting individuals who have complete control over their health and hygiene.

Discussion

The proposed rules document federal agency plans to address a problem or achieve a goal (Office of the Federal Register, 2011). The FDA’s proposed rules to implement the 2011 Food Safety Modernization Act provide valuable insight about how the federal agency accounts for food workers in food contamination and safety in domestic and foreign food systems. These official documents include information about how food workers are legally constructed as hazards to food and the FDA’s perceptions regarding the sources of influence for these risks, such as workers’ lack of food safety knowledge and skills. Agency plans also describe methods for controlling the hazards, and these approaches shape national and international norms around appropriate food safety interventions and food facility responsibility in supporting worker health and hygiene to ensure safe food.

The proposed rules provide examples of FDA perceptions that individual-level factors represent

central sources of risk for food and for food workers in food contamination. For example, workers are described as direct hazards to food through poor health and hygiene behaviors, including illness, inadequate personal cleanliness and sanitation, and unsanitary clothing. Among the factors that are identified as sources for these risks, the proposed regulations focus on insufficient food safety knowledge and skills. In some sections, proper health and hygiene are defined as issues of worker responsibility.

In line with food safety literature, these factors represent some of the key proximal risk factors for food safety threats, and workers’ food safety knowledge and skills, through training, represent important components of effective food control programs. Yet the responsibility for these hazards, and their remedy, may not be most appropriately placed on workers, and there is a need to look beyond the individual for social and structural root causes. Further, by interpreting the source of worker-related food contamination as within (or on) food workers, the proposed regulations also assume a sense of responsibility toward food work that may not be perceived when providers of food jobs are not acting responsibly toward workers (e.g., through low wages and lack of access to benefits). These dominant interpretations may relate, in part, to the FDA’s reliance on a regulatory frame that is informed by food safety data and a goal of identifying biological, facility-based hazards to food.

The proposed regulations provide some evidence that federal-level food safety systems account for social and structural context as a source of influence in worker-related contamination. For example, the proposed regulations consider that workers’ hygiene practice and access to training may be affected by the physical work environment and resources (large outdoor work spaces, improperly functioning sanitation facilities, damaged gloves), work schedules (long hours), and certain aspects of agricultural work (transient and varied terms of employment). However, despite the fundamental role for other social and structural factors, such as workers’ poor living and working conditions—including experiences of poverty and low-quality housing, low wages, poor treatment,

and lack of access to benefits—in shaping worker health (including anxiety, chronic stress, and infectious disease), these factors are noticeably absent from the proposed regulations' definitions of workers as a source of food contamination.

These legal constructions of the role of food workers in food safety, including factors that contribute to contamination, shape the types of interventions that are prioritized and perceived as appropriate to manage the issue. For example, the limited consideration for workers' social and structural context is reflected in the few interventions for adequate facility design and resources, which are identified to support food safety knowledge and proper hygienic practice rather than to help protect and promote workers' fundamental health. Further, though damaged gloves and personal clothing are implicated as sources of worker-related contamination, proposed controls focus on proper use, rather than workers' access to proper materials, including personal protective equipment. The primary focus of controls for workers, instead of controls for workers' context (social and structural environment), is underscored by proposed requirements to largely manage contamination by workers through training. As a core component of a prevention-oriented food safety framework, this requirement implies that worker experiences of poor health and improper hygiene are rooted in a lack of food safety knowledge and skill, which may be managed largely through work-based, targeted training around safety practices.

Even though food workers are often most closely connected to opportunities and barriers to implementing proper health and hygiene practice, these findings show that proposed regulations do not involve workers in opportunities to analyze and define food safety hazards and plans. This marginalization of workers is evident in proposed requirements that assign food safety authority to higher-level employees, and that suggest examples of food safety experts are those with training in scientific or technical fields. Given research that finds most food workers operate in front-line positions and, on average, hold a high school degree or less, these requirements systematically exclude the majority of food workers from the development, implementation, and enforcement of food safety systems in

their place of work. Accordingly, the proposed regulations omit an important opportunity to learn the insider perspectives of those whose behavior and health they aim to manage and change, and who may be most familiar with the relevant processes (Mitchell, Fraser, & Bearon, 2007).

Theory on social conditions as fundamental causes of disease posits that food safety policy that aims to account for workers' health and health behavior must also account for the broader macro-level structures, such as poor working conditions, by which these factors are shaped. For more effective food safety interventions, the FSMA and future food safety policy must attach working conditions (including worker pay, benefits, access to health and hygiene-related resources, and treatment) to food hazard definitions and control requirements. Stronger connections should be made between workers' housing, occupational health, and/or safety protections and safe food. Food workers must also be explicitly recognized as sources of food safety authority and, accordingly, be represented on food safety teams that develop and implement facility food safety processes. At the national policy level, workers' participation in food safety may be supported by worker centers, unions, and national coalitions of food-worker organizations such as the Food Chain Workers Alliance. These groups may facilitate broad worker engagement in the public comment process, where workers' perspectives on key food safety hazards and controls may directly inform future food safety rules.

There are a few organizations that have begun to encourage worker involvement in food safety and working conditions through independent labor standards. Two examples of these programs are Oxfam's Equitable Food Initiative (EFI) and the Coalition of Immokalee Workers' Fair Food Program (FFP). For EFI, independent standards for working conditions and worker involvement are explicitly joined with standards for pesticide management and food safety, such that the issues are understood as interrelated and perceived as mutually enforcing (Equitable Food Initiative, 2014). The FFP aims to "affirm the human rights of [Florida] tomato workers and improve the conditions in which they labor," where a food

safety connection is not explicit (Coalition of Immokalee Workers, n.d., para. 2). Nevertheless, both programs work through partnership among produce workers, growers (or employers), and retailers to promote working conditions, health, and safety above and beyond the requirements established by existing government regulations and labor protections.

These programs represent valuable case studies to better understand and address poor working conditions as an issue of food and public safety. Public health researchers and practitioners should pay attention to and promote the evaluation of these efforts, particularly with regard to the impact of each standard on workers' health and hygiene practice and for reducing food contamination and outbreaks. As each program includes diverse components or tools to improve working conditions, these programs also represent opportunities to identify new food safety indicators and points for intervention that are directly related to working conditions. Supporting and investigating these programs will be important to future food safety research as well as for enhancing local, state, and federal government frameworks for ensuring safe food.

There are some limitations to the analysis presented. The density and complex language of the proposed regulations may mean that certain nuances characterizing food workers in food safety were missed. However, careful and repeated review of study documents, inclusion of second-coder verification, and input from researchers with legal training were used to help address this potential. Results should also be interpreted with the understanding that reviewed food safety provisions were in a proposed state; the FDA has since received and incorporated comments from the public. It may also take years before the rules are implemented. Though rules may change in their final form, FDA memos and supplemental proposals suggest that the worker-related sections analyzed in this paper are unlikely to be revised (U.S. Food and Drug Administration, 2013a, 2013b, 2014). Finally, the discussion is partly premised on the idea that the amount of text devoted to an issue reflects importance, and this may not be so. Despite these limitations, the reviewed documents are instructive

for understanding how the FDA currently thinks about, and shapes the foundation for addressing, the role of food workers in food contamination and food safety.

Conclusion

The findings from this study describe the framework by which the FDA defines and aims to manage the role of food workers in U.S. food safety systems. Despite literature documenting the impact of food workers' poor living and working conditions on worker health and hygiene behaviors, results indicate that these factors are largely absent from the proposed regulations' definitions of workers as a source of food contamination and interventions to prevent food contamination by workers. Even though the proposed regulations represent minimum food safety standards specifically for food production, processing, and distribution facilities, their definitions of relevant food safety authorities exclude food workers, whose insights could be essential in driving effective practice to improve safe food handling.

The disconnect between food workers' social and structural context and regulations to address their role in food contamination represents a critical food safety issue that may lead to insufficient food protection and increased risks for both worker and consumer health. By defining worker-related contamination as largely due to knowledge and training—and not macro-level factors that also shape workers' health and hygiene—the proposed rules may also support a system that responds to foodborne disease by blaming the worker.

Future research should continue to build the evidence base clarifying the impact of poor living and working conditions on food workers, food safety, and public health. This work may also explore opportunities to improve the visibility of these issues among policymakers and on the public policy agenda. Such efforts may benefit from collaborations among researchers and practitioners in social science, groups focused on food working conditions and food safety, and food workers across sectors. Though these stakeholders are not recognized as relevant to food safety in the proposed regulations, their unique perspectives on the

factors shaping health and hygiene may help to build more effective interventions to prevent contamination by workers. Finally, these groups should disseminate this work by taking advantage of federal rulemaking opportunities to shape and inform future food safety regulations, such as through participation in the public comment process.



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Cultivating equitable ground: Community-based participatory research to connect food movements with migrant farmworkers

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Abstract

Despite popular momentum behind North American civil society initiatives to advance social justice and ecological resilience in the food system, food movements have had limited success engaging with migrant farmworkers. This article describes a partnership between a nonprofit food

network organization in Ontario, Canada, with a mandate to advance healthy food and farming across the region and university researchers. The purpose of this community-based research was to gather a broad range of actionable ideas from key informants to advance health and equity conditions of migrant farmworkers. “Key solution ideas” were

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gathered primarily through 11 in-depth interviews and ongoing feedback from relevant actors. We reflect on the unique features of approaching this often-divisive area of inquiry through a university-community partnership. Reviewing the solution ideas, we categorize proposals for advancing farmworker health and equity under four broad themes: (a) health and safety, (b) farmworker recruitment and mobility, (c) community building and social integration, and (d) immigration policy. We then critically evaluate the constraints and opportunities for addressing proposals through a network-based food organization that takes a “big tent” approach to collaborative action on polarizing issues. A tension for such organizations is taking meaningful action while avoiding overly polarizing political stances, which can alienate some members and neglect obligations to funders. Notwithstanding such tensions, community-university research partnerships have the potential to expand spaces for advancing equity with farmworkers. As food networks are seeking to build meaningful alliances with migrant justice and labour movements, this study provides a timely contribution to literature and practice at the intersection of community-based participatory research, sustainable food networks, labour, and immigration.

Keywords

alternative food networks, community-based research, food movement, labour, migrant workers, sustainable food system

Introduction

For many initiatives that aim to advance a more just and sustainable food system, issues concerning migrant farmworkers are ripe with tensions. While food movements have actively focused on issues of social justice and ecological sustainability, in the eyes of farmworker advocates, supporters of these movements have been disengaged, in conflict with, or unsupportive of farmworker equity (Ramsaroop & Wolk, 2009). Despite interests in reconnecting consumers with food producers and developing initiatives that promote appreciation of farmers, hired farmworkers have been notably absent from conversations on how

to advance equitable and sustainable food systems (Ekers, Levkoe, Walker, & Dale, 2015; Gray, 2014; Minkoff-Zern, 2014; Sbicca, 2015). This is particularly the case for those who migrate across international borders for seasonal farm employment (Hjalmarson, Bunn, Cohen, Terbasket, & Gahman, 2015; Preibisch & Grez, 2014; Weiler, Otero, & Wittman, 2016). In Western Europe and North America, migrant farmworkers are rarely recognized on promotional materials for local food, invited to farm-to-table events, or represented within food policy organizations that discuss issues affecting their lives.

Ontario,¹ Canada, reflects a number of these tensions: on the one hand, popular efforts are underway to promote ecological and socially just alternatives to the dominant food system; on the other hand, the economic viability of food production and processing continues to depend on migrant farmworkers who face deep-seated racial and economic inequalities. Many Canadians deem farm work an unattractive career, based on its working conditions, low levels of remuneration, rural location, and low prestige. Farm operators are faced with pressure to keep food prices low in order to compete in a globalized market, so minimizing labour costs while increasing productivity is a key strategy for maintaining viability. In addition, farm employers and farmworkers operate within a weak regulatory environment for supporting the economic viability of environmentally sound agriculture and more equitable farm labour conditions. The ensuing farm labour shortage can thus be understood as a lack of people willing to accept constrained wages, working and/or living conditions when they have viable alternatives (Reid-Musson, 2014).

In response to farmers’ experiences of labour shortages, migrant farmworker programs have been designed to recruit people from the Global South to work and live in Canada on a temporary basis. Because of extreme global inequalities, migrants tend to evaluate farm wages and conditions in Canada against a reference frame of poverty, a

¹ In Canada, labour and agriculture fall under provincial jurisdiction, while immigration is primarily the purview of the federal government.

lower currency rate, and unemployment in their sending countries (Binford, 2013). Many migrants emphasize the importance of being able to support themselves and their families through Canada's temporary farmworker schemes, and 70 percent of surveyed Seasonal Agricultural Worker Program employees reported overall satisfaction with the program (Verduzco & Lozano, 2003). Simultaneously, however, many migrants describe persistent language barriers, social isolation, unsafe and unhealthy working and living conditions, structural disregard for their knowledge and skills, discontentment with program rules, structure, and implementation, and few opportunities for integration into local communities (Basok, Bélanger, & Rivas, 2014; Binford, 2013; Preibisch & Otero, 2014).

Recognizing the potential for funnelling some of the resources and enthusiasm of popular food movements toward addressing local and global inequities that shape the employment of migrant farmworkers, in this article we describe a university-community partnership project that aimed to bring together a wide range of affected groups in advancing migrant farmworker health, equity, and dignity. The project was initiated jointly by Sustain Ontario, a nonprofit organization that encompasses a coalition of organizations from different sectors across the province, and researchers at the University of Toronto. Together, we were part of a community service-learning (CSL) course, gathering ideas from key informants to advance an actionable vision for equitable and viable agricultural labour for Ontario food movements. In the following section, we first set the context by explaining the circumstances of migrant farm labour and sustainable food movements in Ontario. Next, we discuss our methodologies and our initial findings, which are organized into four thematic areas that propose solutions for advancing farmworker health and equity. We conclude by discussing the implications of this research and ways in which it could be advanced. This study contributes to literature on (im)migrant farm labour policy as well as community-based participatory research. We illustrate how productive tensions inherent to community-university research partnerships can be harnessed to broaden conver-

sations and alliances for advancing justice in the food system.

Migrant Farmworker Employment

In 1966 agricultural groups reporting labour shortages successfully lobbied the Canadian government to initiate a pilot migration program for temporary farm workers. Today, most migrant farmworkers in Ontario come from Mexico or Commonwealth Caribbean countries and are hired through the Seasonal Agricultural Worker Program (SAWP) (McLaughlin & Hennebray, 2013). Today, the SAWP constitutes one of several agricultural streams of the overarching Temporary Foreign Worker Program (TFWP). The SAWP involves bilateral agreements between sending and receiving countries, with temporary work visas that last up to eight months at a time. A growing number of farmworkers, however, are hired from countries such as Guatemala, Peru, Thailand, the Philippines, and Indonesia through "low-skill" agricultural streams of the TFWP, which do not involve bilateral agreements. Farmworkers hired through these less regulated non-SAWP streams may work in Canada on 48-month work permits for a maximum of four accumulated years, after which they are ineligible for four years; this has been called the "4-and-4 Rule" (Faraday, 2014).

Proponents of the program argue that Canada's TFWP benefits migrants and their families through remittances, prevents undocumented settlement in Canada, and provides a relief valve for sending-country governments facing pressures of local poverty and unemployment (McLaughlin, 2010). In contrast to the unpopular U.S. H-2A program, Canada's agricultural TFWP is rated favourably among farmers who seek manually skilled, reliable, and affordable farm labour (Binford, 2013; Smith-Nonini, 2013). With farm employers continuing to report labour shortages each year, the program has grown from 264 farmworkers in its pilot year (1966) to approximately 45,000 in 2013² (Employment and Social

² This figure roughly approximates the total number of workers, representing only the number of approved Labour Market Impact Assessments. As noted by ESDC (2014): "Because SAWP workers may work for more than one

Development Canada [ESDC], 2014; Satzewich, 2007). While the TFWP is premised on addressing *temporary* labour and skills shortages (Citizenship and Immigration Canada [CIC], 2015), it is clear that temporary migration schemes are an enduring feature of Canadian agricultural, labour, and immigration policy. Scholars have argued that at the level of Canadian corporate and foreign policy, the Canadian state is complicit in generating poverty in the Global South and thereby shaping farmworker migration practices (Walia, 2010, 2013), as in the case of two million Mexican peasants whose livelihoods were undermined by the North American Free Trade Agreement (Otero, 2011).

Critics of the TFWP point out that farmworkers are left to the arbitrary disposition of employers, government agents, and profit-seeking job recruiters with little recourse to ensure their well-being (Binford, 2013; Faraday, 2014). To be clear, our review of such critiques is not intended to vilify farmers, many of whom exemplify high standards of employee relationships, but rather to point out how temporary farm labour arrangements create structural inequalities and vulnerabilities for farmworkers. For instance, migrant farmworkers' temporary visas are tied to an individual employer, which makes it very difficult for farmworkers to transfer employers when they encounter problematic work and/or living arrangements (McLaughlin, Hennebry, & Haines, 2014). This difficulty is compounded by migrant farmworker living accommodations, which are generally on the same site where employers work and reside (McLaughlin, 2010). Employers and sending-country consulates have the capacity to repatriate workers without a grievance procedure for "non-compliance, refusal to work, or any other sufficient reason" (ESDC, 2015a, Sec. X, item 1). The only mechanisms for farmworkers to ensure their job security are to receive a positive end-of-season employer evaluation and/or to be requested by an employer to return the following year. These features of the TFWP make it difficult for farm-

workers to refuse employer requests for long hours or high-risk work (Binford, 2009). While researchers have documented cases of migrant farmworkers who have worked seasonally in Canada as long as three decades (Preibisch, 2012), migrants are denied access to permanent residency or citizenship and the numerous rights, entitlements, and social recognition associated with a more secure immigration status. In effect, they are both "precarious" (Faraday, 2014) and "permanently temporary" (Hennebry, 2012).

With approximately 23,000 TFWP farmworkers hired in 2013, the province of Ontario is the top employer of migrant farmworkers (ESDC, 2014). Farm labour legislation in Ontario reflects the ideology that agriculture is an "exceptional" industry because it is uniquely subject to natural variables such as weather that farmers cannot control, because it meets the fundamental human need for food, and because relatively inexpensive food costs allow wages for all other workers to remain low (Barnetson, 2009, 2012; Tucker, 2006). Proponents of agricultural exceptionalism (which is also prevalent in the United States) have consequently argued that standard labour laws should not apply to agriculture. While migrant farmworkers must be paid a minimum wage (ESDC, 2015b), they are excluded from legal minimum standards regarding maximum hours of work, overtime pay, periods of rest, eating periods, vacation, and public holidays (Ontario Ministry of Labour [OML], 2006, 2011). Prior to 2006, farmworkers were excluded from the Occupational Health and Safety Act, and they are still prevented from joining unions.

Sustainable Food Networks and Migrant Justice

Among initiatives that aim to build more socially just and ecologically resilient food systems, efforts to address farmworker inequalities have faced an array of challenges. Disproportionate whiteness and class privilege within many sustainable food initiatives tend to encourage activities based on consumption that unduly benefit relatively privileged "consumer-citizens," thereby reifying social inequalities (Bradley & Herrera, 2015; Gibb & Wittman, 2013; Ramírez, 2014; Turje, 2012). In

employer during the growing season (e.g., transfers), the total number of SAWP positions reported in this table does not reflect the actual number of seasonal workers in Canada during that period."

sustainable food initiatives, consumer-citizens based in urban areas far outnumber rural food producers, and the social and geographic distance generates a lack of understanding about farmworkers' day-to-day realities. Scholars have cautioned that food movements' intense focus on promoting the social recognition of farmers can alienate farmworkers and normalize the ideology that agriculture should be exempt from basic labour standards (Weiler et al., 2016). Furthermore, a narrow focus on developing alternative food initiatives may sideline broader engagement with farmworkers embedded in the so-called industrial food system (Myers & Sbicca, 2015).

With the aim of improving conditions for farmworkers, several food movement initiatives have focused on labeling schemes to certify that food is produced under ethically sound labour conditions. These include the Coalition of Immokalee Workers' Fair Food Program (Asbed & Sellers, 2013), which involves partnerships with major food retailers and fast food chains; various U.S. domestic fair trade labels overseen by third-party certifiers; and the Local Food Plus label in Canada (Friedmann, 2007). Further, Canada's student-led Meal Exchange draws on the success of the U.S. Real Food Calculator for ethical food procurement in postsecondary institutions, which includes an evaluation of fair labour practices. Critical food studies scholars, however, have critiqued such "shopping for social change" strategies for reinforcing the idea that social and environmental problems can and should be addressed through the buying power of consumer-citizens (Baumann, Engman, & Johnston, 2015; Johnston, 2008). Examining U.S. domestic fair trade schemes, Brown and Getz (2008a, 2008b) point out that these certified labels let both government and industry off the hook by privatizing regulatory functions that should apply to all employers, and not merely to those who voluntarily choose to certify (Guthman, 2007). Brown and Getz (2015) argue that certification and labeling should prompt, rather than replace, collective action and labour regulation. While endorsing such analyses, Alkon (2014) contends that within the current climate of neoliberalism, market-based strategies may also create spaces—however imperfect—for farm-

workers to articulate the political changes they would like to see in the food system.

As distinct from market-focused food movement efforts, some Canadian food network organizations have recognized the need to address structural issues affecting farmworker health and equity. At the national level, for instance, the grassroots-driven People's Food Policy document outlines a comprehensive vision for a Canada-wide food policy. It calls for "enforced legislation...to ensure that non-citizen workers on farms are fairly treated; given decent housing and wages; enjoy safe and humane working conditions; have access to health care and citizenship rights, all without reprisals" (Food Secure Canada, 2015, p. 16). As a complement to food movement organizing at the national level (e.g. Food Secure Canada, an alliance-based, pan-Canadian food organization), organizations like Sustain Ontario focus on food- and agriculture-related concerns that fall under regional and provincial jurisdiction (Levkoe, 2014). Sustain Ontario operates as a member-based nonprofit network organization that promotes healthy food and farming across diverse sectors, scales, and places. Its web of relationships makes it accountable to a range of groups, including some that have a vested interest in maintaining the status quo (e.g., farmer commodity associations).

When advocating for healthier, more equitable farmworker livelihoods, network organizations such as Sustain Ontario face both limitations and opportunities. Government authorities routinely contact members of the Sustain Ontario network to gather feedback on food and agriculture-related policy issues (Levkoe, 2014). However, the organization's reputation among provincial policy-makers as a reliable representative of diverse perspectives limits the extent to which it can endorse views that might be perceived as overly critical. Meaningfully advancing equity with migrant farmworkers would entail a radical restructuring of agriculture, labour, and immigration over the long term, but Sustain Ontario's charitable status limits the degree of political advocacy in which it can engage. Grassroots organizations preferring a more confrontational activist approach have thus criticized Sustain Ontario for not taking a stronger stance on controversial issues. Network organizations like Sustain

Ontario often face a tension between maintaining a broad network that acknowledges multiple perspectives and articulating a single common voice (Levkoe, 2015). The advantage of Sustain Ontario's network-based, big-tent approach is that the organization is uniquely positioned to help convene collaborative action to scale-out existing community-based efforts (i.e., generate new member initiatives) and scale-up policy shifts (i.e., address systemic challenges such as state and corporate regimes that support unsustainable forms of agriculture). Whereas other grassroots and union movements might view polarization and fragmentation as necessary consequences of dismantling the status quo for farmworkers, Sustain Ontario's mandate is to take a systems-wide approach that involves a broad range of affected groups.

Methodology and Approach

Sustain Ontario and its members have discussed issues of food and farm labour in the past, yet there has been little capacity to move any significant initiatives forward. In 2014 a community-university partnership was developed with researchers at the University of Toronto through Planning for Change: Community Development in Action, a CSL course in the Department of Geography and Planning. Unlike most CSL experiences, Planning for Change is an eight-month graduate-level class that enables community partners to develop research projects in collaboration with the students and instructors (Levkoe et al., 2014). Working together to design and implement the project, graduate student Anelyse Weiler led the research team that included Carolyn Young (then director of Sustain Ontario) and course co-instructor Charles Levkoe.

While researchers have rigorously explored the problem context of health equity and justice for migrant farmworkers, it has proved more difficult to identify constructive, actionable, and feasible solutions with broad-based buy-in from relevant parties. The initial phase of this project involved gathering a wide range of ideas from affected groups on the question: how might Ontario's food movements advance existing efforts to promote health equity, dignified livelihoods, and justice with migrant farmworkers? Most of the data for this

phase came from 11 in-depth interviews with key informants engaged in migrant farmworker employment in Ontario. We collected additional data through reviews of academic literature and civil society reports, as well as some participant observation. Interviews included people representing farmers and farm industry, public health, farmworker justice organizations, union labour, academia, and the provincial government.³ We sought to learn about the work of these organizations, their challenges, and their ideas for actionable ways through which the Ontario food system could become more equitable for farmers and farmworkers alike.

As part of Farmworker Awareness Week (March 24–31, 2015), Sustain Ontario published *Know Farmworkers, Know Food*, a seven-part blog series that focused on a set of key solution ideas gathered through our interviews. Some articles in the series were reblogged by Justicia for Migrant Workers, a transnational volunteer-based organization that promotes the rights of migrant farmworkers in Canada. Interview transcripts were analyzed through line-by-line thematic coding to identify recurrent or prominent solution themes. While they are not included as part of the formal data set, additional data were collected by gathering feedback on the blog series through a survey; social media conversations; and an interactive workshop as part of a conference that included academics, farmers, food justice and farming groups, and a nonprofit dedicated to farm labour.

Key Solution Ideas

The major solution ideas that informants proposed for Ontario food movements to collaborate on advancing farmworker health equity, livelihood quality, and justice were organized into four broad thematic areas: (a) health and safety, (b) farmworker recruitment and mobility, (c) community-building and social integration, and (d) immigration

³ While we attended a public tour that included migrants, we did not interview farmworkers themselves. This was due in part to the timing of the project during the farming off-season and the logistical difficulties of reaching rural areas. In addition, migrant farmworkers represent a higher-risk group for research because language barriers may be a factor and because of their precarious, "deportable" immigration status.

policy. In this section we outline each one. While these proposed solutions emerge from Ontarian and Canadian policy contexts, many of the broad principles, such as greater social recognition of farmworker contributions and advocacy for immigration reform, are highly relevant to food movements elsewhere.

Health and Safety

Initiatives to advance farmworker health and safety are strongly grounded in the priorities voiced by farmworkers, along with a wealth of evidence about farmworker health and safety inequities in Ontario and accompanying proposals for policy solutions (McLaughlin, Henneby, Cole, & Williams, 2014; Pysklywec, McLaughlin, Tew, & Haines, 2011). Numerous collaborative farmworker health initiatives involving academics, health practitioners, and civil society groups have made headway in Ontario, such as migrant farmworker health clinics that have been granted pilot funding by provincial health authorities. Furthermore, such initiatives present the advantage of appearing pro-business and relatively neutral in political terms. As one informant involved in a farmworker health equity project articulated, “Farm owners understand that a healthy workforce is a productive workforce. We should use this as an opportunity to bring farm owners/employers on board to champion this message” (Interview, November 26, 2014).

Some informants suggested that food movements could advance farmworker health equity through advocacy for improved accessibility of rural health services targeted at migrants, such as specialized clinics and mobile health units. Furthermore, one farm employer was adamant about changing immigration and employment insurance policies for migrants who become ill or injured:

In the case of illness, don't repatriate them until they're fully treated...If they get sick, they should stay until they are fully recovered and no longer require medical care. Because in Jamaica, they do not have free medical care, they have to pay for it. And since they are paying employment insurance premiums and not able to collect...either don't take it from

them, or give them rights to it. You know, it's *not* right for them to pay into a system that they do not benefit from. Because if they are unable to work for two weeks, they're repatriated. They must be repatriated. We, as employers, don't even have a choice on that. (Interview, October 29, 2014)

In addition, informants suggested establishing a standardized health and safety orientation and “welcome package” (including migrants' health cards). One informant indicated that Canada Border Services Agency could facilitate a workshop on migrant health and safety rights immediately upon their arrival in Canada. However, third-party organizations such as the Red Cross or Doctors Without Borders might be better placed to lead an orientation of this kind.

A further opportunity for advocacy concerns is the Employment Standards Act, which came under provincial government review in 2015 for its relevance to newer and more precarious forms of work. A summary of policy points from this study was presented to the Ministry of Labour as part of its Changing Workplaces Review public consultation process. This review coincided with a 2013 challenge from the provincial Ministry of Agriculture for the agri-food sector to double its annual growth rate and generate 120,000 jobs by 2020 (Ontario Ministry of Agriculture, Food and Rural Affairs [OMAFRA], 2015). When we inquired with a representative of the Ministry of Agriculture, however, it was unclear how the government might ensure or measure the quality of these proposed jobs. This potential inconsistency presents an opportunity to align government efforts to create more agri-food jobs with efforts to ensure that those jobs are healthy, well-protected, and provide liveable wages.

Farmworker Recruitment and Mobility

A second critical area for advocacy raised by informants involves farmworkers' inability to leave abusive or otherwise undesirable employment arrangements without risking unemployment, deportation, and the loss of future job opportunities in Canada. For instance, one farmer proposed that farmworkers should have the option of switching farm

employers and the option of selecting particular farms where they would like to work: “While they are not legally prohibited from requesting work on a different farm, the system is set up in such a way that it almost negates that right” (Interview, October 29, 2014). This aligns with calls from migrant advocacy organizations for farmworkers to be granted open work permits (i.e., not job-specific or requiring proof that employers tried to hire locals first) rather than permits that are tied to specific employers.

A related suggestion for advocacy pertains to newer and increasingly popular non-SAWP streams of the TFWP. In the case of the SAWP, consulates or liaisons are theoretically responsible for mediating worker-employer conflicts, helping farmworkers access their rights and benefits, assisting with transfers to other jobs, and arranging repatriation of workers. Without a bilateral agreement between sending and receiving countries, farmworkers hired under non-SAWP streams of the TFWP do not have consulates or liaisons appointed to ensure their rights. Consequently, scholars and activists have warned that these non-SAWP streams leave farmworkers more vulnerable. Non-state private-interest groups who oversee labour recruitment may subject workers to disciplining (Valarezo, 2014). In other cases, private recruiters who oversee job recruiting may illegally charge migrants a fee for a job that does not exist, leaving them in debt (Faraday, 2014). To this end, Ontario could adopt legislation similar to Manitoba’s Worker Recruitment and Protection Act, which proactively prevents extortion by recruiters (Faraday, 2014).

Community-Building and Social Integration

Suggestions to advance community-building among farmworkers and resident communities bear affinity with many of the activities in which Ontario’s food movements are already engaged. These include building networks, establishing co-ops and community gardens, and promoting the social recognition of migrant farmworkers alongside other local producers. Over the long term, such efforts could serve to debunk racial and cultural stereotypes about migrant workers, provide opportunities for mutual learning of new languages,

and support efforts to welcome migrant workers as full community members rather than as labourers alone. Existing efforts to strengthen linkages between urban food movement initiatives and rural farmworkers include director-producer Min Sook Lee’s (2012) documentary about a migrant farmworker meeting with homeless youth who grow their own food in a Toronto community garden. This story exemplifies how groups of people who face distinct forms of marginalization in the food system can find common ground in their struggles against poverty and toward dignity.

Some rural Ontario towns have experienced racial conflict and power imbalances between migrant farmworkers and year-round residents. In the greenhouse and tomato-producing town of Leamington, the Ontario human rights tribunal in 2013 ordered a local greenhouse owner to pay CA\$23,500 to a former migrant farmworker who was found to have been subject to racist slurs by a supervisor. That same year, the mayor singled out Jamaican farmworkers for allegedly sexually harassing local women and thereby spreading a “cancer” in the town (Boesveld, 2013). In order to promote inclusivity between farmworkers and year-round residents, one informant suggested strategies to highlight the vital economic contributions of farmworkers to rural communities. For instance, this might involve mayors of rural towns hanging a welcoming banner each season or profiling farmworkers in local agri-food and tourism marketing materials. In addition, a farmer-friendly organization like Sustain Ontario could reach out to municipal agricultural county committees to increase their awareness of resources for farmworker employees, such as rural health-related resources of which many employers may be unaware. A migrant activist noted that some farmworkers bring seeds and seek spaces to grow some of their own culturally relevant food while in Canada. She commented, “In many of the regions where migrant workers work...there’s all of these community tensions between migrants and non-migrants, and animosity between the two groups. So how about a community garden? Could that bring people together?” (Interview, January 19, 2015). The same informant proposed establishing a farming co-op in which farmworkers who wished to stay in

Canada would collaborate as member-owners. She emphasized that this workplace business model would allow workers to have “more of a say in what goes on, what happens; they have more of a say in what they do with their hands. That way, they are not so alienated from their own work” (Interview, January 19, 2015).

Beyond community-building at the level of individual communities and among farmworkers, one informant cited the need for convening a network of farmworker allies across the province. Rather than creating additional work for participants, such a network could serve as a venue for sharing challenges and successful strategies, avoiding duplication of efforts, and pooling resources toward common causes to advance farmworker health and justice. Existing networks such as Ontario’s Migrant Worker Health project might serve as an important starting point for a broader network of this kind.

Immigration Policy

Several informants, including a farm employer, migrant justice group members, and a union leader, stated that migrant farmworkers should have the option of becoming permanent residents or citizens (e.g., having the option of applying for permanent residency, or receiving permanent resident status on arrival along with the regularization of immigration status for all current migrants in Canada). The national coordinator of the United Food and Commercial Workers (UFCW) union noted that in provinces outside Ontario and in industries other than agriculture, the UFCW has successfully negotiated a mandatory stipulation in workers’ collective agreements for employers to nominate migrants for permanent residency through the Provincial Nominee Program (PNP). However, as noted earlier, current legislation in Ontario does not permit any farmworkers—whether migrants or permanent residents/citizens—to join a union. Some informants argued that farmworkers should have this option.

In addition, some informants called for an end to the aforementioned 4-and-4 Rule. Scholars and migrant-rights activist organizations have argued that this rule is racially discriminatory and treats workers as disposable. They contend that the rule

unfairly forces non-SAWP workers to sever relationships they have built in Canada over four years, may incentivize visa overstaying in order to pay off recruiter debts, and perpetuates the inaccurate idea that migrant employment regimes are temporary (Keung, 2015). An unexpected finding from our study was that farm commodity organizations like Mushrooms Canada, which represents farmers who depend on year-round employees, were also protesting the 4-and-4-Rule, and calling for migrants to have access to permanent residency because they had invested significantly in workers’ job training.

Discussion

The Spaces and Constraints of Working Under a “Big Tent”

The four thematic areas of solution ideas represent preliminary findings that require additional research to assess their feasibility among food movements and possibility of implementation. Further research is also required to assess how this study might build on the success of other related farmworker health and justice equity initiatives (Weiler et al., 2015). For instance, a notable area of potential advocacy that was not raised in our interviews would involve confronting the power of major food purchasers to shape working conditions and wages down the food chain. Initiatives such as the Coalition of Immokalee Workers in Florida have made important headway in harnessing the power of major food retailers and fast-food companies to ensure better wages for farmworkers, farmworker-driven monitoring and enforcement of workplace conditions, and zero tolerance for modern-day slavery (Asbed & Sellers, 2013). Through additional workshops and conferences, subsequent phases of this ongoing project have been focused on collaboratively prioritizing particular solution areas and identifying actors who are committed to advancing them.

To that end, Sustain Ontario’s big tent mandate to encourage collaboration across a wide range of affected network groups presents notable tensions. Sustain Ontario’s reputation for representing moderate, balanced perspectives has enabled it to build strategic rapport with prominent government

and industry actors. In some cases, this can generate pressure to de-emphasize solution ideas for farmworker health and justice concerns that might appear unfeasible in the eyes of certain groups or overly polarizing, such as the proposal that farmworkers should have the option of unionizing in Ontario or receive landed immigrant status upon arrival in Canada. In the climate of “advocacy chill” in Canada (Evans & Shields, 2014), Sustain Ontario has faced restrictions on the kind and extent of political advocacy in which it can engage.

More specifically, Sustain Ontario faces internal pressure to prioritize the interests—with the associated funding grants—of its paid membership, which includes many farmers and farming organizations, but does not yet include farmworker groups. While the economic viability of Ontario farmers and local food availability undoubtedly depends on hired farmworkers, some members of Sustain Ontario nonetheless perceive farmworker-related initiatives as organizational “mission creep.” A commitment to championing local farmers can clash, on occasion, with efforts to simultaneously support farmworkers. For example, farm employers might view campaigns to increase the farmworker minimum wage and overtime and vacation compensation as exacerbating an existing “cost-price-squeeze” (Barnetson, 2009). That is, farm operators often explain that they face rising costs with diminishing returns, and minimizing labour costs and/or eliminating farm jobs through labour-saving technologies becomes one of the key strategies for remaining viable. In the words of one informant from a farming organization, “If you’re a farm employer and you’re not trying to figure out how to kill a job, you might be in trouble” (Interview, October 24, 2014).

Furthermore, in discussing features of Canada’s temporary farmworker arrangement that make workers systemically vulnerable (e.g., the arbitrary power that employers hold over farmworkers’ on-site living accommodations), farm operators may interpret systemic critiques as unfounded personal attacks or overgeneralized slander. Such conflicts reflect, in large measure, dominant systems of private property and racial/citizenship privilege that disproportionately advantage farm employers with Canadian citizenship or

permanent residency. We contend, however, that food movements can play an important role in supporting efforts such as those described by interview informants, including pay equity policies within small enterprises or co-operatively owned farming ventures. However modest, such projects would help to give substance to possibilities for food production beyond a zero-sum system of capitalist power and profit that sets farmers and farmworkers against one another.

While working toward a food system that fundamentally supports equal access to material and social resources necessary for all people to thrive, it is critical not to paint over differences of power across affected groups. As a long-term struggle, equalizing differences of power between migrant farmworkers and Canadian residents would entail not only providing full immigration status to migrant workers, but also addressing racialized and gendered global inequalities. Amidst the necessarily messy interim process of working toward justice, network-based food organizations might play a strategic function in identifying and mediating the advancement of common ground across sectors, scales, and places. As suggested by one of the study’s informants, provincial food network organizations like Sustain Ontario might help to raise awareness among farm employers of existing migrant farmworker health resources in rural areas and build support for additional health resources. Public health has been a major area of focus among community food-security initiatives and networks across North America (Seed, Lang, Caraher, & Ostry, 2013). As such, there is considerable scope for health-focused food networks to support existing migrant farmworker health projects, particularly given the pro-business basis and relative political neutrality of such initiatives. Because it does not require participants to adopt the identical political analysis of their shared problems in the food system, operating as a broad-based network in its ideal form can allow for relationships of trust and opportunistic coalition-building where they might not otherwise occur.

Still, reformist approaches that merely seek to ameliorate the harsher edges of the status quo present a risk of reifying systems of food production, political economy, and immigration that are

fundamentally inequitable and environmentally destructive. Food networks at large have often struggled to shift from reformist initiatives to transformative movements that can generate systemic change to ensure that benefits and harms of the food system are distributed more equitably across society and the environment (Holt-Giménez & Shattuck, 2011). Thus it is important to be attuned to strategic political moments in which affected groups, who might differ in ideology but share similar values or goals, can lend themselves to enduring and transformative social change. For instance, our finding that some farm commodity groups are advocating for access to citizenship for farmworkers may present possibilities, however tenuous, for collaboration with migrant justice groups advocating for landed status on arrival and regularization of status. Building on calls for migrant citizenship rights in the People's Food Policy and farmworker justice workshops at Food Secure Canada's previous biannual assemblies, food network organizations across Canada might continue to convene spaces for national or even transnational discussion and action with groups implicated in farm employment.

Community-University Partnerships on a Polarizing Research Issue

Community-based research partnerships offer benefits to both researchers and community partners (Levkoe et al., 2016). From the perspective of Sustain Ontario, this partnership has offered increased capacity to conduct relevant and applicable research on an often underresourced and controversial subject area. Working with university-based researchers offered the community partner an opportunity for a rich engagement with less recognized food movement actors, and for greater traction and awareness among member organizations regarding an underrepresented yet important issue for the alliance. It also provided a better understanding of the barriers and opportunities presented by possible solutions on which to focus advocacy efforts. By working with university-based researchers, Sustain Ontario was able to approach a somewhat polarizing issue through a buffer of academic curiosity. Misunderstandings or potentially damaging characterizations, in theory, could

be attributed to the researchers or academic institution rather than being directly associated with the community partner. The arms-length position of the researchers also offered the freedom to ask more critical questions of members of the alliance than the community partner might be able to.

The researchers benefited greatly from the reputation, connections, contacts, and reach of a network organization such as Sustain Ontario. In many cases, the researchers also offered a wealth of information, theoretical framing, and contacts. In this study both the graduate student and the instructor had a focus on equity and labour in agriculture and brought their experience, skills, and knowledge to the project. Community-based research partnerships appear best suited when research interests align closely with organizational mandates and the researcher is committed to collaborative communication.

As a corollary to these benefits, there is a risk of associating specific research findings with the aims of a community partner. Sustain Ontario is accountable to its membership and its mandate. As an organization, it has a specific brand or voice that it seeks to present in order to maintain credibility and often fundability. Academic research, on the other hand, is built on a principle of documentation and rigour that aims to disclose findings that are inclusive and complete. These goals can lead to a tension between what community partners are willing to publish and/or adopt and what academics offer as "data." It can also put some relationships cultivated by the community partner at risk if the critical questions and views of the researcher become conflated with those of the organization. If there is a conflict in approaches, researchers may feel controlled or censored by the organization. However, as in this study, a mutual respect for knowledge and a consistent commitment of the researcher to communicate can create a stronger, more insightful and potentially more applicable research outcome for both the community partner and the research institution.

Conclusion

As one node in the network of efforts to address social injustices and environmental crises in the food system, community-university partnerships

offer unique strengths for approaching the equity challenges of farm labour regimes. Projects involving academics who have the time, resources, and skills to conduct research, working in collaboration with organizational actors with grounded experience and established relationships, offer a powerful opportunity to affect attitudes, programs, and policies. In this study, however, a notable limitation in terms of transformative potential has been the lack of involvement of migrant farmworkers themselves. We contend that in order to meaningfully reverse the conditions that make farmworkers disproportionately vulnerable to social and economic inequalities and poor health, farmworkers must have the opportunity to participate in authoring such changes. At present, migrant farmworker deportability and job precariousness make participation tremendously difficult. Diverse coalitions committed to advancing justice and economic viability in the food system, however, can help to create political spaces for farmworkers to participate in decisions affecting their lives. As part of this ongoing project, we intend to create additional spaces for farmworker participation in identifying priorities and taking collaborative action to advance their goals. Ensuring conditions of equity and dignity for farmworkers will help to create a food system that better enables everyone to thrive. 

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Agricultural exceptionalism at the state level: Characterization of wage and hour laws for U.S. farmworkers

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Abstract

Despite difficult working conditions, farmworkers in the United States are excluded from many federal-level labor protections. The exclusion of farmworkers from standards that apply to most other workers is referred to as agricultural exceptionalism. This exclusion was born out of the successful efforts of southern agricultural interests to exempt black sharecroppers from the New Deal package of social reforms. Farmworkers continue

to belong to particularly vulnerable social and economic groups. U.S. states can establish their own labor protections that go beyond federal laws and regulations. Though agricultural exceptionalism is understood at the federal level, little is known about agricultural exceptionalism in state labor standards. This study is a comprehensive 50-state legal and regulatory mapping of minimum wage, overtime, and rest and meal period standards as they apply to farmworkers. To analyze the extent of agricultural exceptionalism in the states, we performed a search of iteratively defined search terms in WestLawNext. Two researchers

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independently read and coded identified state laws and regulations in their entireties. Results reveal that agricultural exceptionalism is far-reaching in state-level minimum wage and overtime protections. Exceptionalism is universal in overtime standards. Rest and meal period standards exist less frequently at the state level, and exceptions for agriculture in those standards are rare. The results from this analysis are useful in identifying states and policy areas with strong and weak protections for farmworkers.

Keywords

agricultural exceptionalism, structural inequality, farmworkers, food policy, labor policy, federalism, legal mapping, minimum wage, overtime, United States

Introduction

Most farmworkers in the United States do notoriously demanding work, under trying conditions, for nearly unlivable compensation. Farm work is physically uncomfortable and exposes laborers to often-severe weather conditions and hazardous materials (Getz, Brown, & Shreck, 2008; United Farmworkers & Bon Appetit Management Company Foundation, 2011; Villarejo et al., 2000). Rates of injury and infectious and chronic disease are high among farmworkers. Unstable housing, social isolation, and exploitative relationships with supervisors add to the stressful conditions they face (Getz et al., 2008; United Farmworkers & Bon Appetit Management Company Foundation, 2011; Villarejo et al., 2000). Farmworkers usually do these arduous jobs for poverty-level wages (Robinson et al., 2011; Washington State Farmworker Housing Trust, 2008).

Given the conditions of farm labor, it is no surprise that this work has long been performed by those who are disenfranchised or outside dominant U.S. society. Farmworkers are drawn from shifting groups of people whose vulnerability falls along lines of race, ethnicity, and citizenship status (Gray,

2013; Holmes, 2013). The history of U.S. farmworkers is that of populations that had few options other than agricultural work. Southern plantations relied on enslaved black people and then on mostly black sharecroppers (Farhang & Katznelson, 2005; National Center for Farmworker Health, n.d.). Immigrants from various countries have been hired illegally and under various guestworker programs¹ to meet the demand for those who were willing to do this difficult work (Martin, 2003; National Center for Farmworker Health, n.d.). Currently, farmworkers in the U.S. are largely undocumented workers from Mexico and Central America (Southern Poverty Law Center, 2013).

Over the last century, the U.S. government has created and expanded critical protections for workers. However, strides made in strengthening labor laws and regulations have consistently left farmworkers behind. We refer to the exclusion of farmworkers from standards that apply to most other workers as agricultural exceptionalism. Legal protections concerning minimum wage, overtime pay, unemployment insurance, collective organizing and bargaining, and occupational health all contain exceptions for farmworkers. The original exclusion of farmworkers from U.S. labor protections in the 1930s was driven by agricultural interests' desire to maintain the southern plantation economy that depended on the exploitation of black workers (Farhang & Katznelson, 2005; Linder, 1986; Quadagno, 1995). The National Labor Relations Act of 1935 (NLRA), Social Security Act of 1935, and Fair Labor Standards Act of 1938 (FLSA) all excluded farmworkers from the population of workers given protections via these laws (Ngai, 2004). To this day, several of these exceptions still stand.

This paper investigates agricultural exceptionalism in wage and hour protections, including minimum wage, overtime, rest breaks and meal breaks, at the state level. U.S. states are permitted to create their own wage and hour protections so long as they meet or exceed those of the federal

¹ Growers and labor contractors can hire farmworkers directly or via guestworker programs (United Farmworkers & Bon Appetit Management Company Foundation, 2011). Guestworker programs for temporary farmworkers provide

agricultural employers in the U.S. a means of temporarily hiring non-immigrant foreign workers (U.S. Department of Labor, 2013a). When guestworkers' contracts are complete, they must return to their country of origin.

government (United Farm Workers & Bon Appetit Management Company Foundation, 2011). Employers must comply with the stronger of the two laws. Farmworker exceptions at the federal level have been well researched, but little is known about whether the 50 states have enacted increased wage and hour protections for farmworkers. While a 2010 summary exists of six state wage and hour laws as they pertain to farmworkers, a more comprehensive mapping of state laws and regulations offers an important tool for those interested in understanding and improving policy protections for farmworkers (United Farm Workers & Bon Appetit Management Company Foundation, 2011).

This paper addresses the following questions: To what extent do state-level wage and hour protections go beyond federal standards to protect farmworkers? To what extent do those state protections also exempt farmworkers from coverage? In the literature review, we describe the history of agricultural exceptionalism in the U.S., the demographics of farm labor and the forces that influence those demographics, and the health challenges and poverty experienced by farmworkers. The literature review elucidates how agricultural exceptionalism is intertwined with maintenance of social inequalities that fall along lines of race, ethnicity, and citizenship. In the methods and results sections, we describe our comprehensive, 50-state legal mapping study that identifies variations in state wage and hour laws and regulations as they pertain to farmworkers. To conclude, we discuss the implications of the study results and how our findings can inform future study and action.

Literature Review

Historical Background of Agricultural Exceptionalism

Prior to the 1930s, the U.S. did not have national social programs for minimum wage or overtime. The concept of social rights began to emerge after the Depression challenged the foundations of a “rugged individualism” (Quadagno, 1995). In 1938, the U.S. government established a federal

minimum wage to stabilize the post-Depression economy and to create a standard of living that would protect the health and well-being of all U.S. workers (“The Minimum Wage: An Overview,” n.d.). The federal minimum wage was established by the Fair Labor Standards Act (FLSA), part of the New Deal package of social reforms. The FLSA also contains standards for overtime pay (J. Grossman, 1978/n.d.). Overtime standards protect workers from the adverse societal and individual effects of excessive weekly work hours, including ill health and reduced time for parenting and leisure. The FLSA’s overtime standards created, in theory, a monetary deterrent to employers overworking their employees (Golden, 1998). The FLSA did not contain standards for rest breaks or meal breaks and, to date, no federal law mandates lunch breaks or rest breaks for workers (U.S. Department of Labor [U.S. DOL], n.d.).

The sweeping social reforms of the New Deal explicitly excluded farmworkers. During the passage of the FLSA, southern Democrats held control over the most powerful seats in Congress. Those members were beholden to the interests of powerful agricultural employers in their states (Farhang & Katznelson, 2005; Linder, 1986; Quadagno, 1995). If the FLSA did not have an exception for farmworkers, those employers stood to lose not only money, but an entire social and racial plantation system that had long benefitted them and had long rested on the exploitation of black workers. To protect the status quo, agricultural employers, via southern Congressional members, made sure there were exceptions for agriculture before the FLSA could pass (Farhang & Katznelson, 2005; Linder, 1986; Quadagno, 1995). During FLSA debates, some southern members expressed concern that without an exception for farmworkers, wages between black and white laborers would be equalized (Farhang & Katznelson, 2005).

The FLSA still contains explicit exceptions for farmworkers.² Initially, all farmworkers were excluded from FLSA minimum wage protections,

both the state and federal level. States sometimes have differing definitions of what types of workers are considered

² While this analysis focuses on labor laws that affect farmworkers, the same laws apply in some states to a broader category of agricultural workers (e.g., livestock workers) at

but a 1966 amendment extended coverage to farmworkers on large farms (Linder, 1986). Farmworkers on small farms, however, are still exempted.³ Additional minimum-wage exceptions for farmworkers include workers who are family members of their employer; workers mainly involved in raising livestock; local workers harvesting crops by hand (hand harvesters) who commute from their permanent homes, are paid by the piece for crops harvested (piece-rate), and did not work in agriculture for 13 or more weeks in the preceding year; and nonlocal, piece-rate hand harvesters under 17 years old who work on the same farm as their parents (U.S. DOL, Wage and Hour Division, 2008a). Another agricultural exception in the FLSA is in the area of overtime protection. Farmworkers have no right to overtime pay under federal law.

Farmworker Demographics

During the passage of the New Deal, farmworkers in the South were mostly black and poor laborers who had been politically and economically disenfranchised and effectively stripped of citizenship rights (Gray, 2013). The New Deal provided subsidies to farmers that encouraged them to replace workers with machinery. Increased mechanization prompted the eviction of laborers, resulting in a large migration of black sharecroppers to northern cities (Quadagno, 1995). In the 1960s, public employment opportunities that were created through gains of the civil rights era incentivized further departure of black workers from agricultural labor (Gray, 2013).

On the West Coast over a century ago, immigrants replaced nearly all American-born farmworkers, who mostly abandoned agriculture's poor pay and working conditions for nonfarm jobs. Chinese immigrants who had been "imported" to build the Western railroad made up 75% of seasonal California farmworkers by the 1880s (Martin, 2003). However, the Chinese Exclusion Act of 1882 barred further Chinese immigration,

producing a need for another immigrant population to keep farm wages low (Martin, 2003). Chinese immigrants were replaced by Japanese immigrants, who were encouraged by the U.S. government to become farmworkers (London & Anderson, 1970). By 1905 Japanese immigrants made up half of California's seasonal farm labor (Olmstead & Rhode, 1997). Japanese farmworkers, however, were eventually successful at collectively organizing for higher wages. Farmers, therefore, had little objection when the U.S. engaged in an informal agreement with Japan to stop Japanese migration to the U.S. (Martin, 2003). In the 1940s, interned Japanese workers were used as farmworkers, as well as Italian and German prisoners of war (Martin, 2003). Farmworkers in the U.S. today are mainly immigrants from Mexico and Central America (Southern Poverty Law Center, 2013).

The North American Free Trade Agreement (NAFTA), implemented in 1994, required Mexico to allow subsidized food from the U.S. to enter the country while simultaneously eliminating Mexican farmers' subsidies. Mechanized, subsidized, and cheap corn from Canada and the U.S. flooded the Mexican market, and farmers there could not compete with the low prices of the imports (Fernández-Kelly & Massey, 2007). Many Mexican farmers were dispossessed of their lands. At the same time, many low-wage assembly plant jobs were relocating from Mexico to even lower-wage regions like Southeast Asia and China. The resultant dearth of employment opportunities drove a massive increase in migration from Mexico to the United States (Fernández-Kelly & Massey, 2007; Massey, Durand, & Malone, 2002; Polaski, 2004). Many farmworkers in the U.S. today are former farmers who were dispossessed of their livelihoods by these and other international forces (Fernández-Kelly & Massey, 2007).

The majority of farmworkers are not legally unauthorized to work in the U.S. One survey found that 46% of farmworkers hired by growers

agricultural workers.

³ The FLSA defines small farms as those that use less than 500 "man-days" of employee labor in any calendar quarter (i.e., three months) of the preceding year (U.S. DOL, 2008a). A "man-day" is any 24-hour day in which a farmworker works at

least one hour, meaning 500 man-days translate to roughly seven full-time employees working five days a week, so a "small farm" has roughly seven or fewer full-time employees (United Farm Workers & Bon Appetit Management Company Foundation, 2011).

directly and 76% of those hired by farm labor contractors are undocumented (United Farmworkers & Bon Appetit Management Company Foundation, 2011). Immigration status affects farmworkers' abilities to advocate for improvements in wages and working conditions. Employers have used immigration status to thwart farmworkers' attempts to unionize and advocate; organizing drives have been broken when employers threaten to call the Immigration and Naturalization Service (Haus, 2002). Among undocumented workers, the most recent immigrants to the U.S. are the least likely to organize (Moody, 2007).

In her 2013 book *Labor and the Locavore*, Margaret Gray argues that agricultural employers, with assistance from government agencies, have influenced the ethnic succession of farmworkers in order to ensure a workforce made up of the most vulnerable available populations. Gray (2013) shows that:

Agricultural employers have long deployed ethnic stereotypes to hasten demographic transitions in the work force. Incoming or preferred workers are praised for their strong work ethic, while outgoing workers are castigated as lazy and overly demanding. Race-based characterizations are vehicles for employers' rationalizations about who will be good workers. This kind of racial profiling, which is repeated whenever a new group is introduced, also intersects with employers' ceaseless search for quiescent workers to fill low-paying jobs. (p. 123)

In the late nineteenth century, farm owners called the Chinese ideal workers because they were perceived as not having the same aspirations as white workers and as being better suited to the harsh conditions than European laborers or white American laborers (Fuller, 1939). Farmers in the 1920s argued in official testimony to Congress that Mexican laborers were ideal farmworkers because they lacked the intelligence and skill to try to take on more supervisory, less backbreaking work (Tichenor, 2002). Farm owners and management continue to profile workers according to race and

ethnicity. Gray (2013) explains that in the twentieth century black workers, who were gaining rights and opportunities, began to be seen as too demanding and "uppity." In her recent ethnographic work in New York state, Gray found that black workers were characterized by their employers as shiftless and abusive of drugs and alcohol. Puerto Ricans were thought of as lazy. American-born workers were seen as unreliable or unstable. Conversely, Mexicans and new undocumented workers were praised as loyal and having a strong work ethic (Gray, 2013). Marta Maria Maldonado's ethnographic work supports Gray's arguments. Maldonado shows that farm owners allude to the natural tendencies of "Hispanics" to do well in menial agricultural jobs and lack of desire to be bosses (Maldonado, 2009).

When groups of workers gain advantages through changes in citizenship status or other factors, even the most idealized groups can become undesirable (Gray, 2013). The perceived willingness of some laborers to work long hours without objection is unlikely a strong work ethic that falls along lines of race, ethnicity, or citizenship. More likely it represents the desperation of various groups to earn an income and support their families and a fear of retribution for making demands for improved wages or working conditions (Gray, 2013).

It is important to note that present-day farmworkers are not one undifferentiated group of "Latino" or "Hispanic" workers. Farmworkers come from diverse countries and cultural groups. There are categories of farmworkers delineated based on ethnicity and citizenship that determine how employers characterize them and what kinds of work they are assigned to perform. Generally, the more "indigenous" and the more Mexican a farmworker is perceived to be, the further down the ladder he or she is from a white U.S. citizen, and the more physically difficult and degrading his or her work tends to be (Holmes, 2013; Maldonado, 2009). Seth Holmes (2013) has documented this ethnic succession on U.S. farms. The most vulnerable populations perform the most undesirable jobs. As groups advance economically or socially, a more oppressed or vulnerable group replaces them.

Government bodies at various levels facilitate employers' demographic preferences. Through exceptions to restrictive immigration policies and the creation of various guestworker programs, farmworker employers have been guaranteed an ample supply of cheap and disenfranchised labor. The Immigration Act of 1917 contained an exception to restrictive policies for those who were immigrating to do farm work, creating the first *bracero* (Mexican farmworker) program. In the mid-twentieth century, a more formalized *bracero* contract labor program was initiated through a labor agreement between Mexico and the U.S. In order to facilitate this policy Congress had to remove a ban on contract labor that had existed since 1885 to stem the tide of immigrant workers (Ngai, 2014). The power of Congressional members from agricultural regions trumped evidence from the government that there was no farmworker shortage and other members' concerns about wages, labor standards, and allowing so many foreigners into the country (Ngai, 2014). After the notoriously abusive *bracero* program was dismantled, farmworkers could still be brought in on H-2A visas (temporary visas to fill seasonal jobs). The H-2A visa program was initially advocated for by the Florida sugar cane industry in order to fulfill its demand for Caribbean workers to cut sugarcane (Southern Poverty Law Center, 2013). Today the H-2A guestworker program is still the program under which farmworkers are brought to the U.S. for legal temporary employment.

Gray (2013) documents how the New York State Department of Labor (NYDOL) Rural Employment Program, which connects farmers with prospective workers, processes job opportunities in a way that bends to the demographic preferences of employers. Specifically, the hiring of domestic, mostly black, workers is minimized by the NYDOL through several hiring processes. Conversely, the department facilitates the hiring of Latino, foreign-born workers (Gray, 2013). In this case, the state aids growers in acquiring a labor force that is perceived to be less likely to demand higher wages or better working conditions.

Farmworker Health and Poverty

Employment conditions have a major effect on

health and health inequalities via social, economic, and physical pathways; work can be considered a direct determinant of health disparities (Benach, Muntaner, & Santana, 2007; Lipscomb, Loomis, McDonald, Argue, & Wing, 2006). Farmworkers suffer myriad health consequences of their work. A 2013 report indicated that agriculture is the most hazardous industry for U.S. employees (National Safety Council, 2013). In 2011 agriculture was one of only two private industry sectors to see an increase in occupational injuries over the previous year; this increase was driven specifically by higher rates of injuries in crop production and animal production (U.S. DOL, Bureau of Labor Statistics, 2012).

Much farm labor entails spending many hours each day in uncomfortable physical positions, including performing repetitive motions that cause ergonomic injuries (Getz et al., 2008; United Farmworkers & Bon Appetit Management Company Foundation, 2011; Villarejo et al., 2000). Farmworkers often do their work while exposed to extreme weather conditions that can cause heat stress, which sometimes leads to death. They often lack access to clean water or toilets. Many are also in contact with pesticides, herbicides, sulfur, and dust, and experience elevated risks of respiratory illnesses, skin conditions, cancer, eye and vision problems, and obesity-related chronic diseases. Rates of infectious diseases, including tuberculosis and parasites, are high among farmworkers (Getz et al., 2008; United Farmworkers & Bon Appetit Management Company Foundation, 2011; Villarejo et al., 2000). In addition, farmworkers experience job and housing insecurity, isolated social conditions, and relationships with supervisors that can be exploitative or abusive (Getz et al., 2008). Despite their responsibility for the nation's food supply, farmworkers suffer from food insecurity at disproportionately high rates as compared to the rest of the U.S. (Minkoff-Zern, 2014a).

Many farmworkers work long enough hours that, in other industries, would grant them legal access to overtime pay. According to the most recent data available from the National Agricultural Workers Survey, 50% of farmworkers work over 40 hours per week. That statistic includes both workers hired directly by farm owners and those

hired by intermediary labor contractors. A quarter of farmworkers work 50 hours per week or more (U.S. DOL, 2004).

Low income and unpaid income are major issues for U.S. farmworkers. Data from the National Agricultural Workers Survey (NAWS) shows that between 2005 and 2009, about half of farmworkers who had worked in the U.S. for an entire year or more made under US\$20,000 per year from all sources of income, including nonfarm employment (United Farmworkers & Bon Appetit Management Company Foundation, 2011). A study in Washington state showed that in 2006, fewer than 7% of farmworkers in the state made more than US\$20,000 per year. The study reported that the average annual income of farmworkers in Washington state in 2006 was US\$12,327 (Washington State Farmworker Housing Trust, 2008). Minimum wage violations are common among farm employers. A 2011 study in North Carolina showed that 45.3% of farmworkers without H-2A visas had experienced wage violations (Robinson et al., 2011). Income to a large degree determines the level of health care, shelter, nutrition, and transportation to which one has access. The ability to meet these basic needs has myriad effects on mental and physical health.

As the previous passages have established, farm work is often performed by the most marginalized groups of available workers. Social and structural inequalities suffered by these groups make them willing to do farm jobs. The health and economic consequences of this work are thereby a result of social inequalities, which fall along lines of race, ethnicity, and citizenship. Holmes (2013) calls the physically and emotionally injurious effects of social inequalities on farmworkers “structural violence.” In his 2013 book, *Fresh Fruit, Broken Bodies*, Holmes elucidates structural violence by exploring the physical suffering of several farmworkers, including Abelino:

The social and political genesis of Abelino’s knee pain could not have been clearer. His pain was caused unequivocally by the fact that he, as an undocumented Triqui man, had been excluded by both international market inequalities and local discriminatory practices

from all but one narrow and particularly traumatic labor position. This occupation required him to bend over seven days a week, turning back and forth, in all kinds of weather, picking strawberries as fast as he possibly could. (Holmes, 2013, p. 94)

Agricultural exceptionalism in wage and hour protections, collective bargaining rights, and occupational health protections and enforcement creates lower standards for farm work than for most other forms of work in the U.S. In providing fewer protections for those who are already socially unequal, it contributes to structural violence against farmworkers and further entrenches social inequalities. In order to begin addressing this problem, it is important to fill gaps in our understanding of how agricultural exceptionalism operates in the U.S.

Methods

In this study, we aim to improve understanding of how farmworkers are excluded from wage and hour protections at the state level. We conducted a comprehensive search to identify state labor laws and regulations related to the following topics: (1) minimum wage; (2) overtime; (3) required rest periods; and (4) required meal periods. For all 50 states, and for each of these topics, we identified laws and regulations for the general population of workers, as well as for any exceptions or special laws for farmworkers. The Robert Wood Johnson Foundation’s Public Health Law Research Program has developed best practice principles for the systematic identification, collection, and analysis of laws and regulations. These principles guided our approach to data collection and analysis (Anderson, Tremper, Thomas, & Wagenaar, 2012).

Data Collection

To begin data collection, we defined a set of search terms based on the categories of law of interest. Initial search terms included “minimum wage,” “maximum hours,” “overtime pay,” “rest period,” and “meal period.” We refined these search terms during early data collection through an iterative process, based on the language found in relevant laws and regulations. The final set of search terms included “minimum wage,” “maximum hours,”

“overtime,” “rest period,” “rest&period,” “meal period” and “meal&period.”

We conducted searches using the above terms in WestLawNext between March and August 2014. This legal database allows researchers to search statutes and regulations for all 50 states. We ran searches within the statutory and administrative codes for each state. As a quality control measure we compared the identified state laws and regulations to publicly available materials created by the U.S. Department of Labor (U.S. DOL or DOL) (U.S. DOL, Wage and Hour Division, n.d.-b, n.d.-c, n.d.-d). The DOL materials contain information on general labor laws and regulations as they pertain to the majority of workers. These materials do not contain information specific to farmworkers. For the very few discrepancies that were identified between DOL materials and the laws and regulations searched, we consulted the text of the relevant law or regulation. These quality control measures were particularly important in confirming negatives (e.g., some states, such as South Carolina, did not have their own wage or hour laws) (U.S. DOL, Wage and Hour Division, n.d.-b). When states do not have their own wage or hour laws, they default to the federal standard (U.S. DOL, Wage and Hour Division, n.d.-b). When no state-level law or regulation could be located, we verified its absence through secondary sources. As an additional quality control measure, we used publicly available information from the National Conference of State Legislatures to confirm whether new state labor laws had been enacted, but not yet documented in WestLawNext (National Conference of State Legislatures, 2014). For the three states that had enacted laws not yet in WestLawNext, we consulted the state legislature websites to obtain the full text of the newly enacted laws.

Because the search terms were designed to be broad, with the goal of capturing all relevant laws and regulations, the search at times retrieved hundreds or thousands of laws and regulations. We developed a set of exclusions to ensure that the final set of laws and regulations included only those relevant to the research question. For example, we applied exclusions to laws or regulations related to unemployment insurance, workers' compensation, and child labor. Though these

exclusions apply to labor protections with degrees of agricultural exceptionalism, this analysis focuses on laws and regulations that affect the payment and working hours of adult, currently employed farmworkers. See Appendix A for a full list of exclusions.

For the relevant laws and regulations retrieved via WestLawNext, we captured the full text. A second researcher used the search protocol to independently capture laws and regulations for a randomly selected 10% subsample (i.e., five states). The findings of the two researchers were in agreement, save for one instance, which was resolved through discussion.

Data Analysis

We organized the laws and regulations we had identified in a spreadsheet, with a separate sheet for each of the following topics: minimum wage, overtime, rest periods, and meal periods. For each topic, the spreadsheet organized the data into four variables: continuous (e.g., dollar amount of state minimum wage), categorical (e.g. explicit, non-explicit, or no exception for farmworkers), dichotomous (e.g., whether there is a state law or regulation), and qualitative (e.g., description of exceptions for farmworkers) variables. Within each topic, we organized results by state.

We read each law and regulation in its entirety. When coding for whether a law or regulation contained an exception for farmworkers, we used the following four categories:

- “N/A”: no relevant law or regulation in general for the state.
- “N”: a relevant law or regulation, but no exception was included for farmworkers.
- “Y”: a relevant law or regulation that contained an explicit exception for farmworkers. Explicit exceptions could be made clear via a statement within the text of a law (e.g., clarifying that the law did not apply to employers in agriculture). Frequently, exceptions were found in a law's definition of “employee.” States were coded as “Y” even when there are protections for farmworkers, if the protections were weaker than those for workers in general.

- “NE” (non-explicit): a law or regulation that indirectly exempted all farmworkers or much of the agriculture industry. For instance, if a law or regulation applied only to specific sectors of workers (e.g., miners) that were not in agriculture, it was coded as “NE” because it excluded agriculture (along with other industries) by default. States were coded as “NE” if they referred to federal law.

A second researcher independently coded a randomly selected 10% subsample of laws and regulations (i.e., for five randomly selected states). The two researchers’ coding matched for all but one variable for one state. That instance was clarified through discussion.⁴ Throughout both data collection and coding, we maintained a detailed research protocol.

Results

States vary widely in terms of their legislation and regulations for minimum wage, overtime, rest periods, and meal periods. The following 11 states

have laws or regulations governing all four categories: California, Colorado, Illinois, Kentucky, Maine, Minnesota, Nevada, New Hampshire, Oregon, Vermont, and Washington. In contrast, the following four states have no laws or regulations for any of the four categories: Alabama, Louisiana, Mississippi, and South Carolina. Table 1 displays the states with and without their own labor standards in the categories of interest for this analysis.

Of the four categories examined, states most frequently have laws or regulations pertaining to minimum wage ($n=45$ states) and overtime ($n=32$ states). Minimum wage and overtime are also the types of laws that most frequently contain explicit exceptions for farmworkers. Less than half of all U.S. states have laws or regulations pertaining to required meal periods for laborers, and less than one-quarter of states have standards pertaining to required rest periods. Table 2 shows the numbers and percentages of states that have their own standards with exceptions for farmworkers.

Table 1. States With and Without Their Own Labor Standards, by Category of Standards

Labor standard category	States with own standards	States without own standards
Minimum wage	All states other than those listed at right	Alabama, Louisiana, Mississippi, South Carolina, Tennessee
Overtime	All states other than those listed at right	Alabama, Arizona, Delaware, Florida, Georgia, Idaho, Iowa, Louisiana, Mississippi, Nebraska, Oklahoma, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Wyoming
Rest periods	California, Colorado, Kentucky, Maine, Minnesota, Nevada, Oregon, Pennsylvania, ^a Tennessee, Vermont, Washington	All states other than those listed at left
Meal periods	California, Colorado, Connecticut, Delaware, Illinois, Kentucky, Maine, Massachusetts, Minnesota, Nebraska, Nevada, New Hampshire, New York, North Dakota, Oregon, Pennsylvania, ^a Rhode Island, Tennessee, Vermont, Washington, West Virginia	All states other than those listed at left

^a Pennsylvania: The general population of workers in Pennsylvania do not have rest and meal period protections. These standards have an exception for female farmworkers, who are provided rest and meal period protections. Male farmworkers are not provided these protections.

⁴ Specifically, there was disagreement on whether or not Pennsylvania should be coded as having its own rest and meal period standards for the general population of workers, as the state only provides that protection to female workers. The

coders resolved to consider the state as having those standards, but explained that particular outcome in the results section below via footnotes in the tables.

preceding year, or individuals who are employed as hand-harvest laborers and paid on a piece-rate basis) (Ark. Admin. Code § 010.14.1-106, 2014). For example, in Maine, employees exempt from the minimum wage law include “any individual employed in agriculture as defined in Maine Employment Security Law...except when that individual performs services for or on a farm with over 300,000 laying birds” (Maine Rev. Stat. Ann. § 26.663(3)(A), 2014).

Exceptions for farmworkers are also found frequently in the minimum wage laws’ or regulations’ definitions of terms. In many states’ minimum wage laws, farmworkers are explicitly left out of the definition of “employee.” States that exclude farmworkers from the definition of, and therefore the minimum wage rights given to, employees include Delaware, Hawaii, Indiana, Kansas,

Kentucky, Massachusetts, Minnesota, Nebraska, New Mexico, Ohio, Oklahoma, Vermont, Virginia, Washington, West Virginia, and Wyoming.

Three states have non-explicit exceptions for farmworkers in their minimum wage laws. Florida uses the FLSA’s criteria for who is covered by minimum wage standards (Flor. Stat. Ann. § 448.110(3), 2014). Arizona similarly does not cover employees exempted by the FLSA if they work at a small business grossing less than US\$500,000 in annual revenue (Ariz. Rev. Stat. § 23.362(B), 2014; Ariz. Rev. Stat. § 23.362(C), 2014). Colorado’s Minimum Wage Order only applies to certain industry sectors (not including agriculture) and those covered by the FLSA (Colo. Code Regs. § 7.1103-1:1, 2014).

Some states have minimum wage standards without exceptions for farmworkers that are equal

Table 3. States with Their Own Labor Standards, With and Without Exceptions for Farmworkers, by Category of Standards

Labor standard category	With exceptions (explicit)	With exceptions (non-explicit)	Without exceptions
Minimum wage	Alaska, Arkansas, Delaware, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, Oklahoma, Oregon, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wyoming	Arizona, Colorado, Florida, Ohio	California, Connecticut, Maryland, Montana, New Jersey, New York, North Dakota, Pennsylvania, Rhode Island, South Dakota, Wisconsin
Overtime	Alaska, Arkansas, California, ^a Connecticut, Hawaii, Illinois, Indiana, Kansas, Kentucky, Maine, Maryland, ^a Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, West Virginia, Wisconsin	New York, Colorado	None
Rest periods	Maine, Minnesota	Colorado	California, Kentucky, Nevada, Oregon, Pennsylvania, ^b Tennessee, Vermont, Washington
Meal periods	Maine, Minnesota	Colorado, Nebraska	California, Connecticut, Delaware, Illinois, Kentucky, Massachusetts, Nevada, New Hampshire, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, Tennessee, Vermont, Washington, West Virginia ^c

^a California and Maryland both have overtime protections for farmworkers, but they are lesser protections than those given to most workers.

^b In Pennsylvania, the rest and meal period protections for farmworkers stem from specific laws for that group, in addition to protections specifically for female workers, whereas the general population of male workers in Pennsylvania does not have rest or meal period protections.

^c Wisconsin gives migrant workers their own specific standards for meal periods, an exception over the general population of workers in the state. Wisconsin is not listed in this row because it does not provide a meal period standard for workers generally.

to or greater than the federal standards. Those states are listed in Table 3 and shown in Figure 1, which shows all states that have their own labor standards relevant to this analysis and whether they have explicit, non-explicit, or no exceptions for farmworkers.

Overtime

Unless exempt, employees in the U.S. are entitled to overtime pay if they work more than 40 hours in any one workweek under the FLSA. The FLSA defines a workweek as seven consecutive 24-hour periods. For hours worked beyond 40 hours in one workweek, employees are entitled to overtime pay at a rate no less than time and one-half of their normal pay rate (U.S. DOL, Wage and Hour Division, n.d.-a). The FLSA exempts all farmworkers from overtime pay (U.S. DOL, 2008a).

As Table 3 and Figure 2 indicate, 32 states have their own standards for overtime pay. Every state with its own standard for overtime pay has an exception for farmworkers. Nearly all of them ($n=30$) contain explicit exceptions for farmworkers. Colorado and New York have non-explicit exceptions; Colorado grants the right to overtime pay to specific industry sectors, of which agriculture is not included, while New York refers to federal law, which excludes farmworkers from overtime protections. California and Maryland both have overtime protections for farmworkers, but they are lesser protections than those given to most workers. In California, most workers are entitled to overtime if they work more than eight hours in one day or over 40 hours in one workweek (Calif. Code

Ann. §510(a), 2014). Farmworkers in California, on the other hand, are entitled to overtime if they work over 10 hours in one day or more than six days in a workweek (Calif. Code Regs. § 8.11140(3)(A), 2014). Farmworkers who work seven consecutive days are entitled to overtime for all hours worked on the seventh day (Calif. Code Regs. § 8.11140(3)(A), 2014). Most Maryland workers are entitled to overtime pay after 40 hours of work in a week, whereas Maryland farmworkers are entitled after 60 hours of work in a week (Maryland Code Ann. § 3-420(c), 2014; Maryland Code. Ann. § 3-415(a), 2014.).

As with state standards for minimum wage, some states create an explicit exception for overtime pay for farmworkers by leaving the whole agriculture industry out of the definition of employee. States that exclude farmworkers from the definition of employee as it pertains to overtime pay are Indiana, Kansas, Kentucky, Minnesota, Maine, New Mexico, Vermont, West Virginia and Washington. The majority of these exceptions are written clearly into the laws. For example, Illinois' overtime standards are not applicable to "any employer of agricultural labor, with respect to

Figure 2. Overtime Agricultural Exceptions by State, U.S.

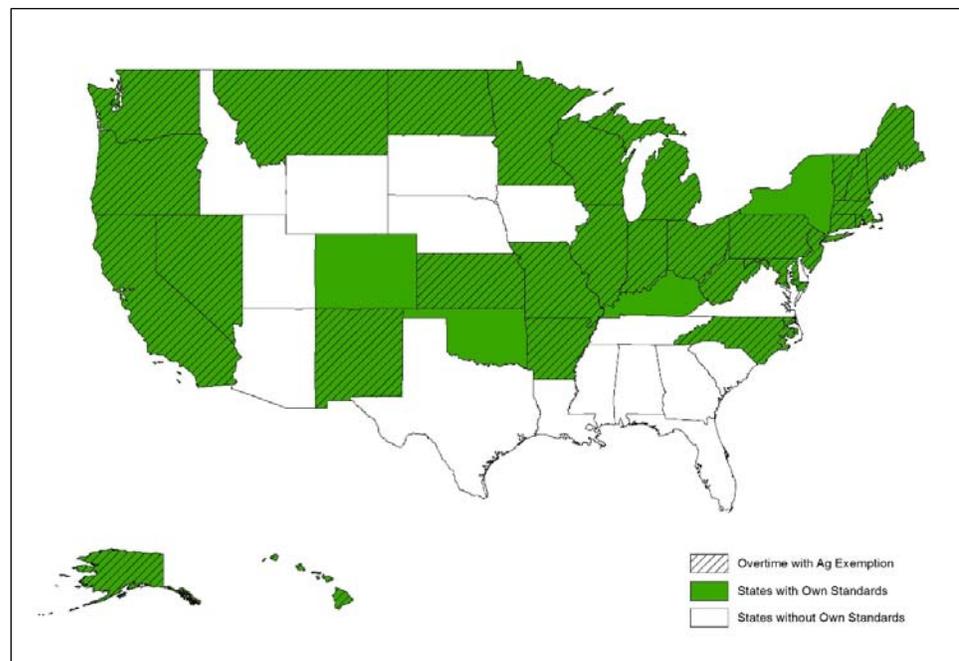


Image created by Johns Hopkins Center for a Livable Future.

agricultural employment” (Ill. Comp. Stat. Ann. § 820.105/4a.(2)(C), 2014).

Rest Periods

Federal law does not require that employers give employees rest or meal periods. However, when employers do offer break periods between five and 20 minutes, federal law requires those breaks to be compensable time (U.S. DOL, n.d.).

A minority of states ($n=11$) have official standards for rest periods. In six states (California, Colorado, Kentucky, Nevada, Oregon and Washington), for every four consecutive hours of work, laborers must be given 10 minutes of paid rest time. Maine and Minnesota have explicit exceptions for farmworkers in their rest period standards (Maine Rev. Stat. Ann. § 26.663(3)(A), 2014; Maine Rev. Stat. Ann. § 26.601, 2014; Minn. Stat. Ann. § 177.23(7)(1-3), 2014; Minn. Stat. Ann. § 177.253(1), 2014). (See Figure 3 and Table 3.)

Pennsylvania’s standards for rest periods are anomalous, as there is a standard only for female laborers, in that they cannot legally work more than five consecutive hours without a rest period (Penn. Stat. § 43.107, 2014). In general, male laborers are

not entitled to a rest period in Pennsylvania. However, Pennsylvania has the same standard for seasonal farmworkers, regardless of gender, as it does for women (Penn. Stat. § 43.1301.207(c), 2014). In the case of Pennsylvania’s rest period standards, female farmworkers appear to have a favorable exception compared to male laborers in general.

Meal Periods

Meal periods of 30 minutes or more are not required to be compensable under federal law (U.S. DOL, n.d.). Twenty-one states have standards for meal periods (see Figure 3). In most cases, employees are entitled to a 30-minute unpaid meal period for some number of consecutive hours worked. Maine and Minnesota have explicit exceptions for farmworkers in their meal period standards (Maine Rev. Stat. Ann. § 26.663 (3)(A), 2014; Maine Rev. Stat. Ann. § 26.601, 2014; Minn. Stat. Ann. § 177.23 (7)(1-3), 2014; Minn. Stat. Ann. § 177.254(1), 2014).

For meal period standards, Pennsylvania and Wisconsin stand out. Pennsylvania’s meal period standards apply to the same workers as do the standards for rest periods, described above. While

Wisconsin has no strict standards for meal periods for the general population of workers (meal periods are merely recommended), migrant workers are entitled to an unpaid period of at least 30 minutes for more than six hours of consecutive work (Wisc. Ann. Stat. § 103.935(2), 2014).

Several states with meal period standards have exceptions for employers with a small number of employees. States with such exceptions

Figure 3. Rest Period Agricultural Exceptions by State, U.S.

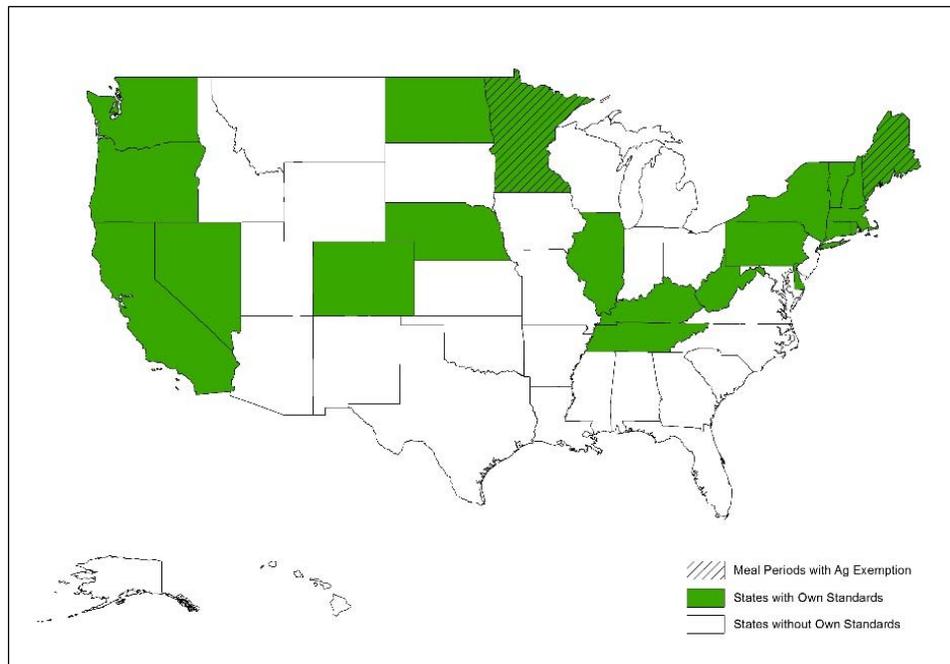


Image created by Johns Hopkins Center for a Livable Future.

include Connecticut, Delaware, Nevada, and Rhode Island (Conn. Gen. Stats. Ann. § 31-51ii(c)(3), 2014; Del. Code Ann. § 19.707(a)(3), 2014; Nev. Rev. Stats. Ann. § 608.019 (3)(a), 2014; Rhode Island Gen. Laws § 28-3-14(b), 2014). While these exceptions may include many farms, this type of exception for small businesses was not counted as an agricultural exception.

Figure 4. Meal Period Agricultural Exceptions by State, U.S.

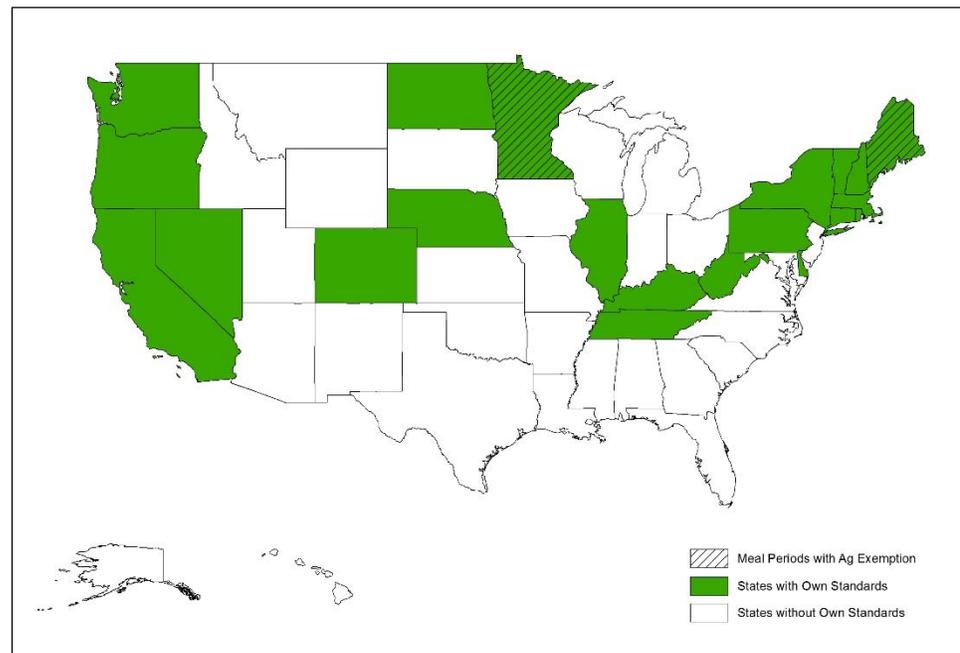


Image created by Johns Hopkins Center for a Livable Future.

Discussion

Laws and regulations for working conditions and labor standards—including minimum wage, overtime pay, and rest and meal periods—exist to minimize occupational hazards and to establish compensation that is sufficient to meet workers' basic economic needs (Bhatia, Gaydos, Yu, & Weintraub, 2013). Though several of these basic labor protections have been societally recognized as important through federal codification, many exclude farmworkers from coverage. The original exceptions for farmworkers in U.S. labor law were grounded in agricultural employers' attachment to a system that economically disadvantaged non-white farmworkers (Linder, 1986). Today, most farm owners are still white, while most farmworkers are still people of color. The USDA reports that according to the 2012 Census of Agriculture, although the diversity of farm operators is growing, the primary operators of 96% of farms in the U.S. are white (USDA, 2014). Over the past several centuries, the racial composition of farmworkers has gone from being mostly black to mostly foreign-born Latino workers (Linder, 1986; United Farm Workers & Bon Appetit Management Company Foundation, 2011).

Our analysis shows that agricultural

exceptionalism at the state level is far-reaching. Many states have established labor protections that are equal to or more rigorous than the minimum standards set by the federal government. In the areas of minimum wage and overtime, most of these state laws and regulations have exceptions for farmworkers that look much like the federal exceptions. Over two-thirds of the 45 states with their own minimum wage standards exclude some farmworkers from protection. Every state with its own overtime standard has an exception for farmworkers. The adverse health effects of long work hours and low pay are a concern. Given the long hours worked by many farmworkers, overtime protection is an important area for future legislative and regulatory efforts and for public health advocacy.

State standards in the areas of meal and rest breaks were less common than for minimum wage and overtime, as were exceptions in those areas. Less than half of states have meal period requirements, and less than one-quarter of the states have rest period requirements. A minority of state meal and rest period requirements have exceptions for farmworkers.

Several factors determine whether states enact

policies that go beyond standards set by the federal government. States' policy priorities are determined by myriad internal characteristics, including citizen demands, interest group demands, the political ideology of elected and appointed officials, and a state's resources and obstacles that can support or hinder the policy (Whitaker, Herian, Larimer, & Lang, 2012). Legislators in states with dominant economic interests such as agriculture or organized labor tend to protect those interests (Hamm & Moncrief, 2012).

The history of agricultural exceptionalism reveals the strong power of grower interests to influence legislation affecting farmworkers (Farhang & Katznelson, 2005; Linder, 1986; Quadagno, 1995). Interest groups continue to be influential in the areas of agriculture and labor policy in the twenty-first century (M. Grossmann, 2012): U.S. agribusiness has contributed financial resources to politicians and political parties at the federal level. For instance, in the 2012 election cycle, agribusiness contributed over US\$92 million, mostly to Republicans (Center for Responsive Politics, 2013a). Crop producers contributed nearly US\$29 million of that total (Center for Responsive Politics, 2013b). Growers, including organic growers, have successfully opposed labor legislation at the state level, including minimum wage standards and workplace health and safety standards (Getz et al., 2008).

Of the laws and regulations of interest in this analysis, those that place the greatest economic demand on employers tended to have the highest rate of exceptions for farmworkers. The ubiquitous exceptions for farmworkers in overtime may be due to the increased economic demand that overtime requirements place on employers. Minimum wage laws set a standard that overtime protections build on, by requiring more pay for more work. Agricultural employers have a strong incentive to fight state policies that would interfere with federal overtime exemptions for their employees. In the same vein, the relative lack of exceptions in meal period requirements may be attributed to the lack of economic burden on employers and farms created by these protections. Meal periods are generally unpaid nonwork time and, therefore, agricultural interest groups have relatively little

motivation to lobby against such protections.

Rest periods are nonwork time that an employer must generally pay for, which makes the relatively low rate of exceptions for farmworkers in this area stand out. Only two of the 11 states with rest period standards have explicit exceptions for farmworkers. This result may be because many of the farmworkers in states with rest period standards are paid on a piece-rate basis, not hourly. Under piece-rate payment, a worker is rewarded for the volume of crops picked, rather than the number of hours worked. This system incentivizes workers to skip rest periods (Cornish, 2015; Gallant, 2015). Agricultural employers thus have had little incentive to fight for exceptions to rest period standards. However, in July 2015 Washington state's supreme court ruled that piece-rate farmworkers must be paid separately for their rest periods at a rate not lower than what they are making when they are working (Rowe, 2015). This ruling may open the door to similar rulings in other agriculture-oriented states with rest period standards and no exceptions for farmworkers (Cornish, 2015).

California and New York have had vibrant farmworker organizing movements in recent decades that have won legislative victories in farmworker protections (Gray, 2013; Martin, 2003). The strength of farmworker interest groups may explain why these states stand out as having fewer exceptions for farmworkers than most other states. For the four labor protections included in this analysis, California, New York, Pennsylvania, and Wisconsin have relatively strong protections for farmworkers. California has its own protections for minimum wage, overtime, and rest and meal periods, with exceptions for farmworkers only for overtime. New York has standards for minimum wage, overtime, and meal periods, with no exceptions for farmworkers for minimum wage or meal period standards. California, New York, Pennsylvania, and Wisconsin could serve as case studies to understand why and how these states have become good examples for protecting laborers in agriculture.

The states with no standards for any of the examined labor protections share some similarities that may merit further exploration. For instance, as

of early 2015 they are all southern states with Republican governors, House, and Senate majorities (The Henry J. Kaiser Family Foundation, 2015). These characteristics and perhaps other similarities in these states may contribute to their lack of labor protections. The strength of the Republican party in these states may, for instance, contribute to legislatures' relative lack of support for labor issues. Democrats generally have a more favorable view of the interests of organized labor than do Republicans (Newport & Saad, 2011). The South's particular history of labor and politics, explored earlier in this paper, may also contribute to these similarities.

States that have several of their own labor standards and also several exceptions may present opportunities for advocates, in that labor protections have already been codified; removing a farmworker exception may prove easier than passing new labor laws entirely. On the other hand, these states may face powerful influences from agricultural employers or a lack of organized farmworker interest groups, which may explain why they have exceptions for farmworkers for every protection. The same two states with exceptions for farmworkers in meal period standards, Maine and Minnesota, have exceptions in rest period standards. Maine and Minnesota may therefore serve as interesting case studies as states that have gone farther than most other states in codifying agricultural exceptionalism in their labor protections and why that may be.

Lack of citizenship and documentation make it difficult for farmworkers today to become priorities for policymakers who could remedy agricultural exceptionalism. Agricultural employers outweigh farmworkers in economic resources and in their rights to vote or organize (Delgado, 1993; Haus, 2002; Kammer, 2009; Moody, 2007). Under federal law, a farmworker can be fired for joining a labor union (National Labor Relations Board, n.d.).

States can go above the federal NLRA, which sets a policy floor, but only California does so (Agricultural Labor Relations Board, 2013; United Farmworkers & Bon Appetit Management Company Foundation, 2011). Data from the most recent 10 years of the National Agricultural Workers Survey showed that only one percent of farmworkers have worked under a union contract in the previous two years (United Farmworkers & Bon Appetit Management Company Foundation, 2011). Even farmworkers with collective bargaining rights may be fearful of organizing because of their lack of citizenship status (Haus, 2002).⁵

The growing alternative food movement has the potential to serve as a strong ally to labor in improving farmworker conditions (Sbicca, 2015). However, the movement has historically been more focused on environmental sustainability and increasing consumption of good food than on labor issues and economic justice (Myers & Sbicca, 2015). Despite evidence that limited income is a critical barrier to consumption of certain foods, many alternative food movement projects that aim to improve diets do so via education or by increasing availability of good food (Minkoff-Zern, 2014b; Myers & Sbicca, 2015). Trends in the alternative food movement indicate that the movement tends toward white and upper-middle-class biases, which often exclude the voices and visions of food workers (Sbicca, 2015). In order to better the lives of communities facing poverty and diet-related diseases and to improve their purchasing power, distribution of wealth must be addressed (Myers & Sbicca, 2015). The unlivable wages earned by farmworkers and other food workers should be key targets for movements concerned with food justice and food sovereignty (Minkoff-Zern, 2014a). Some groups working on improved conditions for food workers understand that fighting racism is critical to ending economic inequality (Sbicca, 2015). Increased cross-movement alliances between labor

⁵ Despite challenges to organizing for improved labor rights and conditions, there have been notable successes among farmworkers. The United Farm Workers and other farmworker unions have gained successes in collective bargaining legislation and improved grower contracts (United Farm Workers, n.d.). In more recent years, the Coalition of

Immokalee Workers (CIW) has drawn attention to the poor conditions of farmworkers in the Southeastern U.S. via collective organizing, strikes and boycotts. CIW's efforts have accomplished several wins in raising wages and improving conditions for the farmworkers involved (Coalition of Immokalee Workers, 2012).

and the alternative food movement are now growing and have the potential to improve the lives of workers in agriculture and other areas of the food system. Addressing the state-level agricultural exceptionalism that is revealed by this study should be one such effort toward strengthening structural protections for farmworkers.

Limitations

The search process for this study was comprehensively implemented in accordance with best practices for legal mapping studies. However, it is possible that some relevant laws and regulations were unintentionally excluded in the search process. This analysis does not consider the extent to which the laws and regulations identified are enforced. For those farms that are legally required to provide the labor protections examined in this analysis, how many are in compliance is not known. Record-keeping of regulatory enforcement is poor at the federal and state levels, and monitoring efforts lack transparency and traceability (United Farm Workers & Bon Appetit Management Company Foundation, 2011).

Finally, based on the results of this analysis, it is difficult to quantify the full reach of agricultural exceptionalism in U.S. labor policies. Although the U.S. DOL defines small farms in terms of “man-days,” public data sources do not measure labor or farm size in this way (United Farm Workers & Bon Appetit Management Company Foundation, 2011). The incongruence of how farm size and labor are measured makes it challenging to understand the true impact of exceptions for agricultural labor. The exact number of farms and farmworkers that are not under state and federal labor protections remains unclear. However, based on this analysis, it is still evident that the number of farmworkers affected by exceptionalism is significant.

Future Research

Due to the general paucity of data related to farmworkers in the U.S., there is a need for future research in several areas. More systematic legal research is needed regarding other types of farmworker protections. Understanding the state-level legal and regulatory landscape for farmworkers in the U.S. is an important first step in

identifying protective laws and areas to target future efforts. Case studies and legislative histories of states with both strong and weak protections can help identify best political strategies and important pitfalls in making legal progress. Future studies that investigate these protections in terms of the states’ social conditions at the time of enactment or promulgation would be particularly helpful in revealing variables that have led to agricultural exceptionalism at the state level.

Conclusion

Labor protections have been enacted at the federal and state levels in the U.S. to ensure a standard of living and working for laborers. However, since the enactment of several of those protections, farmworkers have been given categorically fewer rights than workers in other industries. Farmworkers have been excluded from federal protections considered basic and crucial in the U.S. for nearly a century. This analysis reveals that many states also fail to give farmworkers the protections granted to most other laborers, especially with regards to overtime and minimum wages. This state-level agricultural exceptionalism perpetuates the historical pattern of farm work being performed by only the most marginalized populations of available workers. The information in this study may be used to support future efforts at strengthening protections for farmworkers, in terms of helping both to identify specific states’ model policies and geographic priorities for intervention. 

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Appendix A. List of Terms Excluded from Data Collection

- criminal code
- wage theft and wage boards
- unemployment insurance
- workers compensation
- specific sectors of irrelevant employment or laborers (e.g., disabled, school teachers, domestic workers, etc.)
- child labor and/or labor done by minors (even if relevant to agriculture)
- power of commissioners and/or power of regulators
- standards applicable only to public employees or government personnel
- standards applicable only to meat inspectors
- record-keeping requirements
- enforcement of labor laws
- tipped employees
- deductions for room, board, etc.
- flexible work plans
- requirements for posting anything in workplaces
- preemption and local power

After the incubator: Factors impeding land access along the path from farmworker to proprietor

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Abstract

Farmworkers aiming to transition to independent proprietorship often benefit from beginning farmer incubator programs that offer agricultural training, subsidized farmland rents, and marketing and business assistance. Incubator initiatives often align with various efforts to stem the tide of shrinking U.S. farm numbers and enhance the viability of small-scale, environmentally and socially regenerative enterprises. Yet even as these promising initiatives provide former farmworkers with initial tools for success, structural barriers can impede beginning farmers' eventual transition to independent proprietorship. Land access is one well-known barrier to entry. Impediments to land access for beginning farmers are frequently framed purely in terms of available acreage and/or sufficient start-up capital. Sociocultural and

relational factors mediating land access are less well understood. Our study addresses this gap, examining how sociocultural and relational constraints impede land access for former immigrant farmworkers aspiring to independent farming in California's Central Coast region. We employ qualitative methods, including 26 in-depth interviews, focus groups, and participant observation, to explore barriers to land access faced by aspiring small-scale organic farmers participating in an established regional organic farm incubator program. Our findings indicate that these beginning farmers are highly motivated, possess sophisticated farming skills, and wish to shape their livelihoods independently. However, their access to farmland is mediated by landowner and tenant farmer relationships, including lease arrangements, and sociocultural barriers, including ethnicity and/or cultural identity. In a context in which incubator initiatives are envisioned as means to facilitate new entry of former immigrant farmworkers into the agricultural sector, this case

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study analysis traces specific sociocultural contours associated with land access that impede successful proprietorship for beginning farmers. We conclude by suggesting potential strategies for addressing these barriers to entry in order to facilitate enhanced efficacy of incubator programs.

Keywords

farmworkers, incubator farms, labor, land access, tenure, beginning farmers

Introduction and Literature Review

Trends in declining U.S. farm numbers, including 370,000 farmers leaving the sector between 1982 and 2012 (U.S. Department of Agriculture National Agricultural Statistics Service [USDA NASS], n.d.), correspond with projections estimating that as many as 400 million acres (162 million hectares) of farmland will transition out of current forms of production in the next 20 years (Ross, 2014). Considerable agricultural analysis emphasizes the deleterious impacts of this trend for rural communities, economies, and the ecological land base (e.g., Lyson, Stevenson, & Welsh, 2008; Parsons et al., 2010; Ruhf, 2013). In an effort to address impacts associated with the shrinking U.S. agricultural sector, the U.S. Department of Agriculture (USDA) has provided over US \$100 million in program funding for the Beginning Farmer and Rancher Development Programs (BFRDP), with close to US \$19 million in available funds slated for 2016 (Brasch, 2014; Hils, 2015). Farm incubators represent one specific set of beginning farmer initiatives supported by USDA BFRDP programs (Hamilton, 2012), county extension offices, and a range of alternative agriculture initiatives and nonprofits (Ewert, 2012) allied in efforts to reduce risks for beginning farmers and enhance their long-term viability. Hamilton (2012) suggests that USDA support for these programs “represent[s] an exciting opportunity to revitalize and re-energize the work of the USDA” (p. 532).

Incubator initiatives typically provide targeted training in agricultural production practices and business and marketing skills and they frequently also offer farmland leases at subsidized rates (e.g., Agudelo, Winther & Overton, 2013; Ewert, 2012;

Hamilton, 2012; Overton, 2014). In 2010, Niewolny and Lillard suggested that a primary reason for the initial emergence of incubator initiatives was “because traditional forms of education are not addressing [beginning farmer] needs” (p. 71). Ruhf (2001) similarly identified a need for alternative forms of training to address barriers to entry for beginning farmers, noting, “as much as many new farmers have passion and adequate skills for farming, insufficient economic return may be the biggest barrier of all” (p. 3).

Incubator initiatives may also have particular contemporary salience in light of changing beginning farmer demographics, as seen, for example, in increases in the number of minority-operated farms, including a 21% surge in Hispanic-operated farms from 2007 through 2012 (USDA NASS, 2014), as well as increases in the number of women farmers (USDA NASS, 2012; see also Ewert, 2012). Many incubator programs explicitly target diverse populations: immigrant farmworkers, refugees, former prisoners, and military veterans. For example, the National Farm Incubator Initiative conducted a survey of 65 incubator programs and found “over 50% aim[ed] to serve refugee and immigrant communities” (Agudelo Winther & Overton, 2013, p. 14). In a 2013 national survey of 42 farm incubators, Overton similarly found that nearly 43% served refugees and immigrant farmers (Overton, 2014, p. 65). Incubator programs may thus provide mentorship to help mitigate myriad vulnerabilities faced by immigrant farmworkers hoping to farm independently. As Ewert concluded in a 2012 comparative study of three U.S. beginning farm incubators, “the real promise of incubator farm programs seems to be in helping new farmers make the transition from farmworker to farm operator” (p. 129).

However, a variety of structural barriers can impede the efficacy of incubator initiatives, including farmland availability and consolidation (e.g., Howard, 2016; Parsons et al., 2010), land costs and start-up capital requirements (Ahearn & Newton, 2009; O’Donoghue et al., 2011), and farmland valuation patterns skewed toward highest use value rather than agricultural production (Guthman, 2004a; Parsons et al., 2010). These structural constraints may present particular obstacles for

beginning farmers with various social, cultural, or economic vulnerabilities. As Ruhf (2013) notes, “within the beginning farmer demographic, socially disadvantaged, minority, women, immigrant, refugee, and veteran farmers have unique challenges in accessing land to farm” (p. 4; see also Parsons et al., 2010).

By creating a composite scale of 11 primary obstacles faced by beginning farmers, Overton’s 2013 national survey analysis of farm incubators examined whether these programs were able to address specific “barriers to entry—access to land, capital, education, markets, and equipment” (Overton, 2014, p. 17). Overton’s (2014) findings indicate that, in general, “farm incubators do address the common barriers to entry faced by new and beginning farmers” (p. 71). Ewert’s 2012 comparative case study analysis of three farm incubators similarly found that successful aspects of incubator programs included “access to knowledge and information; access to physical infrastructure; access to land; and support and camaraderie” (p. 129). However, Ewert (2012) also noted challenges within incubator programs that generally included “organizational structure, farming itself, group dynamics, and poor physical infrastructure” (p. 133). Additionally, for one particular farm incubator in Rhode Island, land access emerged as a specific, primary obstacle for those aiming to transition from the incubator program to independent farm proprietorship (Ewert, 2012).

Our case study analysis explores obstacles impeding successful transitions to proprietorship for participants (most of whom were formerly farmworkers) in a well-established California organic farm incubator program with the Agriculture and Land-Based Training Association (ALBA) in California’s Salinas Valley. As one of the nation’s oldest incubator and farmer education programs, ALBA distributes organic produce (particularly strawberries) throughout the Central Coast region. Through a targeted recruitment effort, ALBA

recruits beginning farmers from immigrant and farm labor backgrounds. Thus our investigation of proprietorship transitions for beginning farmers¹ represents the specific concerns of immigrant farmworker experiences. We observed numerous benefits for beginning farmers completing the ALBA program, including high-quality training in organic production, access to marketing channels, networking, and business support. However, as noted in the Rhode Island incubator case (Ewert, 2012), we also found land access with secure tenure to be a key transitional impediment for beginning farmers. In this paper, we examine some key factors mediating that land access.

Typically, barriers to securing farmland for beginning farmers are framed as contextually influenced by larger trends, such as land prices and overall farm profitability. For example, the Land for Good initiative reports that “rising land values, competition for good land, and declining farm profitability make it harder and harder for entering farmers to acquire land—either through purchase or rental” (Land for Good, n.d.). As most beginning farmers do not inherit land (e.g., Ahearn & Newton, 2009), the expense of purchasing agricultural land is frequently cited as an obstacle to successful farming (Ewert, 2012). Our case study analysis found that while land costs may prove an impediment to securing tenure, farmland access for beginning farmers aspiring to farm proprietorship proves far more multidimensional than simply the price of land, available acreage or capital, or a formal system of rights. Instead, complex social negotiations between actors in the food system also condition access for beginning farmers in this region. These negotiations include landlord-tenant relations (and associated lease arrangements), and sociocultural and relational barriers, such as race relations.

We structure our analysis by beginning with a concise overview of some of the historical and contextual conditions that California farmworkers commonly encounter. We then further

¹ Throughout this paper, when we employ the term “beginning farmer,” we reference the USDA definition of beginning farmers as those farmers or ranchers who have “materially or substantially participated in the operation” of a

farm or ranch for 10 consecutive years or less, as a sole operator or with others who have operated the farm or ranch for 10 years or less (Ahearn & Newton, 2009).

contextualize our discussion by examining how historic land arrangements and resource access patterns in California's Central Coast region typically have favored large-scale producers, creating conditions in which small-scale producers completing incubator programs are relegated to farming on marginal or residential land with insecure tenure. Next, we detail the methods of our qualitative study, which include 33 in-depth interviews (including 26 with beginning farmers and seven with incubator and/or organizational staff), participant observation, and two focus groups. Drawing upon access theory as a theoretical frame, we then discuss our findings and analyze the contours of farmland access.

Working the Land: Contours of California Farm Labor

Working California's large-scale commodity agricultural land holdings has always fallen to a low-wage, devalued, racialized labor force (Walker, 2001). In his essay "In the Strawberry Fields," Eric Schlosser, citing historian Cletus E. Daniel, describes how California has historically been in "search for a peasantry" (p. 15). Schlosser further explains that since the 1920s "the vast majority of California's migrant workers have been Mexican immigrants, legal and illegal... Most of California's produce is harvested today exactly as it was in the days of the eighteenth-century mission fathers" (Schlosser, 1995, p. 16). While the 1970s farm labor organizing, grape and lettuce boycotts, and labor unions secured remarkably progressive victories for farmworkers—including a minimum wage, collective bargaining, and unemployment compensation—many of today's labor scholars recount myriad injustices experienced by immigrant farmworkers.

For example, as Brown and Getz (2011) detail, in spite of California's progressive labor reforms, "significant improvements in farmworkers' material conditions have failed to materialize and food insecurity and hunger remain widespread within farmworker communities" (p. 123). They further cite the "striking evidence of farmworkers' devalued position [in] the decline in real wages over the past several decades" (Brown & Getz, 2011, p. 125). Martin articulates the demographics of

farmworker inequity, confirming a decrease of over 59% in farmworker wages since 1985 (as cited in Schlosser, 1995). Martin and Jackson-Smith (2013) also report that, "Average wages for foreign-born crop workers are lower than those paid to US-born workers. Although some farmers have increased worker wages and improved working conditions in recent years to retain hired workers, most have not raised worker compensation" (p. 2).

Injustices faced by farmworkers extend beyond wage inequity and food insecurity to the additional effects of agricultural practices on worker health. Harrison (2006, 2008, 2011) details environmental health injustices regularly experienced by California farmworkers through pesticide exposure, through "naturalizing regulatory neglect" and normal "accidents" (Harrison 2006, p. 506; see also Perrow, 1984). Similarly, in a participant action intervention study with California strawberry workers in the Salinas Valley, Salvatore et al. (2015) demonstrate how pesticide exposure extends to farmworkers' children, as farmers carry residues into the home. Holmes' (2013) ethnographic account also delineates ways that racism and anti-immigration sentiments toward migrant farmworkers impede their access to health care, despite farmworker conditions involving regular assaults to bodily health, to the extent that the life expectancy of the average California farmworker is 49 years of age.

Despite these entrenched and well-documented inequities, the story of farm labor injustice in California is far from uniform. Wells (1996), for example, deftly traces the uniquely textured history and uneven politics of production in the strawberry fields of California's Central Coast region. Wells shows how the decline in the Mexican *bracero* program in the mid-1960s, which had previously introduced a nearly unlimited wage number of laborers into California agriculture, catalyzed the reintroduction of the sharecropping system in this region, partially in response to labor shortages. This political shift precipitated a subsequent change in the labor landscape. Sharecropping embodied unique contradictions, in that it fostered a family-based system of social labor relations. Economically, sharecropping frequently engendered debt for vulnerable share tenants bound to the most labor-intensive form of produce

production in California. Wells also shows how powerful families maintained the agricultural status quo in this region through specific social relations, such as longstanding social networks between landowners and farm families. Wells' explorations of the ways that family power dynamics and social relations influence subsequent farming arrangements demonstrate that the social and ecological landscape is far more complex than a purely economic analysis would suggest.

Similarly, what makes Wells' findings particularly relevant to our case-study analysis are the ways in which the dynamics surrounding agricultural labor relations and land access are conditioned primarily by a complex set of social negotiations, rather than a formal system of rights. We explore this theme further as we describe the historical context of land access in California, followed by a discussion of resource access theory, which will afford us a lens through which we can empirically explore how these social negotiations influence farmland access in our particular case.

Historical Contours of California Farmland Access

Access to farmland in California historically was mediated by access to capital. Unlike many other regions of the United States, where yeoman farmers cultivated smaller land plots, farming in California never replicated the agrarian, Jeffersonian archetype (Guthman, 2004b; Schlosser, 1995; Taylor & Vasey, 1936). Rather, California agriculture began with large market-based operations on grand estates acquired from Spanish and Mexican holdings. These operations used industrial, mechanized techniques and, as described above, employed a devalued and racialized labor force (Walker, 2001). Entering farming in California meant entering a large-scale capitalist enterprise.

The capitalist nature of early agriculture influenced land valuation, ensuring that agricultural land was valued according to its maximum *potential* use value. These calculations were based upon the productivity of a preceding or neighboring industrialized system (Guthman, 2004a, 2004b). Cycles of crop bonanzas and/or high-value specialty crops, such as those seen with wheat (Schlosser, 1995), wine grapes (Guthman, 2004a, 2004b), sugar

beets, or (most recently) leafy greens (Henke, 2008), exacerbated this tendency. These land valuation dynamics have typically favored larger-scale producers, relegating even successful small-scale farmers to steeper hillsides, poorer soils, and regions ignored by industrial agriculture operations (Liebman, 1983). Today, small-scale farmers most frequently aim to secure a price premium based on niche markets emphasizing product quality, rather than competing with large-scale, volume-driven neighbors. Nevertheless, when smaller-scale farmers secure farmland tenure at scales meeting their production needs and capacity, previous rounds of agricultural land valorization typically influence their land rents or mortgage costs. These factors frequently exclude new-entry farmers with little access to start-up capital (Beckett & Galt, 2014).

Farmland access in California's Central Coast region has also been influenced by the ways in which the University of California (UC) Cooperative Extension supported large commodity-production systems. Henke (2008) shows how researching and promoting mechanization in this region served to strategically devalue the social power of labor union organizing. Henke describes how in an effort to bolster domestic sugar production during World War II, the Spreckels sugar company and other grower associations enlisted the mutual support of UC Cooperative Extension to research and deploy mechanized beet-thinning technologies. This ultimately rendered farm laborers, and their unions, redundant. For Henke, actions like these in the Salinas Valley represented a long social history of what he terms the "maintenance" of the agricultural system, in which powerful institutions and individuals exert their influence to uphold the prevailing production vision. As early as the 1940s, critics of the agricultural system in California advocated regulating land ownership patterns by breaking up large estates (McWilliams, 1939), but the pattern of large land holdings remained entrenched.

Defining Access

Since the problem of land access for beginning farmers is frequently framed as a problem of land availability and financial means, solutions to this

problem often begin with a focus on measuring and tracking metrics like start-up costs associated with renting land, the acreage of farmland likely to change hands, and trends in average farmer age (Ahearn & Newton, 2009; USDA 2013). Consequently, programs to address problems with farmland access focus on improving the economic viability of beginning farmers and/or increasing total land availability. For example, low-interest farm loan initiatives and increased markets for beginning farmers attempt to lower the prohibitive start-up costs of beginning farming, while land-linking programs attempt to match previously unavailable parcels with prospective farmer tenants (Sureshwaran & Ritchie, 2011; Zeigler, 2000). Programs like farmland trusts and legal mechanisms such as agricultural easements can simultaneously lower the cost of land and increase the acreage of available farmland by providing forms of long-term preservation while offering subsidized rent to particular applicants (Johnson, 2008).

Recognizing how social relations condition land access, our study seeks to understand how a variety of actors (farmers, landlords, real estate agents) work together in the context of specific regulatory and policy contexts to provide access for some and restrict it for others. In their articulation of access theory, Ribot and Peluso (2003) define “access” as the *ability* to benefit from a natural resource stream rather than being guaranteed use by a formal right. With respect to farmland access, the resource stream in question can be considered the productive capacity of the land for which a formal structure of rights is designed to guarantee benefits. And yet, despite those rights, it is the actors in the food system who mediate access to those benefits through social and relational mechanisms of inclusion or exclusion, including knowledge, sociocultural identity, authority, markets, technology, and social relationships. For example, the USDA’s Farm Service Agency (FSA) offers beginning farmers crop insurance and low-interest loans as a formal and rights-based system of support to gain access to land. However, these

supports tend to benefit those with particular sociocultural positions and/or familiarity with federal bureaucratic paperwork. Cowan and Feder (2013) show that established white male farmers receive the bulk of these supports, and a review of the demographic makeup of FSA disbursements reveals a relative absence of minority farmers.

Understanding access through this lens reveals the weaknesses of land-access intervention programs that solely emphasize economic or entrepreneurial solutions, providing insight into the social aspect of land access. This lens also allows us to focus empirically on the “range of powers—embodied in and exercised through various mechanisms, processes, and social relations—that affect people’s ability to benefit from resources” (Ribot & Peluso, 2003, p. 154). A focus on social mechanisms can also demonstrate, for example, how the wielding of legal authority can be linked to farmland consolidation through systems of social exclusion, thereby continuing to devalue farm labor through predatory contract arrangements (Geisler, 2015). In the following sections, we explain how we researched specific factors mediating farmland access for the farmers in our study. We then delineate our findings and conclude by discussing potential ways to address the obstacles faced by these new-entry farmers.

Applied Research Methods

Our case investigation primarily employed qualitative methods to explore challenges faced by beginning small-scale organic farmers in the Central Coast region. These methods included 33 in-depth semistructured interviews (26 with beginning farmers and seven with incubator and/or organizational staff members), extensive participant observation, and two focus groups. In collaboration with two regional community partners, ALBA and California FarmLink,² we examined the complex barriers and opportunities farmers encounter as they transition from ALBA’s incubator program to proprietorship. In the exploratory research phase, we conducted informal interviews with farmers and organiza-

with landowners, provides administrative assistance with agricultural leases, and offers microloans directly to entering farmers.

² California FarmLink, a statewide nonprofit, links farmers and ranchers to land and resources to support their farming aims. FarmLink aggregates local land listings, engages in outreach

tional leaders and held focus groups to collectively generate key research questions and themes. Particularities associated with land access emerged as a central barrier to entry for proprietorship.

We selected the interview participants through a purposive network-sampling approach, following recommendations of organizational leaders and ALBA farmers. Our primary goal with our sampling technique was to interview a diverse range of beginning farmers that could provide insights into the transition from farm laborer to proprietor. We interviewed 19 farmers who were current incubator program participants farming at the ALBA site, as well as seven farmers who had transitioned to farming independently off-site. Of the 26 farmers we interviewed, 21 were former immigrant farmworkers. Eight beginning farmers were women, while 18 were men; all farmers interviewed were under age 50 and had been farming for less than 10 years. In addition to farmer interviews, in an effort to glean the fullest possible picture of the beginning farmer experience, we also triangulated our sample by interviewing seven staff members at ALBA and California FarmLink. Most farmer interviews ($n=20$) were conducted in Spanish; the remainder ($n=6$) were conducted in English. We translated all interviews. All interview requests were granted, and no one with whom we requested an interview declined to be interviewed.

Interviews took place at ALBA's office in Salinas or individual farm fields and were often conducted between daily tasks, such as packing strawberries or harvesting crops. Questions focused on individual farming history, farmer motivations and goals, the challenges and opportunities associated with transitioning from the incubator program, the process surrounding farmland identification, and farmer experiences of land tenure. Most interviews were audio-recorded; when farmers did not wish to be recorded, we took detailed notes by hand. We carefully coded and analyzed these interviews for key themes; our findings helped us understand how new-entry growers in the Central Coast navigate the complex process of acquiring farmland.

In addition to the interviews, we conducted two focus groups. The first focus group was designed to co-define the research problem of

farmland access with participants in ALBA and California FarmLink. Members present were farmer-liaisons elected by incubator cohorts, additional ALBA farmers, and ALBA staff. The first focus group involved a group discussion to broadly define the major barriers to farming success. In the second focus group, the barriers identified in the previous session were prioritized by relative importance and then narrowed to a single research topic.

In addition to interviews and focus groups, we triangulated the data with ongoing participant observation to contextualize farmers' daily experiences. We shadowed farmers during daily operations such as hand weeding, sowing crops, filing paperwork, and scouting new land parcels to rent. We attended professional development meetings at ALBA's main office, California FarmLink presentations, and mixers with landowners and land seekers. We recorded detailed observations in a research journal; these observations helped inform the development of codes and themes for the interview analysis. Participant observation allowed us to foster ongoing dialogues with research participants and glean in-depth, textured narratives from farmers.

As we integrated the coded themes and analyses from the interviews with participant observation findings, several primary findings emerged. First, we found that farmers are highly motivated and wish to shape their livelihoods on their own terms. However, as mentioned previously, in addition to common land access impediments (suitable land availability and financial capacity), key sociocultural factors influence beginning farmers' ability to achieve autonomy. These include landowner-farmer relationships and complex sociocultural relations. Below we detail some motivations and benefits beginning farmers participating in the ALBA incubator program experience, followed by a discussion of key barriers to proprietorship.

Results

Incubating Proprietorship: Motivations and Benefits

As they aspired to transition from farm laborer to small-scale organic farm proprietor, a primary

motivation for a majority of the farmers in our study was achieving autonomy in their work. This contrasts sharply with their previous work harvesting, packing, or weeding in various large-scale Central Coast commodity crop operations. In a typical conversation, one farmer described his interest in independent farming this way:

I realized I could do the same kind of work on my own, making money, but with less stress. I could be making my own decisions, because a lot of the time you are doing your best and one person above you doesn't value you. And it's very frustrating when you're working hard and someone comes and says, "No, you need to work harder."

In addition to a desire for autonomy, some farmers in our study expressed a preference for organic production methods to protect their health and emphasize quality. They contrasted this with their previous work in conventional farm operations. A strawberry grower in the incubator program explained:

Actually, probably the conventional fruit is bigger [but] the quality is what people comment on. [I] saw that the organic product without fertilizers and rapid growth could have a better taste. [We] can see that without chemical residues it's healthier. So apart from economic support those are the two things I want to leave for my family, that they have a good meal and can be healthier.

A common theme that emerged in our study was that farming independently also allows many beginning farmers to imagine a better life for their children and grandchildren, in contrast to difficulties they faced as immigrant farmworkers. As one farmer described:

People who don't know how an immigrant lives won't understand; like living in an apartment of two or three rooms, two or three families, where children live on top of one another and can't go outside [like how] I lived when I arrived in this country. So, I

don't want that for my grandchildren. [I] want them to run, to have space, to run around outside in the fresh air, to play with dirt, and with rocks like I once did. I wish for them to have something to eat, to have an abundance of food[—]strawberries, watermelons, cantaloupes, tomatoes, [so] many things to eat. The biggest motive that I had [to become a farmer] was that if I had grandchildren, this is the way I wanted them to grow up.

The ALBA incubator program provides considerable support to aspiring beginning farmers, including small-scale organic production training; a distribution service option to buy low product volumes; farm business development; and information on regulatory compliance and organic certification. Farmers can rent equipment from ALBA, and they often share resources like irrigation tubing and tractor attachments. Beyond these supports, ALBA owns 170 acres (69 ha) in Salinas and Watsonville and rents land to qualified applicants at subsidized rates. Farmers begin by renting low acreages (one to three acres [0.4 to 1.2 ha]) at below market rates. Each year a farmer stays with the program, she or he may add acreage; gradually, she or he pays full market rent.

One farmer in his second year with the incubator program described the benefits of delivering produce orders directly to ALBA's on-site facility without needing to secure his own marketing channels.

I don't know how to move my product out into the greater market. For me it's an advantage to have someone who helps to sell my product. [Thanks] to ALBA I can be sure that my product is going to be sold, and I won't have to throw it out.

For many farmers in our study, the thought of leaving the supportive environment and subsidized land offered through ALBA is troubling. One farmer explained this widely held sentiment this way:

ALBA is good for me because they give me a good price for the land in addition to all of

the support they provide. If I could, I would stay with ALBA forever. Outside of ALBA is a whole other world.

ALBA offers myriad tools to help beginning farmers succeed. It provides substantial agricultural training and offers farmers a safety net that allows them to innovate and experiment with their production models. However, it also appears that these supports insulate new farmers from structural barriers that exist outside of subsidized land and programmatic support. As the program director conceded, “our transition services are relatively undeveloped.”

Land Access: Barriers to Proprietorship

An ALBA staff member articulated the farmland access problem succinctly during an early focus group. “The problem isn’t in how to farm,” he explained. Rather, finding land matching his vision of production and farming capacity represented the critical challenge. One farmer reaching the end of his tenure with ALBA’s incubator program described a typical transition challenge for beginning farmers, explaining how finding suitable land represents a key barrier to independent farming:

Well [it has been] really bad. I haven’t been able to find anything. It’s been about three years, and I haven’t found anything that is satisfying, like the quality [at the incubator]. Yeah there are parcels around, but sometimes they don’t have water, or they have other characteristics, like they are really far away, or they are not good for strawberries and that is what I want to put in.

Beginning farmers thus face tenuous transitions after completing ALBA’s incubator program. ALBA encourages members to eventually vacate the subsidized land they rent to allow space for incoming participants. In these cases, producers without farmland access report the need to leave farming or seek alternative work, including returning to farm labor. According to ALBA’s current executive director, as of 2013 45 ALBA farmers have completed the incubator program and moved on from the subsidized farmland ALBA maintains.

Of these, 12 continue to farm, 13 have ceased to farm, and 20 have lost contact with the organization. Initially, as ALBA maintained enough farmland to accommodate all incubator participants on an ongoing basis, some farmers continued cultivating ALBA plots after completing the program. Recently, however, most ALBA land is fully utilized, and the organization more strongly encourages farmers to move on after completing the program.

Beginning small-scale organic farmers transitioning away from the incubator to independent proprietorship may face challenges accessing land related to insufficient start-up capital and equipment, and they may also struggle with finding an affordable parcel of adequate size that fits their growing practices or has adequate water for irrigation. Land rents for level agricultural land with good soils and adequate water availability range between US \$1,200 and US \$2,200 per acre in Monterey and Santa Cruz counties, a cost that is prohibitive for most beginning farmers. In nearby San Benito County, land rents range from US \$500 to US \$1,200 per acre, but farmers indicated that these plots frequently have tenuous water security. Those with significant financial capital can invest in a well and irrigate with abandon, but small-scale new-entry farmers must rely on the county water or put in their own well—a costly endeavor. In some cases, farmers may enter into a lease, invest in a particular crop plan, and then fall victim to county drought restrictions. This is particularly relevant for farmers who enter into leases on ranchettes or other residential properties.

Interviews with aspiring beginning farmers identified not just challenges in finding start-up capital and available, suitable land, but also relational and sociocultural factors that mediate and create barriers to land access in complex, nuanced ways. We now detail these specific elements and show how new-entry small-scale organic growers must engage in complex relational and sociocultural negotiations to access farmland.

Landowner–tenant Farmer Dynamics

While many farmers we spoke with had concerns over land suitability, including water security, proximate access to markets, and soil quality, these

concerns were strongly associated with landlord-tenant farmer relational dynamics. These relational dynamics between landowners and farmland seekers in the Central Coast region help explain how land access generally, and agricultural leases specifically, are negotiated. As one farmer explained, “The ability to get into a piece of land is more than just knowing about it. [It] has to do with the relationship with the landlord.” Most small-scale new-entry farmers in the region must engage in informal, semiformal, or tenuous lease arrangements on residential properties. A landowner may reside on these properties or may intend to sell the land in the future, creating insecure tenure for new-entry farmers. This fosters a dynamic in which farmers are tenants first and farm proprietors second.

The landlord-tenant relationship necessarily influences their production, financial, and operational investment planning. According to employees of California FarmLink, no standard agricultural lease agreement exists, especially for rural residential properties. The nature of the leases dictates agricultural production strategies. Tenant farmers must negotiate who will pay for water, assume responsibility in case of erosion, or bear the costs of repairing or improving a domestic well. Thus a primary aspect of FarmLink’s consultations involves developing agricultural leases on a case-by-case basis. Without a formal lease, the tenant farmer faces considerable risks to their operation. Yet few farmers we interview possessed formal agricultural leases. A FarmLink employee explained how language and cultural barriers can make negotiating for a lease particularly challenging, describing:

Four growers in the room. [Only] one spoke English, and [it was] limited English. They were really excited that I could speak to them in their language and understand all of the ins and outs of their situation and that I could represent them in conversation with the landowners. For about 10 or 11 years they have been on a month-to-month lease [that] shouldn’t even be standing, but they just happened to be in this situation and didn’t have the resources to negotiate.

The challenges associated with securing more stable leases or owning land affects long-term production strategies. As one farmer explained:

If I were an owner I would put in some raspberry. That takes three years to grow and then six years of harvest, but how am I going to invest in something over 10 years from now if the owner can kick me off in three years? I can’t leave half my investment, that’s for sure.

Similarly, complex landlord-tenant farmer negotiations surround capital improvements on rented farmland. On a site visit with a new-entry farmer to a prospective six-acre (2.4 ha) parcel, the soil quality, rental price, and proximity to markets and access roads were ideal. However, the irrigation infrastructure was underdeveloped. This farmer described how there would not be sufficient water pressure to irrigate the upper parts of the parcel. While the prospective tenant farmer and landowner discussed who might incur the costs of improving the well, the negotiation was characterized by uncertainty. Without the landowner’s assurance of shared risk, this new-entry farmer hesitated to pursue the lease.

Often, the tenant may be expected to incur the entire cost of a capital improvement, even though the added value of the property is largely transferred to the landowner. This was the case when a farmer decided to invest US \$20,000 into a new well for a rental property in San Benito County. He explained:

The owner didn’t want to help us [pay for a well], and that’s one of those things where, if you decide to put it in you can’t bring it with you when you leave. I mean, how are you going to take it out if it is however many feet under the ground?

Similarly, since many leases operate on rancho properties, where the landowners envision benefitting from future residential property value, long-term agricultural lease tenure is consistently insecure. One aspiring small-scale organic farmer

lamented the problems associated with temporary leases, describing the challenge this way:

I think it's what's possible right now. Think of who's moving to Hollister to own a house? It's a lot of people who are commuting up to the Bay. [They] want to be able to afford to buy a house, a larger house, maybe a little bit of land, and with farming, are you really going to be able to make enough money to buy at the price that's here? [For] a small beginning farmer, unless you come from money and you can just come in and buy?

To successfully transition to proprietorship, beginning farmers must manage not only the complexities associated with farm operation, but also navigate complex relationships with landowners to negotiate even insecure land tenure. Competition for suitable land that matches their growing practices also influences farmland access for small-scale farmers; social relations characterized by economic position or other power dynamics mediate this. For example, participants described how available land is commonly offered in larger parcel sizes, between 50 and 150 acres (20 and 61 ha). Farmers described how landowners prefer to lease single large parcels to one renter. As one farmer explained, "I'm thinking that I can't get land with a large rancher, because they will want to rotate 100 acres [40.5 ha], not five [2 ha] or six [2.4 ha] with a person like me."

Larger-scale organic companies employ staff dedicated to identifying land and negotiating contracts with landowners. Farmers and organizational leaders from ALBA and California FarmLink described how area landowners often favor the established successful business models of larger organic commodity growers, particularly since larger-scale growers can assuage landowner concerns by pointing to a history of responsible land use. Additionally, while most large-scale farming operations overlook smaller, more marginal properties, small-scale beginning growers may nevertheless compete with the larger organic commodity growers for those properties too, if they are organically certified.

Moreover, some interview participants

described how some land deals never appear on any formal, visible public market. Instead, direct negotiations frequently take place between landowners, realtors, new buyers, and previously identified tenants. As these negotiations occur within social networks not typically accessed by beginning farmers (such as networks of real estate agents, buyers, and established farm businesses), their access to negotiations is limited. A matter as simple as a language barrier or ethnic identity can impede access. This underscores what Ribot and Peluso (2003) describe, that social relations mediate access to resources, even when a system of formalized rules regarding land transactions exist.

Given the fierce competition for farmland, mediated by social relations, small-scale organic growers in California's Central Coast region therefore tend to farm in marginal conditions: on slopes, distant from markets, and on residential properties with absentee or live-in landowners. Finally, while farmers may pursue various strategies to improve the land suitability for their operations, these changes may or may not match landowner objectives.

In one extreme case of this tension, for example, a beginning farmer began to make improvements to a rented residential parcel, only to be confronted with the landowner's objections:

My employer told me about [a piece of land of potential interest] and gave me the lady's number, and I called her, and I met her and she agreed. But later on the very next year, when she saw me, you know, putting up a tunnel for my transplants and other stuff, and saw that I was planting strawberries. She freaked out on me and she said, you know, I think you are doing more than what I might—I don't want my place to—she was afraid about the water, the pump actually. She said I don't think I have enough water for you to be doing this, so I need to move out. I had just planted those strawberries and so she gave me a 30-day notice and that was my, you know, my 401(k) investment money.

In this particular instance, the types of improvements the farmer implemented were not

fully explicated in the lease, which gave grounds for the landowner to revoke the farmer's tenancy. However, this example highlights how a landowner's vision of land use may easily conflict with a tenant farmer's agricultural production plan and therefore foster insecure tenancy. Given the aforementioned complexity surrounding landowner-tenant lease negotiations, as well as sociocultural barriers, this reinforces the complex dynamics surrounding land access for beginning farmers in California's Central Coast region.

Sociocultural Obstacles

In order to gain farmland access, farmers must first identify and assess suitable parcels. They must then negotiate leases with landowners and agree on capital investments. Finally, they must secure start-up capital and equipment. The sociocultural identity of the aspiring beginning farmer mediates each of these steps.

Sociocultural identity is linked to the perceived credibility of beginning farmers. One farmer who rents land on a ranchette near Salinas noted that the most important characteristic of prospective farmland was securing a future lease where the owner does not live in order to avoid constant scrutiny. During one interview a tenant farmer paused while passing the large ranch house saying, "Look at this house that *el señor* has. They are doctors and they are always looking at what I'm doing or what I don't do." He continued,

There are some owners that have the heart to rent to small-scale farmers, but there are very few people like that. One of the hardest problems is credibility—cultural credibility. The large part of property owners are Anglos, *gringos*, and the majority of us that are looking for small parcels are Latinos. So, culturally we disagree sometimes. And if there isn't anybody to intervene for you, it can be really hard.

This farmer's perception that his cultural identity influences his credibility aligns with recent data from the USDA, which indicates that 92% of all agricultural land in California rented to individuals or partnerships is rented to white landowners

(USDA NASS, n.d.).

Another example illustrates the role of social position in finding and accessing farmland. When seeking assistance to identify properties to lease, some farmers work with realtors specializing in agricultural properties. Many aspiring beginning farmers who are former immigrant farmworkers, however, eschew realtor assistance. As one farmer explained:

There are some [realtors] in Hollister, but it's never occurred to me to speak with them. [I] went once, but it was for a house, not for farmland. Four or five years back it was okay for that, but now [they're] asking for legal status. [They] are going to ask you for all of those things.

This farmer worried that he may need to demonstrate proof of legal status, in addition to financial stability. While real estate agents can ask for identity documents in order to assess the financial capabilities of the prospective lessor, it is illegal in California for real estate agents to screen prospective tenants for citizenship status (California Civil Code—CIV §1940.3, 2008). Nevertheless, this prospective farmer felt that his lack of U.S. citizenship would be used against him in the establishment of his farming credibility. In this case, California Civil Code formally guarantees access to resources, such as the services of a real estate agent, or the ability to rent land. But as Ribot and Peluso (2003) describe, informal social relations between the realtor and aspiring farmer influence actual resource use. The farmer's social position further complicates this dynamic.

Acquiring loans and operational financing also represents a barrier to some new-entry farmers who perceive their sociocultural position will influence the loan process. For example, farmers seeking local or individual loans or lines of credit may assume they will be automatically discounted as reliable loan recipients, even if rules of the loan application process officially guarantee fair, legally protected access. As one farmer explained:

[Look], the first need is a line of credit. No one believes in us, absolutely nobody, not

one bank, nor the agriculture companies, because they say “prove to me that you know what you’re doing.” Okay, how am I going to prove it to you? It’s like saying, [say] you are an architect but I never give you a building project, and then I ask to see proof that you are talented? [How] are you going to do it? You have to have an opportunity to demonstrate. And with us there isn’t one.

Another farmer explained a similar barrier: “I was working with [the Natural Resources Conservation Service] one time, to get support for a greenhouse, but I couldn’t get the funds because they want a valid social security number.”

The experiences of the few beginning farmers we interviewed that do not come from an immigrant farmworker background reinforced the theme of sociocultural barriers to land access. These farmers typically have greater access to resources, including farmland, primarily based on their social position and cultural background. In one instance, a new farmer began negotiations to rent a rural residential parcel in Santa Cruz County. In order to secure the lease, he described a required presentation he made to a group of neighborhood stakeholders:

And I’m trying to think that if I was in anyone else’s shoes, [I] don’t know, [if I] didn’t have the education I had, access to FarmLink, [if] I didn’t speak English very well, if I wasn’t completely literate, like this would never have happened. And it’s like impossible to ignore the implications of—I don’t know—race and class that goes into this. Everybody that lives here is elderly, white, upper middle class. I doubt, and I’m saying this with total honesty, if I wasn’t white, that none of them would have said yes, which I hate to say, but that’s what I felt.

Thus this obstacle to land access for beginning farmers is amplified by informal social relations, in which landowners may envision ideal agricultural renters, not based on farming skills or even access to capital, but on sociocultural variables.

When small-scale beginning farmers navigate

the obstacle of land access successfully, this entails a rare interpersonal savvy and ability to overcome considerable sociocultural barriers. It may involve not only finding a suitable farmland parcel where she or he can productively farm, but also identifying a well-financed investor willing to purchase marginal or residential land and then lease it to a beginning farmer. In one unusual instance, a beginning farmer initially identified a potential farmland parcel. He then approached a prospective investor with a proposal that the investor purchase the property and then allow the farmer to sign an agricultural lease. In this uncommon instance, the plan succeeded, and he described the process:

They [knew] how to invest. They have the capability, the financials to buy it. So they got it and since they knew that I was the one that told him about it, the guy started investigating and looked at my background and who I was. I met him several times and he said I want nobody else but you to farm it, so you have first shot. And that’s how I got here.

In this particular case, the beginning farmer was able to overcome sociocultural barriers to farmland access, including personal scrutiny into his background. However, this success—though inspiring—was not typical of the farmers we interviewed, most of whom were seeking secure land with limited success.

Discussion

In this paper, we describe a case in which former farmworkers seeking agricultural proprietorship as a means towards a more autonomous, healthy, and secure livelihood face structural barriers to accessing secure, fair, quality farmland. The barriers they encounter align with theories describing resource access as a “bundle of powers” rather than a “bundle of rights” (Ribot & Peluso, 2003). In this frame, we have traced a series of social negotiations that beginning farmers must navigate in order to access and benefit from a resource that centrally defines their livelihood: affordable, secure, suitable farmland.

Each of the barriers we discuss has a strong structural component. Farm incubators, by design,

initially insulate beginning farmers from some of these structural problems. These initiatives endeavor to bring transparency, equity, and affordability to farmland lease arrangements. They closely align sociocultural and economic needs with programmatic training and support. Incubator farms such as ALBA, and particularly those that sell and distribute produce grown on site, also have a collective interest in maintaining land quality, water access, and long-term agriculturally oriented infrastructural investments. But when faced with barriers accessing land after tenure with an incubator, farmers must face *structural* obstacles with *individualist* or entrepreneurial strategies. Farmers may be forced to seek lawyers for legal arbitration, negotiate lease contracts with landowners, and scrutinize land for attributes particular to their individual operation. They may attempt to secure personal loans to pay for well installations, farming equipment, or other capital improvements. Within this context, the beginning farmers we interviewed face unique land access constraints reflecting their sociocultural position (see also Parsons et al., 2010). Therefore, gaining access to California's Central Coast farmland as a new-entry farmer entails considerably more than motivation and skill. It requires overcoming a host of structural barriers.

In California's Central Coast region, access to agricultural land is treated as an individual, private good. Yet the resilience of the agricultural system benefits public interest. Thus, farmland access dynamics are characterized by a prevailing system of concentrated costs and widely distributed benefits. Perhaps the most troubling aspect of farmland access barriers is the way that these obstacles generate yet another "maintenance" mechanism (e.g., Henke, 2008) to preserve the status quo of modernized commodity agriculture in the California Central Coast region. Those with the ability to navigate the barriers may represent an incipient wave of motivated, ecologically sensitive beginning farmers. But those who do not navigate these barriers may remain devalued farm laborers, serving to maintain "race-to-the-bottom" agriculture. We suggest that these exclusionary features of land access dynamics should provoke practitioners involved in new-entry programs to ask precisely *who* is to be the next generation of farmer,

given these structural constraints.

In spite of the transitional challenges faced by those completing incubator programs such as ALBA, the success farmers experience *within* these initiatives may prove instructive to beginning farmers facing challenges to their viability. One potential strategy for viability for farmworkers transitioning to proprietorship may be found in replicating and scaling up elements of the cooperative structure ALBA affords. Rather than encouraging boot-strapping independence, incubator transition services might help foster new models for land-based cooperatives outside the incubator farm structure. "It seems valuable," Ewert (2012) observed "to give more recognition to the importance of these connections among producers. Incubator farms are not the only way producers build relationships with each other; grower cooperatives and" (p. 143; see also Hassanein, 1999).

However, while incubators might help to foster more cooperative models for transitioning beginning farmers, suggesting the scaling up of incubators themselves is an insufficient strategy. It fails to consider that increasing acreage is already a part of many incubator mission statements, and the national median land base of farm incubators is only 10 acres (4 ha) (Overton, 2014). Moreover, we ask: should the task of mediating these larger structural issues fall to incubators alone? Arguably, adequate attention to the barriers our findings contextualize would demand not simply a comprehensive transition program, complete with legal training or services, training in negotiation, and tools to facilitate land suitability analysis, but more sweeping changes to land access regimes overall. Additionally, while incubators could feasibly help facilitate productive dialogue in landowner-tenant negotiations, this intervention may not overcome deeper structural obstacles—like ethnocentrism—involved in the selection of tenants in a competitive and ethnically lopsided rental market.

Instead of submitting that incubators simply take on these additional programs and responsibilities, our findings corroborate calls for a renewed look at the public-good dynamics of agricultural land as a part of a regional planning conversation (Ikerd, 2013). In this view, land with

the potential to contribute to regional well-being through quality food provisioning would be rezoned and insulated from nonagricultural value. Such a public-policy based approach to overcoming land access barriers is consistent with calls for innovative and place-based land tenure reforms, instead of relying on historical models of farmland transfer (Ruhf, 2013). Incubators might prove ideal tenants or owners of publicly supported farmland, given how they can transparently consider access barriers associated with landowner-beginner farmer dynamics. These regional planning initiatives would not only be a commitment to beginning farmers and regional foodways, but also an effort to stabilize the farmworker-to-proprietor pathway.

Conclusions

Our analysis suggests that well-intended efforts to facilitate the dual aims of helping former farmworkers transition to proprietorship may face limited success if various land access barriers are not addressed structurally. In this particular case study analysis, beginning farmers face substantial social and structural barriers to land access, in spite of benefitting from robust agricultural training and myriad business and operational supports. As incubator models become more established nationally, exploring participant transitions through additional comparative research would help understand how these programs influence regional food systems. We recognize that in other national regions and sociocultural contexts, farmworkers aiming to transition to proprietorship face unique challenges, including more seasonal work patterns or lack of access to incubator farms altogether. Also, while sociocultural factors conditioning land access may prove relevant nationally to many small and mid-sized beginning farmers, other contextually specific factors may prove more relevant, such as regional land price variations or factors such as overall quality of farmland. We therefore suggest that future research should include comparisons with other cases. The analysis we offer here allows us to begin asking *how* new farmers will emerge. And, more importantly, under what social, economic, and ecological structural conditions can they thrive?

We suggest that posing and addressing these questions is critically important, particularly for

former immigrant farmworkers seeking proprietorship in an effort to determine their livelihoods and futures on their own terms. A conversation with a struggling beginning farmer illustrates both the importance of practical land access for a viable transition to proprietorship, as well as the instability of the steps toward that transition absent meaningful structural change. When asked what he might do if he cannot find a farmland site after leaving the incubator, one farmer explained:

Farmer: Well, if I don't find another place, I'll get a job [to] keep supporting my family.

Interviewer: What type of job will you look for?

Farmer: Most likely in the field, once again, because I know how the equipment works, how to do some repairs, tractors all that. [The] field is where I've been given work, the field is where I work now, and I can work there again if I give up on this. 

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Forging links between food chain labor activists and academics

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Abstract

Interest in food movements has been growing dramatically, but until recently there has been limited engagement with the challenges facing workers across the food system. Of the studies that do exist, there is little focus on the processes and

relationships that lead to solutions. This article explores ways that community-engaged teaching and research partnerships can help to build meaningful justice with food workers. The text builds on a special roundtable session held at the Annual Meeting of the American Association of Geographers in Chicago in April 2015, which

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involved a range of academic scholars and community-based activists. We present these insights through a discussion of key perspectives on collaborative research and teaching and learning as food-labor scholar-activists. We argue that despite significant gaps in the way that food movements are addressing labor issues, community-campus collaborations present an opportunity for building alliances to foster food justice. Building on our collective analysis and reflection, we point to five recommendations for fostering collaboration: connecting to personal experience; building trust; developing common strategies; building on previous community efforts; and, appreciating power differences and reciprocating accordingly. We conclude with some final thoughts on future research directions.

Keywords

academic, activist, community-engaged scholarship, food movements, food justice, food systems, food workers, labor, teaching

Introduction

Despite the growing interest in food movements over the past few decades, scholars and activists have been minimally engaged with the challenges facing workers across the food system. Most food movement initiatives narrow their focus to issues related to consumers, family farmers, and environmental sustainability, while the work of the people who plant seeds, harvest crops, process, package, deliver, prepare, and serve food often goes unaddressed (Allen, 2008; DuPuis & Goodman, 2005; Gray, 2014; Guthman, 2004; Harrison, 2008, 2011; Jayaraman, 2013). Yet the food system is the largest employer in the United States, with almost 20 million workers (one-sixth of the nation's workforce) and is responsible for over US\$2.2 trillion in goods and services annually, accounting for 14 percent of the US GDP.¹ In Canada, the food system generates CA\$106.9 billion in economic activity (6.7% of Canada's GDP) and employs over 2.2 million people, one in eight jobs (Agriculture and Agri-Food Canada,

2015). While many food workers are citizens, a significant number come through temporary migrant worker programs or are undocumented.

At every link of the food chain, the majority of workers struggle with low wages, lack of benefits, and unacceptable and even dangerous working conditions. These jobs are disproportionately held by people of color, who, relative to the general population, are paid less and hold fewer management positions (Liu & Apollon, 2011). From farm to table, workers of color, particularly immigrants, are treated as expendable bodies, whose human rights and health are disregarded for the sake of profit (Barndt, 2008; Holmes, 2013; Harrison, 2011; Schlosser, 2004). This racialized exploitation is rooted in a colonial legacy through which agricultural, processing, food preparation and service workers of color have faced systematic oppression, on national and international scales (Mintz, 1985; Williams-Forson, 2006).

Food movements² are beginning to link concerns with food quality and sustainability to the kinds of organizing work that labor activists have been engaged in for the last half-century. Especially in the fields, workers have successfully challenged unsafe and exploitative conditions, although the movement, largely led by the United Farm Workers (UFW), peaked in the 1970s and has lost strength and general consumer support in recent years (Bandacke, 2012; Ganz, 2009; Garcia, 2012; Martin, 2013). The attention to labor by food movement activists of today is more comprehensive than ever before, as evidenced by the growing number of organizations working in particular food sectors, from the Coalition of Immokalee Workers (CIW) in Florida's tomato fields to the Restaurant Opportunities Center United (ROC) organizing in cities across the nation (Jayaraman, 2013; Minkoff-Zern, 2014). In addition, cross-sectoral linkages are being made by coalitions and solidarity alliances, such as the Food Chain Workers Alliance and the Fight for \$15, bringing together workers from

¹ Analysis by Food Chain Workers Alliance (2012) of the U.S. Economic Census.

² We refer to "food movements" as the range of multiscaled and cross-sectoral networks of individuals and organizations with the broad goal of challenging the logistics of the dominant food system while creating more socially just and ecologically sustainable food systems for all (Levkoe, 2014).

across the food chain to address labor abuses from a broader food systems perspective (Lo, 2014; Sbicca, 2015).

While many critical studies have pointed to the problems workers face across food systems (in addition to those cited above, Besky, 2014; Brown & Getz, 2011; Gaddis, 2014), there is a distinct lack of focus on the processes and relationships that lead to solutions, especially within the broad array of work undertaken by food movements. More specifically, how scholars might engage in this work is also unclear. There is a long history of academic institutions becoming involved in research and teaching that is ostensibly rooted in community needs. This engagement has traditionally taken the form of community-based research, participatory-action research, and community-engaged learning³ (Buys & Bursnall, 2007; Strand et al., 2003). While there has been increasing interest in building community-campus partnerships (Barnett, 2007; Powell & Dayson, 2013), many community-based organizations have reported that universities and colleges too often privilege the work of faculty and students while failing to adequately consider and address community needs (Bortolin, 2011; Ward & Wolf-Wendel, 2000). Further, many well-documented studies have criticized academics for not engaging substantially with communities and failing to challenge systems of social inequality (Mitchell, 2008; Swords & Kiely, 2010).

Notwithstanding the limitations of past experience, we suggest that community-campus partnerships present an important opportunity for building more robust and impactful food movements. In this respect, research on ways that food systems can be made more socially just and environmentally sustainable has been foundational to developing a critical and informed analysis for both theory and practice (Allan, 2008; Brem-Wilson, 2014; Wakefield, 2007). Further, campuses have long been vibrant spaces for student and faculty activism both for localized projects and for broader campaigns to build more just and sustainable food systems (Barlett, 2011; Friedmann, 2007).

³ Community-engaged learning is also referred to as community service-learning.

In this paper, we describe a series of efforts that aim to highlight the experiences and potentials for community-university partnerships to play a stronger role in addressing issues of labor across food systems. We present reflections from a roundtable discussion between academics and community activists held in Chicago in April 2015. In what follows, we first describe our process and methodology (i.e., how we organized the roundtable and analyzed the outcomes) before turning to the central themes that emerged from what proved to be a productive, insightful conversation. After some initial reflections on collaborative research, we move to the role of teaching and learning as a scholar-activist, and then to five crucial recommendations for fostering collaboration. We conclude with some thoughts on future research directions.

Methodology: Organizing and Reflecting on a Scholar-Activist Roundtable Discussion

To identify how community-university teaching and research partnerships can meaningfully help to build justice for food workers, we organized a roundtable session at the Annual Meeting of the American Association of Geographers (AAG) in Chicago in April 2015. Organized by Charles Levkoe and Nathan McClintock, the session brought together community-based activists and scholars committed to labor struggles at various links in the food chain. To determine the make-up of the panel, we first brainstormed a list of food scholars—both faculty and graduate students—who we knew were working on labor issues and who would be attending the AAG meeting. We attempted to strike a balance between faculty and student experiences, so we ultimately recruited two graduate students, Amy Coplen and Anelyse Weiler, and two faculty members, Jennifer Gaddis and Laura-Anne Minkoff-Zern. The academic participants have partnered in various ways with a variety of food labor groups, including (to name only a few) UNITE HERE!, the Central New York Workers Center, and Justicia for Migrant Workers. In addition to Joann Lo, who was attending the meeting to participate in a related session, we wanted to include a local food labor organizer who had experience working with academics. A Chicago-based member of the Geographies of

Food and Agriculture Specialty Group, which was sponsoring the session, reached out to the local chapter of Restaurant Opportunities Center United (ROC) to invite Felipe Tendick-Matesanz.

Prior to the roundtable, the session organizers asked the panelists to draw on their experiences by reflecting on the various ways that academics and activists can build strong and effective collaborations to support ongoing movements organized by farmworkers, food processing workers, restaurant workers, and their allies. We asked each person to prepare a short presentation of no more than ten minutes that would consider the following questions:

- What research questions need to be answered to help advance these struggles?
- What does this kind of activist scholarship look like?
- How can teaching help build alliances to foster food justice?
- What kinds of collaborations have worked best and why?
- Should the research process be participatory every step of the way, or is there a welcome division of labor?
- What kinds of institutional support can academics provide for activists, and vice versa?

During the session, each participant presented their initial responses to the above questions, before the floor was opened up to comments and questions from members of the audience.⁴ With the small scale of the room, the conversations were both intimate and productive.

The roundtable and the ensuing discussion was recorded and transcribed verbatim. Levkoe, McClintock, and Minkoff-Zern individually reviewed the transcript to identify dominant themes emerging from the roundtable. After we

came to a consensus about which themes were the most important, McClintock used Dedoose, a qualitative data analysis software tool, to code excerpts from the transcripts, which were exported and organized into a coherent outline and eventually written into a draft manuscript by the first three authors. The remaining authors—all panelists—then provided feedback on the draft. We have organized this paper into three sections to address the themes, both synthesizing panelist comments and integrating direct quotes from the conversation. The incorporation of lengthy direct quotes in the text (which appear in italics) is intentional, as a way to give voice to a range of participants. While the first three authors took responsibility for drafting the manuscript, all authors collaborated to develop the ideas presented in this paper, whether before, during, or after the roundtable session, as we believe that sharing authorship with community-based practitioners is one of the keys to successful community-academic partnership collaborations. More than simply giving credit where credit is due, sharing also helps to recognize and acknowledge that the production of knowledge is a social process, which is negotiated and/or contested across hierarchies of power. We hope, through this approach, to model our commitment to collaboration at multiple stages along the process, as well as to capture the interactive and conversational feel of the panel itself.

What Does Collaborative Research Look Like?

The critical issues facing workers across food systems present important strategic opportunities for collaborative research between academics and community organizers. While there are growing bodies of scholarship focusing on aspects of labor justice and on food system sustainability, attempts to bring the two together have been limited. The few studies that do exist have been focused on themes distant from concrete concerns facing workers. Moreover, the research has not directly served the needs of campaigns working to change policy and/or practice. The roundtable participants identified this as a missed opportunity for faculty, students, and community organizers, and suggested ways that collaborative/participatory research

⁴ The one-hour-and-forty-minute session, titled “Labor/Workers Across the Food Chain: Building Collaborations Between Activists and Academics,” was open to all conference attendees and promoted by the Geographies of Food and Agriculture Specialty Group. Approximately 50 people attended.

could produce more rigorous, high-quality findings, as well as ensure that the results could be more widely used by organizers and activists.

Diverse Forms of Collaborative Research

One of the roundtable participants noted that there is already a significant body of excellent academic research that could be useful to worker justice campaigns. The challenge is that much of it is inaccessible to activists and needs to be organized and disseminated in ways that are relevant to current organizing efforts. However, Felipe Tendick-Matesanz (FTM) lamented that while we continue to talk about the problems, “the truth is, until there’s worker power and we are able to address the systemic issues, we’re not going to get anywhere.” Considering solutions emerging from collaborative research partnerships, a number of the participants discussed successful examples of collaboration they have been involved with and identified what worked well. Particularly successful were those cases where academics and workers developed projects in partnership and that had mutually beneficial outcomes, and cases where academics were able to take on work that community-based organizations and coalitions did not have the capacity to complete.

Jennifer Gaddis (JG): *In 2013, I worked on a campaign called Real Food Real Jobs with the labor union UNITE HERE! in New Haven, Connecticut. (It was not something that I set out to do originally.) I was doing a lot of work in school contexts and a lot of the food workers got to know me and I had gotten to know them. They were concerned about the quality of the food they were serving and felt very frustrated that they lacked the hours and autonomy to do anything other than re-heat premade foods. (They wanted to do a campaign that would address both problems at once.) The organizers asked me to participate because they thought I could help with the research and writing of a report that would capture their vision for reforms.⁵ Attempting to build a coalition to address these issues, we put together a panel of different people, including high school activists, workers, an alderman, and a labor organizer, to present at a food conference at Yale. We also did several actions at different*

places in the city and went on the radio. After about nine months of this campaign, the workers generated enough support to win a binding contract with the city of New Haven that would create more “cook” positions in the schools. They were also able to start a pilot program that would bring more fresh cooking and more local sourcing into the schools.

While a faculty member made this specific comment, this kind of community engagement is not limited to faculty. Anelyse Weiler, a graduate student, describes below the ways in which she was able to provide useful research and productive analysis for a community group, with tangible outcomes.

Anelyse Weiler (AW): *Over the past year, I was involved in a project that was part of a graduate community service-learning course at the University of Toronto. The partnership took place over eight months with a nonprofit food networking organization in Ontario with a mandate to promote ecological and economic viability for farmers as well as address issues of food justice. The organization recognized that the questions surrounding migrant farm labor were really important, but that they did not have the resources to be able to address this issue. The project’s purpose was to gather ideas from diverse groups across Ontario on how to advance healthier and more dignified livelihoods with migrant farm workers. Our collaborative research involved eleven interviews with government representatives, farm worker justice groups, health service advocacy groups, and farm lobby groups and farmers. As part of the outputs of the project, we created a blog series co-published by a farm worker justice group in Ontario and included a survey to get feedback.⁶ The next steps of this project went beyond the scope of the course to share the action recommendations back with all the stakeholders that we interviewed and figure out how to turn these ideas into a provincial action strategy.*

Academics have some unique skills to address food labor concerns, like drawing linkages between previously unconnected ideas and doing rigorous empirical research to support better informed decision making. Sometimes organizations don’t have the capacity or the resources to do that kind of empirical research or, in the case of my project, build

⁵ The report is available at <http://www.realfoodrealjobs.org/wp-content/uploads/NH-Cafeteria-Report-for-web.pdf>

⁶ The blog series is available at <http://sustainontario.com/2015/03/24/26236/news/migrant-farm-workers-and-ontarios-food-movement-finding-common-cause>

new audiences for ideas. Our blog series received both critical and supportive feedback from readers and groups I did not expect. For the migrant justice organization that co-published the blog series, it was an opportunity to profile some of their work to an audience of food activists who weren't necessarily aware of local migrant farm worker justice initiatives.

In the comments below, Joann Lo, a community organizer, expressed ways in which academic research benefitted her work on improving food worker wages, particularly by contributing in-depth analysis that nonprofit staff did not have the time to do.

Joann Lo (JL): *In 2012 we published a report called “A Dime a Day” collaboratively with the Food Labor Research Center at the University of California (UC) Berkeley and Professor Chris Benner from UC Davis.⁷ For that report, we considered how raising the minimum wage to US\$10.10 per hour—which was the proposal in Congress at the time—would impact food prices for the average American household. Our member organizations at the Food Workers Alliance have talked about the need for living wages for workers across the food system. But a lot of people asked, “Won’t that make food too expensive for low-income communities, for the workers that you’re trying to help?” So we realized we needed to answer this question. It was helpful to partner with Chris because he had the time (i.e., he was on sabbatical and had money to work with us) and the analytical skills to run the numbers for us. We guided what the report would look at, and Saru Jayaraman, the Director of the Food Labor Research Center at UC Berkeley and also the co-founder and co-director of Restaurant Opportunities Center United, wrote the report, bringing not only her academic background, but also her activist background. That was a very positive experience working with academics.*

Workers as Researchers

Another important theme that emerged from the roundtable was the idea that healthy collaborative relationships should recognize that workers (and activists) are more than just sources of data. Through participatory methodologies, workers can play a role as active researchers and knowledge

producers. These approaches can also enhance the quality of the research and its outcomes, as well as empower researchers with new skills and knowledge. In the following comments, Joann Lo discusses the roles workers played in carrying out research for the Food Chain Workers Alliance. She describes the ways that engaging workers as part of the research process can be empowering as well as an ideal way to form alliances between organizers and academics researching and teaching about similar issues.

JL: *At the Food Chain Workers Alliance, we see workers and organizers as researchers in that we can create and produce our own research and knowledge. Adopting a participatory action research methodology, we produced a report called “The Hands that Feed Us” in 2012 (Food Chain Workers Alliance, 2012⁸). We also worked closely with the Data Center, a nonprofit organization that supports social justice and community-based organizations, to help us do some initial analysis of government data. We shared it with food workers and asked for their feedback and thoughts on ways to move forward with our research.*

At the same time, we created an advisory committee of academics and researchers from around the country, not to direct our research but to give us advice. We then developed a survey that was piloted by our member organizations, and the Data Center helped us put together a session to train workers to go back and train other workers to be surveyors. We collected over 600 surveys from around the country from April to December in 2011. And then we analyzed them with help from a grad student at the University of California, Los Angeles. Part of our goal was to build the leadership of workers that could be the ones doing the research, and then go out to talk to and recruit new workers to their organization by taking on the role of being a trainer. It was helpful to have that partnership with UCLA professors and our broader academic advisory board. Now “Hands That Feed Us” is central to a lot of our public education work that we do and has contributed to other projects and to building the food justice movement.

Negotiating Barriers

When conducting community-based, activist-oriented collaborative research, we must also

⁷ The report is available at <http://foodchainworkers.org/wp-content/uploads/2012/10/A-Dime-A-Day-Report.pdf>

⁸ This report is available at <http://foodchainworkers.org/wp-content/uploads/2012/06/Hands-That-Feed-Us-Report.pdf>

consider addressing questions of ownership and accountability: Who owns this data? Who owns the writing? Who is acknowledged and credited for the production of knowledge? Who holds the researcher accountable for sharing the outputs? These questions all point to the need to negotiate challenges that arise in both the academic and community sectors. Working in partnership also keeps academics more accountable to those they are doing research with, as explained in the comments below.

JL: I have heard many examples from member organizations where academics or students interview the staff and workers and they say they will come back or share what is produced. In most cases, they never hear from them again. This has happened to me many times. In one case, an organization ended up seeing what was produced and it was a complete misrepresentation of what they do. Now that organization requires any researchers to sign an agreement about what's going to happen with the research at the outset. For our "Dime a Day" report, it was truly collaborative, and we felt like it added legitimacy in that we would be taken more seriously by policy makers. So we were fine with having Chris Benner's name on the cover as a co-author. Again, it goes back to the goal of the collaborative research. In the case of the "Hands That Feed Us" report, we really wanted it to be from the Food Chain Workers Alliance because the research was from workers.

Structural barriers within academia can exacerbate tensions related to the co-production of knowledge. For example, when working within a community context there are often multiple contributors to the knowledge production process. Yet academics are often expected to produce solo-authored, peer-reviewed manuscripts for publication in journals or with an academic press, using technical or discipline-specific terminology that may be less accessible to community partners. These realities point to the increasing neoliberalization of academia, which also includes reduction in public funding with increases in private funding, the individualization and professionalization of education, and a host of other issues that can serve as barriers to relationship building (Giroux, 2014). Thus, presenting research data to both academic and popular audiences may end up doubling a

scholar's workload. From the presentations and ensuing discussion, it became clear that career advancement was not the motivating force behind decisions to become involved in these kinds of community-campus collaborations. However, academics must still be conscious of their responsibilities to conduct rigorous research.

One way this dilemma can be addressed is for academics and community partners to think strategically and collaboratively during the design phase of the research. Developing long-term relationships that begin at an early stage can help the project be mutually beneficial to everyone involved and can alleviate additional burdens (e.g., unrealistic expectations).

JG: When we began our project there had been a previous Real Food, Real Jobs campaign in Chicago public schools that had used worker surveys, so we were able to build on their experience. The organizer leading the New Haven campaign, Cristina Cruz-Urbe, and I took the basic list of questions from the Chicago surveys and combined our collective understanding from interviews with the workers to formulate questions that would be specific to our community in New Haven. We developed a list of questions that were really interesting for me as a researcher, useful for UNITE HERE! in their campaign, and relevant to farm-to-school advocates interested in getting more "real food" in schools. I tried to manage different aims and expectations by workshopping survey questionnaires and interview guides with different stakeholders before starting to collect data. After having the workers collect surveys in New Haven, Cristina and I co-wrote a report that we really viewed as an organizing tool to build community support for the campaign.

At the same time, social scientists must negotiate the action-oriented needs of their activist partners and the requirements of their discipline to use a critical lens in the analysis. In the comments below, Anelyse Weiler describes how she made use of her position as an academic and activist researcher. She explains how she found a productive way to critique the limitations without cutting ties to her nonprofit partner, ultimately leading to an analysis that was used to further their work.

AW: I don't think participatory research means relinquishing our license as academics to be critical. For academics, I think it's useful to retain a productive tension between doing value-based work as part of a community partnership, and simultaneously thinking more analytically and critically. Like any nonprofit, my community partner carefully curates its publication content to set a particular tone in the public sphere. At certain points in my service-learning partnership, however, I became uncomfortable with some of the constraints around the content we could publish. They wanted me to profile more positive stories about farmers in the blog series to ensure we were not vilifying or ignoring farmers. In some cases, there was a withholding of particularly controversial solution ideas interview participants had proposed. For instance, we couldn't endorse legal supports for farmworker unionization because many farmers feel unionization is unfeasible. We had to avoid branding the organization as championing solutions some perceive as unworkable or, in effect, poking the farm lobby bear. It was not necessarily appropriate for me to challenge the community partner's approach to content curation, so I decided to step back and reflect on the constraints facing nonprofits more broadly, and why it is they often face those pressures. I was also forced to consider some of the challenges faced by networking organizations that attempt to play a mediating role between ideas from farmers and farmworker justice groups, and then trying to take those ideas into the public sphere. And a lot of it, as I came to learn, had to do with funding, membership, and maintaining reputability with government. Many other nonprofits face similar challenges of striking a middle ground that challenges the status quo but without appearing too radical.

Panelists and audience members also discussed the importance of choosing the right political moments to be critical of data. As activist-researchers, we must address the tension between remaining critical and conducting action-oriented work that supports labor struggles. An audience member noted that one must decide when to be “critical for a purpose” rather than critical only because one has the tools to do so or because it is what is expected of critical social scientists, stating that there is a tension between research that is “instrumental on behalf of organizations and critical work that ends up being in a peer-reviewed journal.” But another audience member countered, “I don't think it has to be a dichotomy and I think

there's a lot of flexibility.... I think it's really about making sure your work gets in the right people's hands.”

JG: One of the important things about having these academic-activist relationships is for us to understand what kinds of constraints each other are under and how we can establish projects that are useful for both parties. I want to be doing things that are relevant to communities, but peer-reviewed publications are what allow me to keep my job. My department is very supportive of community-based participatory research, but the committee at the division level that decides my tenure case is much less familiar with this type of work. There are still a lot of barriers and we need institution-wide conversations.

As Jennifer Gaddis notes, one's ability to do community-engaged work depends on many levels of scrutiny. This is an ongoing struggle for scholars attempting to do this kind of work within an academic institution. As she suggests, we must address these limitations not only as individuals, but also at the multiple levels of academic administration. Furthermore, we must work to reshape our own expectations about what we are able to achieve. Gaddis adds: “It's also important to have conversations with other community-engaged scholars about how we can better document our work so that the value of what we're doing is clear to others.”

Teaching and Learning as Food Labor Scholar-Activists

While collaborative research was a prominent theme that emerged from the roundtable, participants also focused on some successful examples of using teaching to support food labor activism. With the rise in popularity of food studies, the classroom provides an excellent opportunity to engage with food labor issues and to foster not only critical thinking among students, but also to provide local activists with material resources, research skills, and/or time that they may not normally have available. Some critical food scholars have begun to document their engagements with food justice organizations through community-based research and community-engaged learning (Aftandilian & Dart, 2012; Andrée et al., 2014;

Hayhurst et al., 2013; Levkoe et al., 2014). Despite this growing literature reflecting on the role that community-campus engagement can play in contributing to transformative food systems change, labor issues are rarely included in these efforts.

Roundtable participants discussed their experiences in the classroom. They noted that an important part of working with students—many of whom have not thought about labor issues before—is to draw connections to their daily lives. While rooting teaching and learning in critical social theory is important, these theories need to be grounded and presented as a way to understand and analyze empirical observation and everyday life. Participants spoke about ways that building on their students' experiences as workers and consumers can serve as an important entry point for understanding broader issues of social justice and labor within the food system. Participants also discussed how well-planned courses could enable students to work directly with labor campaigns to support community-organizing efforts. Finally, roundtable participants identified ways that campuses can be spaces for organizing campaigns and engaging students and the university community more broadly. Beyond teaching, some academics are finding ways to engage students as activists and encourage them to get involved outside the classrooms. Encouraging students to see themselves as part of the food system's labor struggle has helped many academics teach and engage students on these issues.

Laura-Anne Minkoff-Zern (LAMZ): *In order to build the labor movement, we need to bring questions around labor into the larger food systems discussion that's growing on campuses, and draw on the increasing interest in food, environment, and sustainability more widely. Developing and teaching a course specifically focused on labor across the food system has provided me an opportunity to think outside my own research on farm labor, and to look more broadly at the food system. I'm also finding ways to discuss labor within my other food courses, so as to not compartmentalize the relationship between labor and food to one or two focused classes.*

We need to ask how to engage students as activists and scholars, questioning labor injustices in our food system. We must work on finding ways to make food labor issues

actually relate to their lives. I teach students to think critically about social difference in a food systems context. When you talk about labor, you're inherently talking about race, class, gender, and other forms of difference. It is often a new way for them to grapple with food issues, and that's often challenging for students. I have been pleasantly surprised to see the ways that students have pursued this challenge on a personal level. When we talk about labor injustices and labor organizing, we're challenging deeply ingrained power structures at individual and institutional scales.

The growing popularity of local, organic, and sustainable food pose additional levels of complexity, but provide other important entry points through which students can engage with labor.

Amy Coplen (AC): *Most food movement efforts valorize the farmer and the chef who are predominantly white and male and devalue all of the racialized and gendered hands, bodies, and minds that do the bulk of farm-to-table labor. A UNITE HERE! organizer in Portland tells a story of one worker who talked about how her employer was really concerned about sourcing cage-free eggs. The employee asked, "What about our cages?" I think this story speaks to the fact that sustainable food movements are not concerned with the welfare of the workers. This is a theme that I organize my class around in order to interrogate the contradictions of sustainability, expose labor exploitation, and also support the efforts of organizers and activists and food workers in Portland.*

On the first day of class, we were doing a round of introductions and many students said, "I don't know anything about food labor, but I'm really excited to learn more." When we dug in a little deeper, I realized that the vast majority of them had worked or were currently working in the food service industry as dishwashers, servers, or prep cooks. The fact that they were unable to see their experience as relevant is evidence of how devalued and invisible food labor is. The students' tendency is to celebrate foodie culture, so taking a critical approach has been difficult for some of them. But half of our students are first-generation college students. Most of them receive financial aid. A lot are working part-time, a lot of them full-time. I'm trying to encourage students to draw on their own experiences as food workers, as meal planners, as grocery shoppers, as home cooks, as food stamp recipients, as students eating in the dining hall, and of course, as eaters in general, to understand the broader

political economy of the food system and low wage labor. I'm also trying to convey to them that capitalism relies on the invisibility of workers and if we can bring their struggles to light, it's not only the first step to changing that, but it's also in and of itself a radical act.

Bringing practice to theory empowers students to see the ways in which these injustices are both institutionally reinforced by the food system at large, and being resisted by labor activists and organizations.

LAMZ: I try to get my students to think about labor issues in real-life terms, not just using scholarly literature, but also activist publications—and there is a lot of great work out there. I provide students with a theoretical framework that gives them some tools to think about these issues and combine that context with practical examples. For example, they read Marx on the production of the working class and then an article by Joann Lo on organizing food systems workers. I then ask them to make connections between the theory and practice.

Bringing labor organizers into the classroom (in person or virtually) is another way to make these connections and allow students to “actually hear those voices.” As Laura-Anne Minkoff-Zern further explains, another way to make labor “feel real to students is to connect them to what is going on locally... It is important for them to understand that food labor injustices are not just happening far away in the fields—it's all around them,” whether the nationwide Fight for \$15 movement or the struggles of food workers on university campuses. Minkoff-Zern gives an example:

We partnered with the Central New York Workers Center to organize a showing on campus of the film Food Chains, which focuses on farm workers in Florida and California. Afterwards, the workers who attended were inspired to stand up and talk about their lives and how their experiences in New York paralleled the experiences that they saw in the film. The event provided an opportunity for our students to organize a chapter of the Student Farmworker Alliance. There's an incredible amount of excitement on campus, coming from the students. We just needed to introduce the issue and now they're running with it.

Many of the panelists provided concrete examples of and reflections on how to engage students in the “real world” of labor injustice and labor action.

AC: I put together an event called “Working for Food Justice” and invited local organizers to come and talk about their work to connect students and build collaborative relationships. About a week before the event, I got a call from a labor organizer who had heard about the panel and alerted me to a struggle that was happening on my campus, which I didn't even know about. Several of the university's food service workers attended the event and took the time to educate students. This was an amazing opportunity to start connecting students to the struggles of food workers on their own campus.

As these comments illustrate, pushing the boundaries of academia is both necessary and fruitful for pursuing deeper and contextual understanding and for creating movements for change concerning labor in the food system. By thinking outside traditional academic constraints in their research, teaching, and student engagement, panelists identified opportunities for positive collaborations, which highlighted the strengths of academic and activist collaborations.

Some Recommendations for Fostering Collaboration

Building on the successes and challenges of these examples of collaborative partnerships between activists and academics focused on food and labor issues, we conclude by highlighting five key recommendations that emerged from the roundtable discussion.

Connect to Personal Experience

The first recommendation is the importance of connecting to personal experience by making food and labor issues visible—something in which we are all implicated. While this does not directly address systemic issues, it creates a foundation for further action and research. This is not a stretch, according to Felipe Tendick-Matesanz: “Everybody touches this industry in some way, shape, or form.” This sentiment was echoed by a number of speakers.

AC: *I've had students say, "I just realized that I've been a victim of wage theft. I had no idea, but that's happened to me." They didn't understand it at the time. When it finally clicks for them that what we're reading about is very relevant to their experiences, it is an interesting turning point.*

JL: *If we're trying to highlight a campaign of workers' stories, then it's helpful to have interviews with workers. That way we can show examples of minimum wage workers and why we need to raise the minimum wage.*

But it is also important to connect these stories to the bigger picture.

FTM: *Most likely many of your students work in the food industry in some way, shape, or form. Recognizing this was very profound for me, and then I realized that it could be a way for impacting others. It may not speak to everybody's experiences, but for me, it was a way to understand what was going on in the world in a very different way than just reading about it. Stories are very important, but to transform things, we need statistics and analysis to go with them. So it's combining the stories with the research that has really helped catapult our work forward.*

Build Trust

A second recommendation is the need to build long-term relationships of trust between academic and community partners.

FTM: *It's all about relationship and trust building that comes with time. Our organizations have struggled with a lack of capacity to do all the things we know we need to do and to work in collaboration with academics. So, for the long term, we need to build trust together. Let's begin that now! Our organization doesn't just represent workers, but also employers and consumers. The goal is to challenge the powers at play and create better wages and working conditions across food systems.*

Indeed, trust can take many years to develop, so collaboration must be seen as a long-term project. In the words of one audience member, "It would be nice to see academics that have a career relationship with the labor sector and with particular nonprofits. Like a biologist that has studied a specific species of frog for 50 years, we need academics that have worked in partnership with a

labor group for that amount of time."

Find Common Strategies

A third recommendation that emerged is to build a strategy of solidarity based on the common concerns that academics, students, and workers face.

FTM: *The reality is that we are all in the same boat. Actually, a lot of the struggles that people are going through in academia are very similar to ours as food workers. That's why I always start out by saying, "We're all workers." From there, we can work together to get to larger societal answers that we're looking for because we're all being undervalued. It's not just in our industry. The reality is that labor in general is undervalued across the board, so we can all come together on some focused topics and move forward.*

Build on Existing Work

A fourth recommendation focuses on the need for collaborative partnerships that build on existing community efforts, and do not attempt to "reinvent the wheel."

AW: *A lot of community organizations are faced with having to put out day-to-day fires, and that can make it difficult to meet the interests of academics in this context. Thus, partnerships work well in situations where the community partners wouldn't otherwise be able to attend to the project. That is, when it's not academics replacing community partners. Often there's a temptation in academia to create brand new packages of de novo projects that look really appealing to granting agencies, but this can duplicate (or undermine) the work and the existing relationships that community organizations have already built.*

Recognize and Reciprocate

A fifth recommendation is that it is important, when working with community organizations, to recognize power differences and to find ways to reciprocate the time and energy put into collaboration.

LAMZ: *When we ask organizers and activists to come to our classrooms and take part in our class projects, we need to think about the ways that work is going to be valued and reciprocated. We must be aware that we are asking community partners to do extra work. As these courses develop, I'm going to be increasingly drawing on activists to*

give their time to my classes. My program benefits from this. This is an institutional problem because whether you have funds to pay them or not may not be the choice of the individual scholar. We need to talk about ways to build institutional alliances that do work in both directions.

We recognize that these five recommendations are not completely new and, in some cases, have been echoed in the broader literature on community-university partnerships. Nevertheless, the fact that these experiences remain prominent (and are repeated in different sectors) highlights their importance and the need to continue to explore them. Furthermore, these insights have yet to fully shape what such collaborations could and should look like. Speaking more directly to the theme of food and labor, finding ways for food scholars to better support the work of labor activists across food systems and build collaborations to strengthen food movements is a vital step forward. The coming together of academic and community-based practitioners in the roundtable session and documenting the discussion is part of that process.

In sum, the ideas expressed in this reflective group-essay highlight the fact that despite significant gaps in the way that food movements are addressing labor issues, community-campus collaborations present an opportunity for building alliances to foster food justice. Collaborations are already taking place both within and outside the classroom, led by academics and community groups alike. When they work together, outputs can be more meaningful. But more important, the process of engaging in collaborative and critical research can be transformative for those involved. Building partnerships takes tremendous time and energy, but when done well can offer new approaches to age-old problems. While there is extensive research on understanding what engagement looks like when it is effective, there is less understanding of how to actually make engagement happen. We offer these experiences and five recommendations—connect to personal experience, build trust, find common strategies, build on existing work, and recognize and reciprocate—as a contribution to community-campus collaborations aiming to create more socially just food systems for all. 

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“We just have to continue working”: Farmworker self-care and heat-related illness

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Abstract

Heat-related illness (also called heat illness) is a recurring and avoidable condition that results in multiple deaths in California farm fields every year. We conducted five focus groups as part of the California Heat Illness Prevention Study (CHIPS) in Fresno, California, during the summer of 2013. We used qualitative coding methods to analyze focus group transcript data with consideration of

workers’ behaviors and beliefs, workplace safety training experiences, employer–employee relations, and workplace conditions and organization. Discrete and complex factors related to worker self-care were identified, and suggest that heat illness cannot be viewed as simply a biomedical or behavioral issue, and that preventive health interventions in agriculture also need to take into account power and control structures existing in

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Disclosures

Michael Courville worked with the California Institute for Rural Studies in 2014 through a consultancy (Open Mind Consulting) to conduct some data analysis presented in this paper. He later became a direct employee of CIRS in the spring of 2015, during the manuscript development and submission period.

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the industry. Findings indicate that prevention plans should be guided by strategies that integrate worker control with work-site organization and employer relations, as opposed to strategies that focus exclusively on traditional modes of training to advance prevention.

Keywords

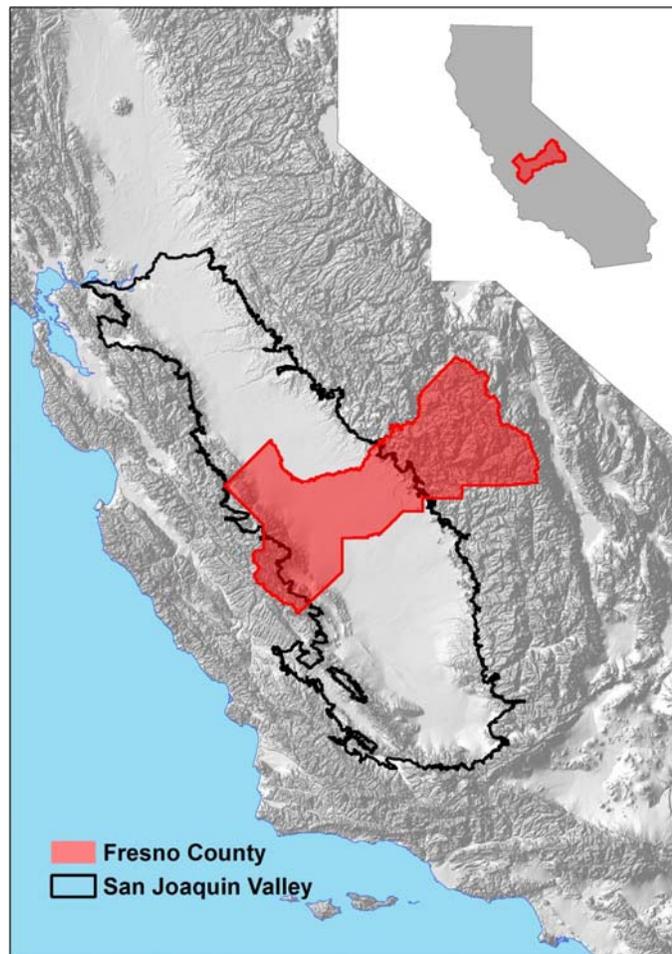
California agriculture, safety training, heat illness, heat-related illness, farmworker, qualitative analysis, wage labor, worker control

Introduction and Literature Review

The major environmental risk factors for heat-related illness (HRI)¹ or heat illness are known, as are many personal risk factors.² Regulations have been enacted to help protect workers, yet deaths and significant levels of HRI still occur, particularly among agricultural workers. HRI is an area of agricultural worker health and safety that has not been adequately addressed by the research and outreach community. In the U.S. from 1992 to 2013 (the most recent year of reporting) at least 689 workers have died and 56,114 have been injured severely enough to result in days away from work due to HRI (Centers for Disease Control and Prevention [CDC], 2008; U.S. Department of Labor, Bureau of Labor Statistics, n.d.). Agricultural workers are by far the most severely affected group of workers, with an annual heat-related death rate for crop workers at 0.39 per 100,000 workers, compared with 0.02 for all U.S. civilian workers (CDC, 2008). California has the largest population of farmworkers in the nation, with an estimated range of between 350,000 and 400,000 individuals engaged in field labor.³ California's San Joaquin Valley is home to a large proportion of the state's agricultural workers (Villarejo & Runsten, 1993; Walker, 2004), who work in extremely high

¹ There are differences between what symptoms and physical conditions constitute heat illness and heat stress. The more general "heat-related illness" is used to refer to a range of symptoms and conditions that can result as an effect of exposure to extreme heat and sun for long periods of time.
² The environmental factors include exertion in hot weather outdoors; sudden exposure to hot weather; prolonged

Figure 1. Map of California with the San Joaquin Valley Outlined and Study County in Red



Map created by Patrick Huber.

temperatures (see Figure 1). From 2005 to 2009 the California office of the Occupational Safety and Health Administration (OSHA) received reports of 93 cases of severe HRI among farmworkers, a timespan that included a spate of three deaths during the summer of 2006 (California Department of Industrial Relations, 2007). Additionally, the rate of heat-related fatalities increased over the past decade. It is likely that extreme heat events will

exposure to the sun; and exertion under high temperatures indoors. The personal risk factors include age (i.e., very young or over 65); use of certain medications; and existence of chronic diseases such as heart or lung disease.

³ See Mines, Ward, and Schenker (2000) for a good discussion of the challenges related to farmworker enumeration.

continue to increase with global climate change (California Department of Public Health, 2008; McCarthy, Canziani, Leary, Dokken, & White, 2001).

The California Heat Illness Prevention Study (CHIPS) was initiated in 2013 in response to the ongoing impact of heat on farmworkers. The goal of the CHIPS is to understand the physiological responses to environmental heat and physical work among California farmworkers, and the socio-cultural influences that affect the workers' behavior, which may increase their risk of suffering from HRI. Ultimately, information gained from the study will lead to improved HRI prevention strategies for both the employers and employees on farms. Understanding the relationship between how a worker identifies a potential workplace health risk, and then takes steps to prevent that risk, are topics of concern and debate within the literature on worker health (Burke et al., 2006; Cohen & Colligan, 1998; Lam et al., 2013). A study of HRI among North Carolina farmworkers by Mirabelli et al. (2010) identifies specific factors that contribute to effective prevention and avoidance of HRI, but it also raises questions about persistent HRI incidences that occur despite farmworker knowledge of prevention techniques.

California is an excellent case study for understanding the complexity of HRI occurrence and prevention. California currently has the most stringent regulations protecting outside workers from HRI, including specific requirements for shade, water, and training (California Heat Illness Prevention Regulation, 2010).⁴ Yet there are still over 200 heat-related workplace illness claims annually in California, and this number increases significantly during years of severe heat episodes. Considering the national incidences of worker fatalities due to heat stress (CDC, 2008; Rao, 2007; U.S. Department of Labor, OSHA, n.d.-a), it appears that workers exert themselves in the fields beyond healthy limits, even though intervention strategies are in place, including workplace training (Stoecklin-Marois, Hennessy-Burt, Mitchell, &

Schenker, 2013; U.S. Department of Labor, OSHA, n.d.-b). This poses questions about the assumptions that undergird current HRI prevention strategies and regulatory practices in California. The current emphasis on training, learning and regulatory protection to address HRI means the locus of change for workplace safety is vested in voluntary worker action and employer compliance (U.S. Department of Labor, OSHA, n.d.-c).

CHIPS provides an opportunity to explore the motivations, actions, and articulated beliefs of farmworkers in relation to HRI, and to better understand how they receive information from their employers and fellow workers to reduce harm at work. Research on worker education related to risk reduction has focused on the importance of training and teaching methods, finding that "training involving behavioral modeling, a substantial amount of practice, and dialogue is generally more effective than other methods of safety, and health training" (Burke, et al., 2006, p. 315). This body of literature on occupational training directs attention to how workers learn, what they do with new information they receive in workplace safety trainings, and how they understand the origin and causes of illness (Burke, et al., 2006; Cohen & Colligan, 1998). However, looking only at the effects of training on individuals does not help to explain or illuminate the persistence of HRI within the farmworker labor force over time.

Investigations of worker subjectivity and group relationships have found that the reproduction of worker identities and behavioral choices help explain the persistence of compromised worker health and well-being over time. Research has found that subjective views influence and shape the behaviors and choices of workers, as well as their role in the labor force (Duke, 2011; Georgakas & Surkin, 1999; D. R. Holmes, 1989; S. M. Holmes, 2013). Additionally, membership within particular groups based on race (Duke, 2011; Mines, Nichols, & Runsten, 2010), ethnicity (Landrine & Klonoff, 2004), gender (Martin, 2003), and citizenship

regulations, which were still in effect during the period of data collection and analysis.

⁴ The 2010 regulations were amended in May 2015, shortly before this paper was submitted for publication. The findings in this paper were analyzed in consideration of the earlier 2010

(Martin, Fix, & Taylor, 2006; Thomas, 1985) also shapes both self-care behavior and overall workplace dynamics in unique ways. These findings shed light on the social contexts facing workers, pointing to structural relationships that bound the range of worker agency. Moreover, the everyday contexts and frameworks that workers draw upon to make sense of their world have social and material dimensions within agricultural production and require explanation (Knights, 1990; Mann, 1990; Thomas, 1985).

Social scientists debate the nature of agricultural production (Mann, 1990; McMichael, 1994) and the persistent forms of farm labor in highly industrialized societies like the United States (Majka & Majka, 1982; Martin, 2009; McWilliams, 1935). Despite significant debates, most social scientists agree that agricultural employment remains at low wages and with fewer worker protections than those found in other sectors (e.g., manufacturing) (Aldrich, 1997; Guthman, 2004; Mendeloff, 1979; Walker, 2004). During negotiations to approve the Fair Labor Standards Act of 1938, President Roosevelt agreed to concessions to Southern Democrats in the legislature in order to improve conditions for the majority of workers in the country (Samuel, 2000). Farmworkers were excluded from this agreement in order to achieve the goal of fair standards for the majority of low-wage American workers. Such concessions are complicated further by the highly stratified relations of production and workplace management found in agriculture (S. M. Holmes, 2013; Lobao, 1990; Wells, 1996). Taken together, the lack of adequate workplace protections and stratified workplace management focus attention on the dimensions of farmworker behavior and relationships within the organization and the structure of the workplace itself.

Thomas (1985) found evidence that employers in agriculture use direct and indirect means of control to increase worker productivity, and that this extends to choices they make related to workplace organization. Relationships between such

types of control in workplace settings have been found to negatively affect worker health (Karasek & Theorell, 1990; Theorell, 2003). Such control efforts mitigate conflict between workers and employers (Knights, 1990; Knights & Willmott, 1990; Thomas, 1985) and speed up the pace of work at the expense of worker health (Fairris, 1998; Grzywacz et al., 2014). Westerlund et al. (2010) found that management style also affects the well-being of workers, pointing to further consideration of employer relations as another variable influencing worker self-care.

Applied Research Methods

The findings we present are from a systematic review of focus group transcripts gathered as one component of a larger study for CHIPS on HRI among farmworkers. Data collection started in the summer of 2012 and will continue through 2016. Purposive sampling was used to identify and recruit focus group participants. Staff from local community-based organizations serving farmworkers in the Fresno area recruited participants through the use of a screening tool that ensured all participants had at least two years of experience as a farmworker in California and were over 18 years of age. Candidates were then chosen to participate if they worked in California fields within the past three years (i.e., between 2011 and 2013) and had experience working outside during daylight in high summer temperatures (i.e., June through September). A team of experienced, multilingual English/Spanish/Mixteco⁵ moderators facilitated five focus groups between June 13, 2013, and August 9, 2013, with a total of 48 farmworkers.

Two groups were administered exclusively with women, and two were administered exclusively with men. The remaining group was mixed gender. The focus groups were conducted in nonwork settings administered at Fresno-based nonprofits (one that specifically serves indigenous people from Mexico, and another that specifically serves farmworkers). Findings from earlier studies of heat illness among outdoor workers informed

the last two decades. For a good discussion of indigenous Mexican communities and languages, see Mines et al., 2010.

⁵ Mixteco is an indigenous language spoken by the Mixtec people of Mexico. The number of Mixtec working in California agriculture has grown steadily over

focus group question development, resulting in three broad categories of inquiry: worksite experiences and behaviors; individual knowledge of HRI symptoms and treatment; and routines both before and after work. We then developed and organized open-ended questions into a moderator guide to explore specific beliefs and behaviors related to hydration, resting in shade, and training around HRI.

All focus groups were recorded on audio equipment. Written transcripts were generated from these recordings, first in Spanish and then translated into English by trained research assistants. The majority of recordings were in Spanish, but for the sessions conducted in Mixteco, recordings were translated into Spanish before finally being translated into English. Five sets of transcripts, prepared as electronic documents, were then reviewed for technical accuracy, general completeness, and overall content. Minor data cleaning was performed on the transcripts to address technical errors and language and/or word choice decisions made by the transcription team.

We used qualitative analytical methods to conduct a content analysis of the transcripts. A process of open coding was undertaken through written note-taking, in conjunction with the literature review presented above. We pursued a variable-oriented analysis, given that the design of the focus group emphasized certain variables through the use of a moderator discussion guide. Basic descriptive statistics related to the Fresno focus group cohort (Cohort) were also tabulated, to complement the transcript coding and to further contextualize the initial findings.

The open coding yielded a set of holistic codes that captured high-level themes and recurring ideas for further investigation. The research team then discussed the holistic codes before a second round of axial coding was conducted using electronic code notations in Microsoft Word. A process of analytic memoing and variable mapping then followed the axial coding. A second analyst conducted an additional review of the transcripts using the axial code list in order to assess intercoder reliability. No codes were eliminated or added as a result of the secondary review. Finally, we organized the codes using a series of displays, tables, and

concept-mapping techniques to identify patterns, trends, themes, and any clustering of variables within the coded transcripts.

Results and Discussion

Participant Profile

Members of the Cohort consisted of individuals who live in the area and work as farm laborers in Fresno County ($N=48$). Most participants had worked as farm laborers in the United States for more than two years ($n=41$), bringing many years of experience in the field to bear on the subject of HRI. Most of the participants referred to being residents of Fresno County or the greater San Joaquin Valley (see again Figure 1).

I have been here for eleven years here, and since I arrived I worked in a factory for four years, and for six years I have worked in the field, and right now I'm picking melons. (Participant #8, Farmworker Focus Group, August 8, 2013)

We arrived here in '99, so we have been working here for about eleven, twelve years. I work in the field, I work on grapes, pruning, defoliation of peaches. I also work in construction. I have been working in California for about twelve years. (Participant #5, Farmworker Focus Group, June 14, 2013)

Cohort responses reveal their experiences not just as farmworkers, but also as local residents within a larger community network doing similar work in agriculture over long periods of time. Cohort members work on a variety of tasks in the fields. Even though some participants had stints performing farm labor outside of the San Joaquin Valley, they usually return to engage in similar work each year.

I have worked in the field for 15 years. I do all types of work; here [in Fresno] I pick grapes, I do the rollings [of the grape leaves]. I pick up the raisins, cleaning the raisins. When that gets done, I take a break

and then the pruning season starts, we tie the vineyards. At the end of the pruning season, we take another break and then the leaves start....Then, we also go to Oregon, to pick strawberries, blackberries, and blueberries. We go there a two-months season and then we come back here [to Fresno]. We just came back from there. (Participant #4, Farmworker Focus Group, August 9, 2013)

While there were no specific questions in the moderator guide to elicit participant ethnicity or race, the moderator asked participants to identify “where they were from,” and this can serve as a proxy for ethnicity.⁶ Responses to this question,

Table 1. Select Attributes of the Fresno Cohort (N=48)

Attribute	Number
Gender	
Male	30
Female	18
Language^a	
Spanish	25
Mixteco	23

^a Based on the language used in the administration of each focus group.

Table 2. Most Recent Workforce Activity

Position	Number
Field Work/Harvest	41
Maintenance and Irrigation	1
Supervisor	2
Packing and Sorting	2
Processing/Factory	1
Trucking/Shipping	1

⁶ The moderators asked a variation of the following prompt at the start of each group: “Tell us your name, where you are from—what village or state you are from if you are from Mexico, or if you were born here, your city.”

⁷ Some participants identified the Mexican state or village where they lived before coming to the United States to work in agriculture. While this level of information about origin has value to understanding some of the pathways and, perhaps,

combined with the languages of focus group administration, indicated that the Cohort was 96% Mexican (one did not answer and one stated he was from Texas), with about half of the participants identifying as indigenous peoples from Mexico⁷ (see Table 1). The majority of the participants described their experiences as hired farmworkers on a seasonal basis within particular crops or crop harvest cycles (see Tables 2 and Table 3). Family experiences were not discussed in great detail, but the data also suggest a regular home life within California for most, if not all, of the participants. Some Cohort members had families working with them in the fields, including young children. Several participants worked outside of California, with the state of Washington as the most frequently mentioned location.

Finally, the structure of payments, or pay schemes, for the participants helps give context to the relationship between Cohort members and their various agricultural employers. Table 4 summarizes the forms of these payment relationships as identified by the participants (some participants identified more than one relationship).

Organization of Findings

We present findings first on the discrete factors that shape individual behaviors, and then posit a more direct relationship between worker behaviors and HRI: drinking and eating habits; self-care routines and patterns; worker knowledge and perceptions of HRI; worker training and education; and learning and worker beliefs. Analysis of the more discrete factors yielded a complex model of factor clusters, which then served as a dynamic conceptual tool for interpreting our findings on individual worker behaviors and HRI. A noted divergence among workers with regard to gender-based perceptions is also explored within this section of the paper. Following the discussion of

cultural variability between workers, the qualitative nature of this analysis makes these references less reliable as indicators. For this reason, a higher level of categorization was used to avoid speculation about the participants’ specific regional or community affiliation. For a good discussion of regional and village-level factors related to farmworker experiences in California, see Mines et al. (2010).

Table 3. Participant Crop and Harvest Experience

Identified Crops		
Fruit	Vegetables	Tree Nuts, Grains and Fibers
Apples ✓	Broccoli	Almonds
Blueberries ✓	Garlic	Alfalfa
Blackberries ✓	Tomatoes	Cotton
Cherries		Other grains, not specified ✓
Grapes		
Melons		
Mandarins/Oranges		
Peaches		
Plums		
Raisins		
Strawberries		

Note: A checkmark (✓) denotes indication by participants that these crops were harvested outside of California.

the discrete factors, we then present findings related to overarching structural patterns and trends that help explain shared experiences across the larger Cohort.

Drinking and Eating Habits

One of three tenets in the current OSHA campaign to prevent heat stress is a reminder for workers to drink water, in conjunction with periods of rest and the use of shaded areas (U.S. Department of Labor, OSHA, n.d.-c). Hydration during prolonged periods of sun exposure and high temperatures is an accepted practice for reducing and avoiding HRI. This guidance is based on the assumption

that by encouraging workers to drink more water during the workday, incidences of HRI will be reduced.

Transcript data were coded for patterns related to water consumption, and individual beliefs about the effects of drinking water throughout the workday. Cohort members generally understood the benefits of drinking water while working in the heat; however, there was a great deal of variability in actual hydration practices. This variability and the range of beliefs about the properties and impact of water on the body present a more complicated view of

daily Cohort behavior. It was not possible to gauge the frequency of water consumption in the field,⁸ although it was clear that Cohort members drink a range of beverages before, during, and after work. Water is least associated with a desire to “cool down” or “stay healthy.” Instead, the coded data reveal beverage consumption patterns that exacerbate symptoms and actually advance the likelihood of HRI. Table 5 illustrates five primary participant motivations for consuming beverages throughout the workday. The concept of hydration, or the recurring need to consume water for optimal health and body functioning, appears very rarely in Cohort discussions. This is significant

Table 4. Cohort Employment Status and Payment Schemes

Employment Status, Pay Scheme	Common Cohort Description
Contract, Piece Rate Specific agreement to produce or deliver a certain number or amount of harvested produce, by weight or volume (e.g., boxes, buckets) with no obligation to pay for actual time worked, and no ceiling on how much can be earned unless otherwise stipulated. Under such an agreement a worker is still entitled to a minimum wage floor.	Piece, Piece Rate
Contract, Hourly Wage Governed by state wage and hour rules regarding breaks, meal periods, and payment for time worked, regardless of any productivity measurements.	Hourly
Salary, Hourly Wage Regular, recurring payment based on a set amount of weekly hours and time worked, divided over a set number of pay periods. Governed by state wage and hour rules regarding benefits, insurance, meal periods, and other formal accounting rules.	Work for the company

⁸ It was clear upon our initial queries related to quantities of water consumed during the first focus group administration that Cohort members did not have a consistent way to convey actual measurements by

volume. This resulted in significant variability in the answers received. As a result, these questions were removed from the moderator guide in subsequent focus group sessions.

given the goal of frequent hydration encouraged as part of most heat-stress prevention outreach and training, including the OSHA campaign. Moreover, Cohort notions of hydration are more prominently linked with drinking beer or soda (see Table 5).

While looking at motivations for beverage choice, a larger trend began to emerge in relation to how workers describe cause-and-effect relationships between water consumption and regulation of body temperature, and between water consumption and illness. One participant from the Cohort described a relationship between water temperature and illness this way:

If the water is too cold and we are hot, we get sick. It is good to drink a little bit, because if we are very thirsty and drink a lot, we may get sick. But the water should be a little cold, because if it is hot, it does not help to drink it. So if we noticed that it is cold, we should drink little by little and that is fine but [if] we drink too much at once, it is not good. (Participant #5, Farmworker Focus Group, August 9, 2013)

Many Cohort members also believe that shifting one's body temperature too rapidly could be dangerous and harmful to the body. This belief is expressed most often in relation to consuming

Table 5. Motivations and Choices for Beverage Consumption

Motivations	Beverages Consumed ^a
Energized, feeling tired	<ul style="list-style-type: none"> • Energy drinks • Beer • Coffee
Quench thirst	<ul style="list-style-type: none"> • Beer • Soda or Kool-Aid • Water
Regulate body temperature, cool down	<ul style="list-style-type: none"> • Beer • Soda • Sports drinks (e.g., Gatorade)
Feeling sick	<ul style="list-style-type: none"> • Water
Encouraged, directed by employer	<ul style="list-style-type: none"> • Water

^a Ordered by frequency of participant identification (highest to lowest).

cold water and exposing the body to cold water when one's body temperature is elevated, as in showering or putting a soaked towel on the head:

For me in my case, it is bad because when it's [the water is] very cold and the temperature is too hot, because your body does, how do you say it, it goes haywire. When the temperature in your body is very hot then you throw something very cold on it, it breaks. (Participant #5, Farmworker Focus Group, July 5, 2014)

A similar belief was also expressed, though less often, in anticipation of a changing external temperature or climate. For example, a temperature change for participants once they left home (cool) and arrived at work in the fields (hot) was viewed as dangerous to their health. Similar assertions were extended to a sudden move from hot outdoor temperatures to a place with air conditioning.

Only one pattern emerged around food consumption within the Cohort. Several participants identified eating melons (watermelons) as a refreshing food, one that can help to cool one down. The highly refreshing nature of the fruit was emphasized without reference to its water content (92%). The majority of participants shared that they drink coffee in the morning before leaving for the fields, but only one participant gave any indication that something was eaten before reporting to work in the morning. Most packed lunches to eat later in the day and arrived at work on empty stomachs. Very few Cohort members reported drinking water before leaving for work. The dominant pattern of eating breakfast after reporting to work, combined with the preference for drinking soda or beer to cool down, only increases the likelihood that some farmworkers may start the day at an increased risk for HRI.

Descriptions of voluntary water consumption were limited and frequently conveyed as something you might do as a requirement of the job. There was also a recurring assertion among Cohort members that drinking water, in and of itself, could make someone sick. This was especially true if workers were feeling overheated. Moreover, water temperature was identified as a factor in

exacerbating sickness. Concerns over taste (chlorinated flavor), odor (bad), and temperature (too warm or too cold) were consistently identified as rationales for avoiding drinking water. This was especially true for employer-provided water on-site in a cooler or jug. There was no consistent pattern, however, related to specific attitudes or beliefs about water provided on-site. Instead, a more consistent belief about water temperature, in general, was expressed. Cold water was reported to make people feel worse, including creating nausea. The motivation groupings found in Table 5 provide some additional architecture for interpreting this aversion to drinking water. Water was more frequently associated with negative experiences (feeling sick), or an external impetus (encouraged or directed by employer), possibly explaining some of the voluntary avoidance during the workday by Cohort members.

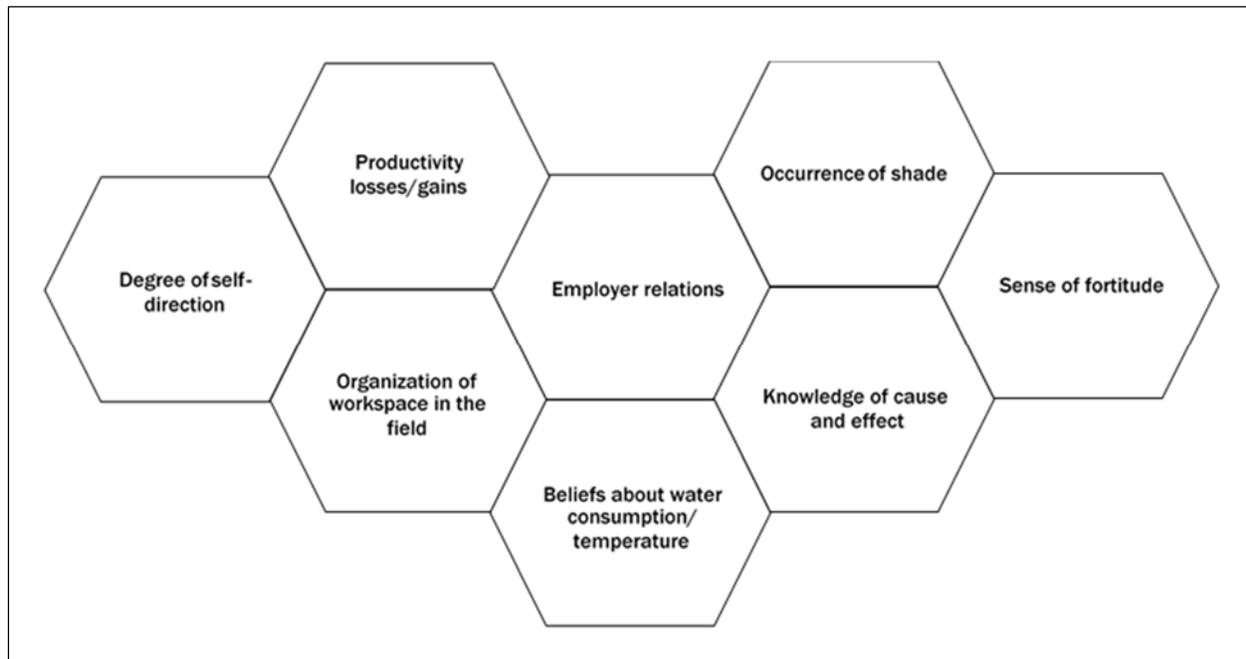
The findings on water and temperature change present a significant puzzle: the general acceptance within the Cohort that a beer, usually consumed

cold, does not prompt the same concern about negative body reactions as does the consumption of cold water. Instead, cold beer is sought out when there is a desire to quench thirst, get more energy, or reduce exhaustion. This initial finding pushed our analysis to explore the linkages between such beliefs about water and other variables that may be shaping workers' behavior patterns related to water. Cohort members discussed a catalogue of behaviors that ultimately result in water avoidance. This proved fruitful in turning the analysis toward a clustering of factors that might better explain any choices to hydrate during the day and engage in general self-care.

Self-Care Routines and Patterns

Our data analysis was especially robust around the notions of self-care, which are defined as elective efforts to take rest breaks, seek shade, modify dress, and drink water. "Self-care" evolved into a larger code family that included care efforts that occur outside the workplace, at home, and even

Figure 2. Eight Factor Clusters Related to Self-Care



The honeycomb presentation helps to convey the associational relationships and complementarity of the eight factor clusters related to self-care. Each factor cluster can align with any other in a self-care decision. They are not grouped in any fixed position. Just as in a honeycomb structure, factor clusters are tightly connected together when shaping a self-care decision.

during transportation to and from work. Self-care codes were the most commonly applied during the coding process, reflecting the degree to which participants discussed or identified these activities in relation to multiple prompts and a range of questions. The coded passages began to form a web of relationships that reveal a set of factor clusters that can help provide deeper understanding of the specific self-care actions and efforts participants describe or identify. This also points the way toward a better understanding of the contradictions of water consumption and temperature presented in the section above.

There are eight cluster factors: *Beliefs about water consumption/temperature*, *Degree of self-direction*, *Employer relations*, *Knowledge of cause and effect*, *Occurrence of shade*, *Organization of workspace in the field*, *Productivity gains/losses*, and *Sense of fortitude*. Figure 2 presents, in no particular order, the eight factor clusters that combine in varying ways to shape the calculation of personal decisions to engage in self-care.

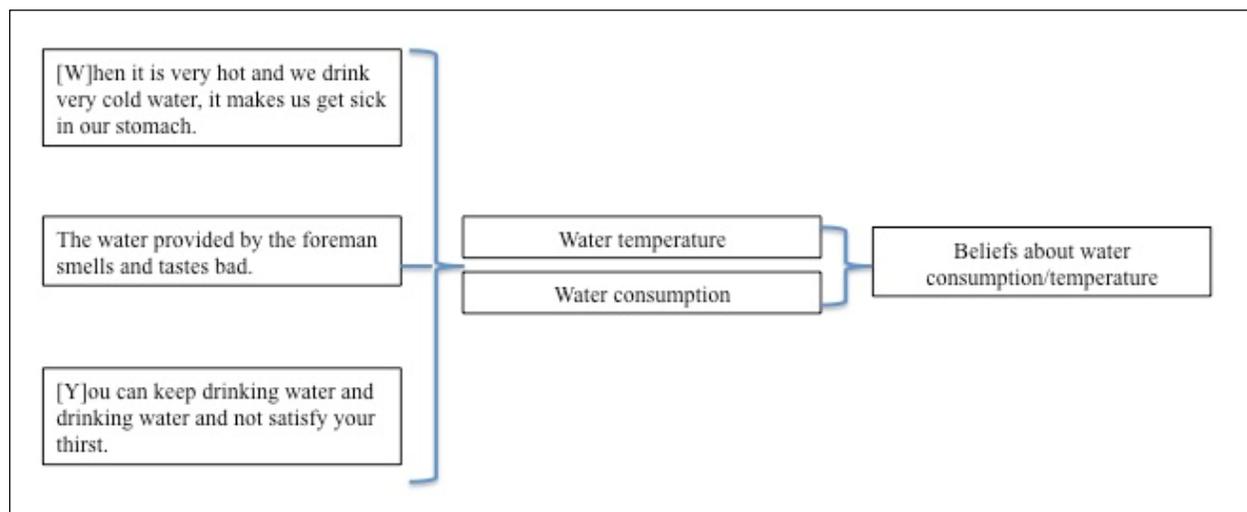
Each factor cluster was identified based on patterns of individual statements from participants

and recurring themes within the focus group transcripts, threaded together by continuity in topic or subject. Consider, for example, the pattern that emerged to form the factor cluster *Beliefs about water consumption/temperature*, presented in Figure 3.

The factor clusters help conceptualize the many different influences and motivations that interact to shape Cohort behaviors and actions related to HRI prevention, safety interventions, and ongoing learning. Some factor clusters, such as the Occurrence of shade, capture the geographic and physical differences by harvest site and with regard to field terrain. Many participants noted that grape harvests, for example, provide some shaded areas under the vines—though not sufficient protection based on California law—while other crops such as strawberries are harvested in open fields without any trees or structures that cast a shadow. This factor cluster also reflects reported variability among employers on the provision of shade protection, including Cohort reports that some employers encourage breaks under trees within view of the work site.⁹

Figure 3. Sample Factor Cluster Construction

Moving from left to right, responses related to participants' beliefs about water are categorized into two shared subgroups that ultimately form a factor cluster.



⁹ Several participants noted that at times there is shade or water on the periphery of the harvest or work site, under a tree, but that those trees can still be quite far away. Some locations were up to half a mile (.8 km) away, requiring a 10 to 15 minute walk. A couple of

these same participants noted that the walk alone—on loose ground—could be dangerous if they are already feeling dizzy or ill (Participant #4 and Participant #5, Farmworker Focus Group, August 8, 2013).

Cohort members described multiple patterns of interaction that point to the intersection of both worker agency (i.e., Sense of fortitude) and workplace structure (i.e., Organization of workspace in the field) in making self-care decisions. Some structural factors, such as Productivity losses or gains, cut across all self-care choices in a deep way. Participants frequently reported that they often predicate self-care decisions on this factor alone, as expressed by this Cohort member:

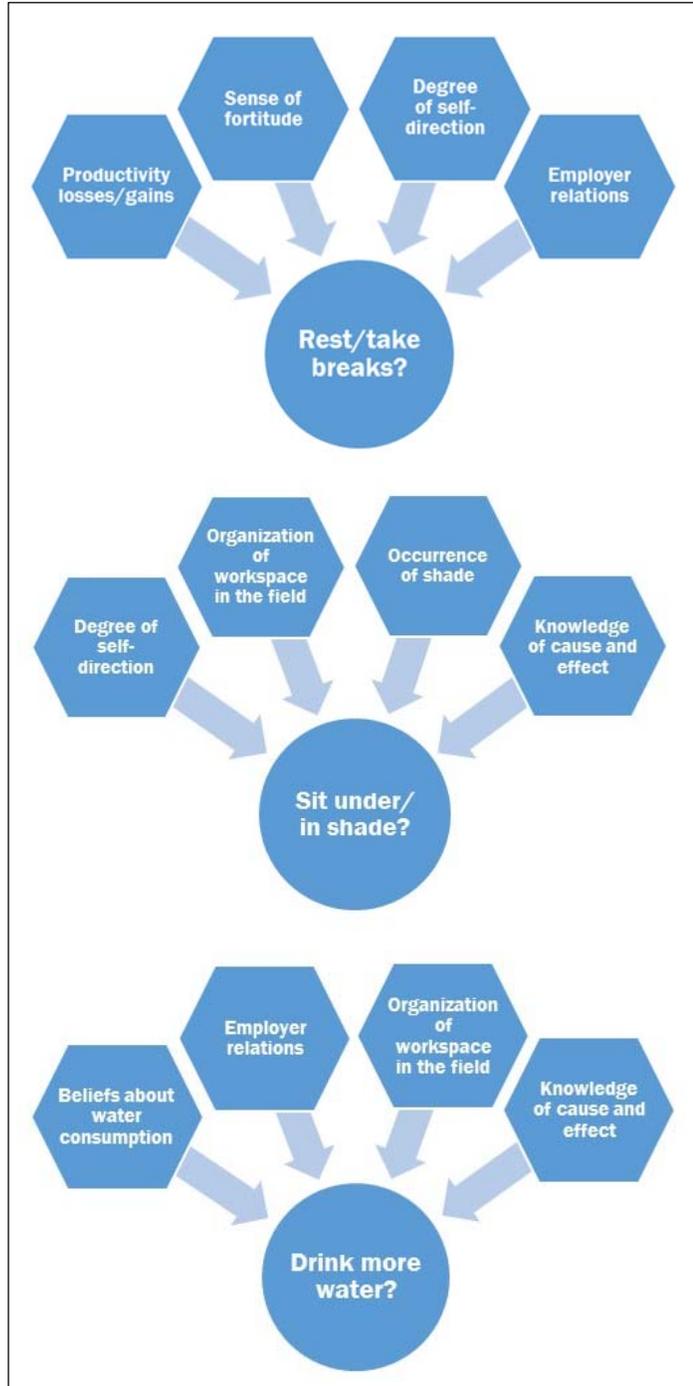
Yes, we just have to continue working, especially when it is piecework in order to earn more we continue to make our day. When we see that we have only earned 50 or 40, we have to continue to reach at least 100, and then we take it easy, if not, then we continue, but if we feel bad, then we take a break. (Participant #6, Farmworker Focus Group, June 14, 2013)

The factor clusters interact to shape worker choices in varying ways. Some, such as the consideration of piece rate described above by one participant, undercut the expressed desire to take a rest, even when there is a physical duress or awareness of HRI symptoms. Participants will assert their agency to “take a break,” and then immediately counter that potential to act by repositioning the salience of a more structural factor cluster, which then deters them from acting:

Yes, we continue working because we want to advance to earn what we are supposed to for the day, when it is piecework, we have to continue working, until we can’t handle it anymore. Even though the foremen place shades and ask us to drink water, they don’t know our feelings that we want to continue working to earn a little bit more money and we just rest in the end. (Participant #5, Farmworker Focus Group, June 14, 2013)

Figure 4. Select Factor Cluster Groupings

Select factor cluster groupings help illustrate how self-care decisions are shaped in relation to rest, shade, and water while working in the fields.



These agency-structure dynamics cannot be fully explored in this paper, but Figure 4 reflects

some of the more robust patterns related to the three primary self-care practices—rest, shade, and water—to further illustrate such dynamics.

Worker Knowledge and Perceptions of HRI

Participant discussions of HRI symptoms and its potential fatality generated a unique set of patterns related to both the knowledge of symptomology and personal beliefs about illness. Table 6 displays an inventory of the medically recognized HRI symptoms identified by Cohort members. Men and women expressed largely overlapping inventories of symptoms, but the frequency of some identified symptoms varied by the gender of focus group participants.

Although not recognized as symptoms by NIH, participants also associated the following with HRI: turning pale, heartburn, nose bleeds, flu, diarrhea, and pregnancy. Coding and conceptual mapping generated a more textured view of Cohort assumptions and beliefs about vulnerability to HRI and their own personal sense of fortitude. While clearly not a symptom of any illness by traditional standards of Western medicine, the mention of pregnancy by some participants was associated with a state of vulnerability or weakness. This, in turn, prompted a belief about susceptibility to HRI, or any illness for that matter. While less pronounced among participant women, there is still a sense that some people are just less healthy or more delicate by constitution. Women and young people, as a group, are identified as those more susceptible to illness. This is associated with their essential nature of being a woman, a young child, or an adolescent. At the same time, participants frequently describe HRI-susceptible individuals as those with a “weaker” constitution, or those “sick” with another illness

such as diabetes. This finding held true across all five focus groups. However, it is the exclusion of men as a group from such categorizations of “vulnerability” that is most striking across the focus groups, and it raises sensitivity to the ways that gender may shape and reshape the notions of prevention, vulnerability, and susceptibility to heat stress for this population.¹⁰ This finding also reinforces the role that a Sense of fortitude may play in shaping self-care decisions.

Perceptions by Gender

One interesting pattern of note is the gendered reporting of symptoms. In general, women describe early onset HRI symptoms, as well as a wider range of symptoms, from dizziness and

Table 6. Inventory of Identified Symptoms Related to HRI

Cohort Identified Symptoms ^a	Most Frequent Within the Cohort	Association by Gender
Blurry vision		
Body aches		Women
Chills		
Cramps		Women
Crying		
Dizziness	X	
Dry skin		
Excessive sweating	X	
Fainting or “falling out”	X	Men
Feeling bad		
Thirst		
Anger or short temperedness		Men
Headache	X	
Fast heartbeat		
No urge to work; fatigue		Men
Rash		
Sick to the stomach or vomiting	X	
Sunburn		Women

^a This includes only those symptoms documented by the National Institute of Health.

¹⁰ It is the omission of men in comparison to “women” and “youth” as a group of vulnerable individuals that was striking. Participants noted differences in behavior that they believed put individuals at risk (those who drink, those who eat poorly and are overweight), and

these individuals could be either men or women. The focus here is on the essential characteristics of groups, tied to a belief in a Sense of fortitude, in which some people are believed to just be “built” to work, while others are less naturally capable.

vomiting to cramps. Men, on the other hand, tend to identify later symptoms such as fainting or falling as the primary symptom or evidence of an illness. There were also a few references to women serving as supervisors in the fields (forewomen), from whom the participants indicate a more caring or vigilant approach to encouraging worker self-

care, especially drinking water while in the fields. This could be another indicator of gendered forms of symptom awareness and prevention.

Discussion excerpts presented in Table 7 help to parse out these gendered differences in symptom identification and awareness. Excerpts are drawn from two gender-specific groups and

Table 7. Comparison of Symptom Discussion by Gender^a

Men: Focus Group, July 5, 2013	
Moderator:	Okay, now one quick questions [sic], what do you think is the cause of heat stress or heat illness? What do you think about that?
Man 3:	I think that stress is when you can't resist the heat, because it's too strong, I don't understand that.
Man 4:	It can be fainting, right?
Moderator:	Fainting.
Man 4:	Fainting or dizziness from the heat.
Man 1:	When one has heat stress, it's because they have heatstroke and they have to take care of themselves, take care that you don't get too much sun, and not be under the sun.
Moderator:	That's what we really want to understand and know, sunstroke—what did you say, Man 4?
Man 4:	You get dizzy.
Man 4:	Fainting.
Moderator:	Fainting, that's what we really want to know, how it is that you know what it is, Man 2?
Man 2:	Sunstroke, too much sun.
Man 5:	Well with heat stress one can easily get wet, can get exalted when ...
Moderator:	What is exalted?
Man 5:	Get mad.
Moderator:	Get mad.
Man 5:	Get mad faster, heatstroke is when you faint and you throw up.
Women: Focus Group, August 8, 2013	
Moderator:	You have heard of heat stress?
All Women:	Yes.
Moderator:	Okay, what do you think it is?...
Woman 1:	Fatigue.
Moderator:	Fatigue, you've already told me. What is it that you interpret as heat illness?
Woman 1:	Headache.
Woman 3:	Vomit.
Woman 5:	Body aches.
Moderator:	Body aches. What else?
Woman 4:	Chills.
Moderator:	Chills. What else?
Woman 4:	Tiredness.
Woman 6:	Cramps.
Moderator:	Cramps, dizziness, stomach pain, blurred vision, dizziness—
Woman 9:	Very strong palpitations in the head and heart.
Moderator:	Do you believe that this can also cause death?
All Women:	Yes.

^a The excerpts presented here have been edited grammatically for clarity.

compared side by side. By displaying the conversation threads in this manner we can observe a gender-based pattern. Women tend to describe a wider range of symptoms, and as noted in Table 7, they include more early-level symptoms like cramping and fatigue in their identification. Men, on the other hand, tend to focus on later-level symptoms as indications of heat illness, which is important to keep in mind given that the symptoms they more frequently identify are those associated with late stages of HRI: nausea, fainting, and anger and/or irrational behavior. Men more frequently than women identified fainting or falling as the most significant indicator that someone was ill, though not necessarily suffering from HRI. One male participant's statement in particular captures this emphasis on fainting or falling as the indicator of heat illness, even though there is acknowledgement of other factors that may have contributed to the ultimate effect of passing out:

One day we were working and a woman who was covered up fell and they took her, two or three weeks later another man fainted for the same reason, because of the symptoms. Most always when it is really hot people fall and faint, but sometimes I don't know, they're not well informed. (Participant #4, Farmworker Focus Group, June 13, 2013)

Worker Training and Education

Participants reflected upon their training experiences and their level of workplace education related to HRI. The level and degree of formal training that participants had received was hard to gauge. Verbal information-sharing from employers to workers, and between workers, seemed like the most common form

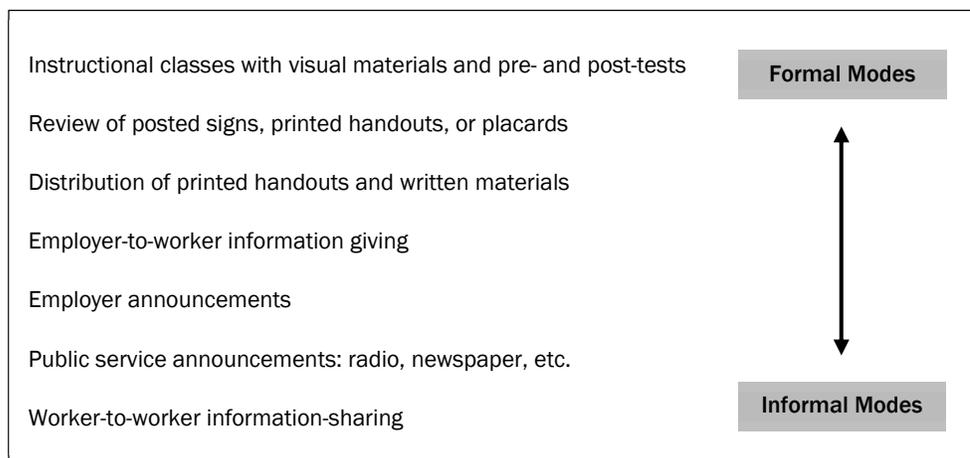
of education. Information-sharing was a consistent enough practice across the Cohort that most workers had at least heard about formal and/or legal HRI protections. However, verbal information-sharing did not seem to provide accurate information related to HRI symptoms and prevention practices. Cohort members often suggested that the use of videos to learn about HRI prevention would be helpful, underscoring the potential value of seeing on screen how a farmworker can respond to HRI emergencies.

When asked whether they were “given training” by their employer about any number of topics related to HRI, the participants often stated they were told or advised by their employer or supervisor to “drink water” or “take rests” if they “feel dizzy” or “feel sick.”

Training experiences described by the majority of participants (e.g., reading paper pamphlets, receiving flyers to take home) are not indicative of promising practices for worker safety education (Burke et al., 2006). The range of education and training experiences clustered more prominently around the informal modes of learning (see Figure 5).

Cohort members made frequent references to information-sharing in the workplace—simple statements about heat stress offered up periodically through a one-way exchange, either worker-to-worker or employer-to-worker. Several participants in the Mixteco-language focus groups identified worker-to-worker information-sharing on heat

Figure 5. Modes of Worker Education and Training



protection techniques as a specific form of training. This contrasted with the Spanish-language groups, where the notion of worker-to-worker information-sharing seemed hindered by a strong sense of worker independence. For the Mixteco-language groups, the desire was expressed to inform relatives and others arriving from a shared village or region of origin within Mexico upon arrival in the San Joaquin Valley about the challenges of working in the heat.

When there are people who still don't understand [how hot it will get], and those of us who have been living here for a long time, we should talk to them, because there are some who do not understand, yet. We should talk to them, "this is how it is here," "it is hot," and "we should work this way." We can talk to them and they will understand. Because it is so hot, when people are arriving from Mexico, they feel the heat. (Participant #2, Farmworker Focus Group, August 9, 2013)

Employer information-sharing is the more frequent Cohort member experience. Sometimes such interactions take the form of directives such as "drink water" or "be sure to take a rest."

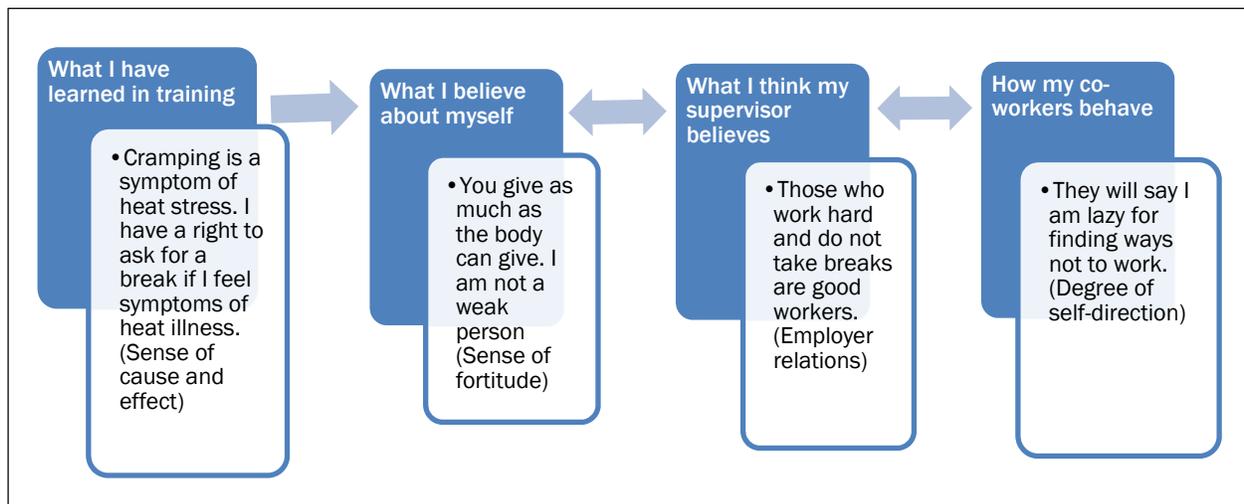
However, these are not to be confused with levels of formal training that allow for interaction and exchange between participants and a trainer, to cultivate new knowledge or bring about individual behavior change. The more common, informal experiences in acquiring information about HRI and worker suggestions on teaching methods, prompted us to take a closer look at how members of the Cohort actually make sense of new information and who they experience learning more generally.

Learning and Worker Beliefs

Some participants describe interactions with their supervisors that include an acknowledgement of their rights as workers to ask for shade or take a break under high temperatures. Many participants acknowledge that their awareness of these rights resulted from some form of information-sharing or, in a few cases, formal training they received from their employer. However, Cohort members also convey a sense of conflict in the exercise of those rights. Beliefs about productivity, personal fortitude, and illness interact in ways that subvert some worker efforts to exercise their rights and more openly identify early symptoms of HRI. Figure 6 helps to illustrate the relationship among beliefs, self-perceptions, and learning as expressed

Figure 6. Relationship Among Beliefs, Self-perceptions, and Learning as Expressed in Focus Group Interviews

Moving from left to right, the darker-shaded boxes indicate internal calculations that occur as new information is reconciled with competing beliefs and perceptions. A corresponding factor cluster for each calculation is presented in parenthesis.



throughout the focus group interviews.

Drawing upon an example from participant discussions related to workplace rights, the linkage between beliefs, perceptions, and learning becomes clearer. We found evidence of such internal calculations and weighing of beliefs throughout the focus group discussions. This example also helps to elevate some of the complexities behind workers' behaviors to prevent HRI and to intervene on behalf of others when health is at risk in the field, and it further illuminates the interaction of factor clusters, which shape self-care actions (see again Figure 3). Plotting the corresponding factor clusters for each belief and/or perception further elaborates the degree of interaction operating behind farmworkers' behavioral choices. The more common informal learning and information-sharing experienced by Cohort members might privilege some factors over others when participants make calculations about HRI prevention, such as an overreliance on the Degree of self-direction. This may come at the expense of minimizing others such as Knowledge of cause and effect, which could be lifesaving if given more weight in such calculations.

Overarching Structural Factors and Patterns

Two overarching structural patterns cut across all focus group sessions. We will discuss each to better understand how these structures shape worker experiences and how they might pose significant challenges for interventions aimed at changing individual HRI prevention behaviors. The first pattern is tied to the structure of payments and the location of Cohort members within the labor force. The second pattern elevates the interplay of worker control and employer relations in the workplace. Intersecting with these patterns are what may be referred to as misconceptions and folk beliefs about health and illness. This presents a third complementary pattern, which will be explored concurrently given the mutual interaction it had with the two larger structural factors.

Pay Structure and Worker Productivity

The majority of the participants are paid under a contract at piece rate (see again Table 4). Some

participants in the cohort referred to this pay scheme as “by contract,” and this is contrasted with work “by hour,” even though the latter can also be performed under a contract. The benefit of a piece rate to growers is clear: they have a workforce that is motivated to rapidly complete the tasks at hand. This pay scheme benefits the employer, who may be under pressure to fulfill contracts that stipulate a certain standard related to fruit and vegetable quality or maturity, to avoid sudden changes in the weather that can damage crops, or to complete a harvest to meet high seasonal market demands. Cohort members insist that piece rate is the preferred pay scheme in relation to cumulative earning potential. However, this preference for piece rate is less clear-cut than it appears on its face. The economics of low-wage agricultural employment create a false choice between the lure of earning more money, faster, under piece-rate agreements, and the desire for more stable hourly wage opportunities. Yet given how hard the work is on the body and the high temperatures workers must endure, participants see trade-offs with both forms of payment (see Table 8). For example, there is a trade-off between the range of personal control (high for piece rate) and the opportunity to make more preventative self-care decisions (low for piece rate). A closer look at such trade-offs between pay schemes will help to further explain the preference for piece rate work found among the Cohort.

The conversational nature of the focus groups presented some limitations to understanding the specific variables at play for workers earning an hourly wage. Nonetheless, it was possible to identify patterns regarding hourly wage agreements.

Table 8. Comparison of Worker Considerations by Pay Schemes

Worker Considerations	Degree of Occurrence	
	Piece Rate	Hourly
Earning potential	High	Low
Sense of fortitude	High	Moderate
Preventative, self-care decisions	Low	Moderate
Range of personal control	High	Low
Risk potential	High	High

Participants conceptualized the hourly supervisor as more paternalistic, directly responsible for determining how they work, when they take breaks, and when they are finished. The range of personal control under hourly wage agreements is viewed as quite low.

When asked about the frequency of formal training, encouragement to take breaks, reminders to drink water, and having access to shade, hourly wage agreements were identified as the form of employment where these preventative practices were most common. Participants also convey a sense that hourly workers are asked to work longer hours without having a choice of when to “call it a day.”

I know some people that go to work and when they come back home, they don't have the strength or when they don't drink water, when they get back home in the evening, they get very thirsty and they want to drink a lot of water and they said that they don't have strength because they work too much. When they work per hour, nobody tells them to get off and go home. When they are working piece rate, they can get off of work at any time they want... (Participant #1, Farmworker Focus Group, August 9, 2013)

Yet this asserted worker agency to “leave when they want” under piece rate is not consistent with the profile of self-care decision-making described above, and the tendency to choose higher earnings over voluntary rest periods. Taking a break or rest while getting paid by the piece means that the worker, in essence, is paying for the idle time through loss of output, while the employer pays for the idle time when a worker is paid by the hour. This often pushes workers to experience feelings of compulsion to ignore the self, to subordinate the body to the rhythms and pace of the harvest.

No, most [hourly jobs] don't pay. Like us where we are, it is by contract, people give as much as the body can give. If people know they can't go on, they sit, but because it's by contract, one gives as much as the

body endures, because the more you deal, the more you make. You earn more and then... (Participant #2, Farmworker Focus Group, August 8, 2013)

So, while hourly wage earners are likely to benefit from a set of prescribed safety rules, workers feel subordinated to the directives of the employer. In this way, hourly agreements undercut the subjective sense of control that workers value, fix wages at lower cumulative rates, and diminish the degree of fortitude that can be expressed at work. This better explains the participant assertion that piece rate work is preferred, despite the heightened tendency under such pay schemes to subordinate self-care to the demands of the harvest. Still further, the desire expressed by many participants to be recognized as hard workers with great fortitude, and the perceived employer interest in hiring fast, low-maintenance workers, tends to reduce the likelihood that participants stop working and assert the right to self-care. At minimum, an assertion of such rights requires that general worker knowledge of illness and HRI symptoms is sufficient to supersede reliance on folk belief systems related to health and misconceptions about body function (e.g., the deleterious effects of cold water on a hot body). Moreover, Cohort experiences suggest that employer investments in training to correct HRI knowledge deficits are uneven at best. In this way, control of the labor force is buttressed through the maintenance of misconceptions about HRI and the perpetuation of folk beliefs related to the body and health. The interplay between pay structure and worker belief systems within the Cohort data is consistent, and this indicates a significant barrier to preventing future HRI deaths.

Employer Relations and Worker Control

Individual experiences with employers varied to a certain extent, but some recurring themes related to employer relations did emerge. Participant descriptions of employers fall into two very broad categorizations of caring employers and uncaring employers. Caring employers were described as having some personal investment in the agricultural business at hand, like a rancher or a farm owner.

Those described as not caring were most often farm labor contractors and farm businesses that hired “by contract.” This dichotomous view of employers reflects the experience of many low-wage employees in a variety of sectors. Yet for the Fresno Cohort it was also tied to a set of complementary concepts about worker control.

An array of codes clustered around the level of worker control and relationships to supervisors. If being paid by the piece, supervisors were viewed as a drag on the potential to earn wages, interrupting workers with encouragements to take breaks or water, detracting from their potential time to make more money. Further evidence of this dynamic is found in the large number of participants who bring their own water to work sites, in order to limit idle time when paid by the piece and to maintain more control over the length of their work day. Conversely, hourly wage employees described supervisors in terms of being either caring or not caring, a distinction from piece-rate employer relationships, which are most often portrayed as disinterested in worker well-being. Moreover, relationships with farm labor contractors in a supervisory role are consistently identified as strained regardless of the pay structure.

Participants also referred to requirements or directives by any supervisor to take breaks, drink water, or seek shade as impositions when paid piece rate, and acts of compliance when paid hourly. The function of the supervisor is viewed differently depending on the pay structure. The shifting interpretation of supervision, however, should not obscure the larger categorization participants make between employers who care and those who do not care. This was further supported by the fact that it mattered a great deal to participants how a foreman, forewoman, or supervisor expressed or acted upon a rule. Having an information-sharing session before a workday conveyed some sense that the employer cared for workers. Voluntarily bringing water to the workers in the field and offering them a drink was also described as an attribute of a more caring employer, although that had no clear relationship to a worker’s willingness to drink the water offered. Here again the notion of control and choice still

underpinned self-care decisions and worker beliefs.

Another aspect of worker control and employer relations emerged in conjunction with a worker’s position within the labor force. Participants’ descriptions of health knowledge and their own calculus for pursuing self-care was reconfigured as their position in the workforce changed. For example, participants who occupied a position as a supervisor or tractor driver spoke more consistently about taking breaks and having more knowledge of HRI prevention. There was a more prevalent emphasis on taking breaks, drinking water, and leveraging knowledge of cause and effect related to health, for the few members of the Cohort who received a salary. Individual control seems to interact with the increased level of worker knowledge about cause and effect, thus reconfiguring control as worker self-direction to avail oneself of existing workplace protections and regulations.

Conclusions

A synthesis of findings from the CHIPS Fresno focus groups calls into question current methods used for training and education to prevent HRI. The data have helped to develop a model of interactive and adaptable relationships among worker behaviors, beliefs, and low-wage agricultural work structures that can guide future research. The factor clusters discussed present a complex architecture that workers use to decide on self-care actions. Convincing workers to take action to prevent HRI is the ultimate aim of training. It is therefore important to understand how relationships between identified factor clusters interact when different HRI intervention and prevention strategies are deployed, and to isolate those clusters that can be modified through policy change, more comprehensive worker education, and/or the use of new technologies.

Drinking and Eating Habits

Findings related to drinking and eating highlight a complex interplay of factors in self-care decisions. While a gap in worker knowledge may have some role in shaping Cohort hydration practices, there is clear evidence that most participants knew that

they should drink while working in the fields, especially when working rapidly at piecework.

This points to beliefs about the properties of water and the functioning of the human body that better explain part of what may deter workers from drinking water. While it is sound practice to train farmworkers to increase water consumption, there is little evidence that drinking water is part of the everyday behavioral practices of field workers. Still further, the act of drinking water manifests more often as something identified as a requirement of the employer or a requirement of the job, an imposition from a source of power and control rather than an internal impetus. Patterns related to water consumption point to other complex variables that determine what action workers take toward self-care.

Self-Care Routines and Patterns

The eight factor clusters presented in Figure 3 generate a nuanced view of the dynamics that affect farmworker self-care. While we cannot determine the frequency or degree of influence on individual decisions for each factor cluster, they are useful as applied theoretical tools for understanding potential interactive relationships. For example, focus group data show that the majority of Cohort members understand, on some level, the importance of drinking water, taking rests, and seeking shade throughout the workday. However, the factors that shape individual decisions to actually pursue actions point to more dynamic, interactive patterns of decision-making.

Worker Knowledge and Perceptions of Heat Illness

A more general sense of cause and effect of illness is probably better understood as a set of beliefs about how the body responds to environmental conditions, including changes in temperature. It is not necessarily true that the workers are unaware of HRI as a real phenomenon, but our findings suggest that training related to causes and symptoms of HRI might not get cognitively organized in ways that are directly linked to cause and effect.

Perceptions by Gender

The observed gendered awareness of symptoms has significant implications for farmworker

training on heat stress. If women are more likely to be attuned to lower-level signs of heat illness and men are less attuned, the scope and emphasis on symptom presentation in training should be modified to reflect this difference between the genders. In addition, men may not approach intervention at the earlier stages of heat illness. Further exploration of beliefs tied to the notion of limited male vulnerability, combined with a sense of emergency around only the most severe symptoms of heat stroke (e.g., falling, fainting), seems warranted.

Worker Safety Training and Education

Participant experiences point to more informal modes of worker education as the more common experience in the field. These more informal modes of education and training often rely on the distribution and voluntary review of printed materials. Handouts identified as most engaging to farmworkers were those with full-color pictures and designs. However, according to most participants, printed materials are often ignored or not read in full. The other key finding related to educational outreach efforts was that most participants identified videos as the preferred medium for delivering training content.

Learning, Beliefs, and Worker Perceptions

A more formal study of the model generated here will be explored in future research to isolate some of the variables and processes that increase the likelihood that farmworkers will act to prevent HRI. In addition to the insights gained from this review of the subjective participant experiences, the coded data also elevate some structural factors that affect the shared experiences of the farmworker Cohort.

Overarching Structural Factors and Patterns

Not only does the organization of piecework itself undercut efforts to keep workers safe, it also reinforces workers' misconceptions and beliefs about their bodies and health, in ways that benefit the employer. Notions of worker control convolute efforts to engage in self-care and take timely action to address HRI symptoms. The incentive to demonstrate fortitude in the workplace even when

suffering from early symptoms of heat illness is best understood as a coping mechanism and response to the structure of pay in the sector. The risk with this compensatory strategy for workers is that it can ultimately take a person out of the earnings arena altogether, if health and safety are compromised in the process.

As position in the labor force changed for participants, so did their description of health knowledge and their own calculus for pursuing self-care. This pattern aligns with research by Theorell (2003) showing a relationship between increased levels of worker control and improvements, and the overall health of the worker.

More direct exploration of worker beliefs and habits under hourly wage agreements could help to identify implications these perceptions might have for worker health and safety. Nonetheless, the data presented a profile of worker and employer relations that orbit around the level of worker control. Still further, by leveraging subjective worker views about their own sense of fortitude, employers reproduce a preference among workers for pay structures that diminish production losses while encouraging worker risk-taking. This finding harmonizes with Holmes (2013) and Thomas (1985), asserting the interplay of worker identity and workplace practices to explain the persistence of workplace inequalities and worker risk-taking related to health prevention.

The other potential target for change that arises from this study is the behavior of farm labor contractors, as they play a significant role in the employer relation factor cluster. Cohort views of relations with contractors further affirm findings from Majka & Majka (1982) and Wells (1996) related to the advent and prominence of labor contractors in California agriculture as an intransigent impediment to improved conditions for low-wage agricultural workers. Our preliminary findings underscore the structural relations of agricultural employment that will continue to undercut strategies focused solely on behavior change to ensure HRI prevention, regardless of whether that change is among workers or employers. The findings from the Fresno Cohort point to the salience of employer relations in the worker calculus to pursue or consider self-care regimens.

Future CHIPS focus groups will continue to explore the theme of employer relations and self-care, given the initial findings presented here. These findings may assist in future investigations of how time spent in the field relates to individual responses to and construction of coping mechanisms for heat exposure and how individuals learn about HRI prevention. Taken together, the initial findings from the Fresno Cohort identify pay structures, employer relations, and subjective worker views (e.g., worker control, sense of fortitude, misconceptions about body function) as the most appropriate targets for change to bring about longer-term improvements in farmworker health.

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#LivingOffTips: Reframing food system labor through tipped workers' narratives of subminimum wage exploitation

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Abstract

Agri-food movement literature largely represents food system labor through images, descriptions, and depictions of farm workers and other agriculture-related labor, such as slaughtering and meatpacking. Although engaging in a holistic dialogue that considers the continuum of labor abuse across the food system may be a difficult task, privileging production-oriented food system labor reinforces what Guthman (2014) calls an “agrarian imaginary.” Such narrow representations can marginalize the food system workers whom modern consumers are most likely to encounter: restaurant staff that prepare and serve food. Tipped workers’ subminimum wage is subsidized by the good graces customers; staff have little access to health benefits or sick days; female

restaurant staff are subject to sexual harassment, abuse, and even assault. Through the Restaurant Opportunities Centers United (ROC), tipped workers are engaging in active resistance through advocacy and online/social media campaigns. Stories of tipped worker exploitation submitted to the ROC #LivingOffTips online forum are examined through qualitative analysis. Tipped workers’ narratives frame the risks of tipped labor exploitation, define tips as an issue of wage inequality, and characterize the essential role played by wait staff, thereby encouraging a reconsideration of food system labor by the alternative food movement. By narrativizing their experience of the subminimum wage, tipped workers not only make restaurant labor abuse more visible, they strategically frame their work as legitimate food system labor.

Keywords

restaurant labor, subminimum wage, food justice, framing, narratives

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Introduction

From growing and picking produce to managing and slaughtering livestock, from food manufacture to food transport, from stocking store shelves to serving fast food, the modern industrial food system runs on labor from farm to table. Food-related industries, including those involved in the growing and harvesting, processing, stocking, preparation, and serving of foodstuffs, comprise the largest sector of the U.S. economy, accounting for nearly five percent of the GDP¹ (U.S. Department of Agriculture, Economic Research Service, n.d.). Despite the productivity of this sector, workers across the food system use public assistance such as food stamps (SNAP) twice as much as the rest of the U.S. workforce (Food Chain Workers Alliance, 2012). Indeed, labor insecurity and inequality exists on a continuum across the global industrial food system.

Critiques of food system labor have largely tended to focus on production-oriented workers, such as farm laborers or meat packers and processors (Alkon & Agyeman, 2011; Gottlieb & Joshi, 2010; Gray, 2014; Weber, 2009). As Guthman (2014) has suggested, this can indicate a latent privileging of an agrarian mythos that elevates an idyllic image of American agriculture. However, in limiting the scope of food system labor reform to those who represent more traditional forms of food work (such as farmers) or “conventional food chain workers” (Sbicca, 2015, p. 675), food system researchers, agrifood advocates, and food justice activists risk marginalizing the food-related workforce that consumers are more likely to interact with: tipped restaurant staff.

The restaurant industry accounts for some of the fastest U.S. job growth (Coughlan, 2014), employing nearly eight percent of the workforce. Yet employees in this sector experience difficult working conditions, high turnover, and historically stagnant wages (Jayaraman, 2013). In particular, restaurant workers experience poverty at nearly three times the rate of any other workforce. Con-

trary to popular stereotypes, the average tipped restaurant worker is most likely to be female, over 30, with children (ROC, 2015). While they struggle with personal conditions of food hardship, unsafe working conditions, and low wages, these workers nevertheless provide essential labor that keeps the food system functioning.

Resistance to these conditions has been developing since employees of Windows on the World, the fine-dining restaurant atop the World Trade Center, waged a strike in 2002 (Jayaraman, 2013). Through organizations such as Restaurant Opportunities Centers United (ROC), restaurant workers have continued active resistance through guerilla-style peer-to-peer research, advocacy and leadership training, and national public campaigns. Since 2013, ROC has led campaigns, from Washington, D.C., to Los Angeles, to raise the subminimum wage and to curb other labor abuses affecting food industry workers, such as wage theft and discrimination. With 10 chapters, ROC has continued to organize restaurant industry reform campaigns across the U.S., establishing the 1 Fair Wage campaign to increase the restaurant minimum wage and eliminate dependence on tips for server income. In addition to public rallies, 1 Fair Wage facilitates #LivingOffTips, a publicly accessible web page for sharing stories of restaurant labor and subminimum wage abuse, and of need for food system reform.

The subject of this analysis is the struggle of restaurant workers against an exploitative tipped-wage system. By sharing their stories of #LivingOffTips, these workers make their wage exploitation visible to audiences that perpetuate and participate in the subminimum wage, including the public, other tipped workers, legislators, and agrifood researchers and advocates, framing their position as food system labor and the need for subminimum wage reform.

Labor and the AgriFood Movement

Food and labor justice groups have long fought for food workers' rights, from the historic United Farm Workers strike of the 1960s to the Coalition of Immokalee Workers' public demonstrations against Yum! Brands. The issues these laborers face, such as low wages, unsafe work conditions, as

¹ In dollars, agriculture and food-related industries accounted for nearly US\$835 billion of the U.S. domestic gross domestic product (GDP) in 2014 (USDA Economic Research Service, n.d.).

well as racial and gender discrimination, are indeed important, and continue to impact the marginalized groups that sustain our food system. Tipped restaurant workers endure similar hardships: the lowest and most historically stagnant wages, harsh work environments, and risk of sexual violence.

Tipped restaurant staff are paid what is known as a subminimum wage. Though some states may have higher minimums, the average subminimum hourly wage is US\$2.13. Restaurant workers receive tips with the expectation (indeed, a federal mandate) that tips combined with the direct hourly wage “at least” equals the federal minimum wage (U.S. Department of Labor, n.d.). Working 40 hours per week, a worker paid the federal minimum wage (US\$7.25 per hour) earns approximately US\$16,000 per year; a restaurant server working 40 hours per week would have to make up more than US\$10,000 in tips to equal the annual earnings of their untipped counterpart. About half of all food and beverage servers and related workers (including those in service, prep, cleaning, and customer service positions in the restaurant industry) were employed part-time in 2012 (BLS, 2014). Furthermore, because of employees’ part-time status, restaurant employers are able to maintain a workforce just below the federal requirements for health insurance benefits; many workers, including servers and kitchen staff, are thus forced to work while ill. Indeed, there are no federal or state requirements for restaurants to provide tipped workers paid sick days; many food industry employees report not even having the opportunity for an unpaid sick day (Jayaraman, 2013, p. 53). Finally, although female staff make up only about 7 percent of the restaurant workforce, they are extremely vulnerable to sexual harassment; nearly 37 percent of all sexual harassment complaints received in 2011 by the Equal Employment Opportunity Commission were filed by female restaurant workers (Jayaraman, 2013, p. 142).

Although it is likely an unintentional oversight, the agrifood movement² has been slow to engage

the significant and pervasive exploitation of labor in the restaurant industry. Much of the critical public and academic scholarship on agrifood politics critiques primarily the modern corporatized food system (Besky & Brown, 2015; Fairbairn, 2012; Sbicca, 2015) in which, indeed, restaurant staff participate. Recent calls from prominent figures, including Allison Hope Alkon (2014), Mark Bittman (2014), and Michael Pollan (2013), to bring attention to and re-emphasize issues of wage labor in the agrifood movement agenda are promising. Scholars also recognize the “transformative potential of agrifood politics” in reframe food system discourse (Fairbairn, 2012, p. 218). However, agrifood movement literature generally represents food system labor through images, descriptions, and depictions of farm workers and other agriculture-related labor such as slaughtering and meatpacking. Although engaging in a more holistic dialogue that considers the continuum of labor abuse across the food system may be a difficult task, privileging particular representations of food system labor reinforces what Guthman (2014) has called an “agrarian imaginary.”

The trope of agrarianism is widely evident in the seminal books of the agrifood movement. For example, while index searches for “work” and “labor” fruitfully turn up reports of labor abuse, as well as critiques of workers compensation insurance practices, labor contractors, and the Fair Labor Standards Act of 1938, these are usually described in terms of farm and agricultural workers, migrant laborers, and (less frequently) those who labor in slaughterhouses (Alkon & Agyeman, 2011; Gottlieb & Joshi, 2010; Gray, 2014; Weber, 2009). Perhaps this is a move to promote agricultural work, as it continues to become more precarious under the weight of the very industrial food system that is itself sustained by restaurants peddling mass-produced and processed food. Importantly, the agrarian mythos also constrains that which it purports to signify, sustaining a “mystified image of a redemptive morally righteous family

² “Agrifood” is purposefully used in this analysis to denote the scope and transformative potential (Fairbairn, 2012) of the food movement and mission referred to throughout the essay. While various terms abound in the literature (food movement,

alternative food movement, and so forth), it is beyond the scope of the present study to pin down what is an increasingly nebulous, expansive, and niche-oriented movement(s), volume of literature, and range of agendas.

farm” (Besky & Brown, 2015, p. 25). Representations of idyllic and pastoral family farms do not align with the reality of modern production agriculture, and belie the landholding consolidation, pesticide toxicity, and rural poverty, among other issues, which characterize the reality of modern agriculture.

To be sure, Guthman (2011) and Gottlieb and Joshi (2010) make passing mention of cheap food labor, as well as restaurant and warehouse labor; the former couches this in a historical analysis of farmland dispossession by primitive accumulation, while the latter notes how food chain unions such as ROC and Warehouse Workers United “expand the food justice agenda” (p. xii). Eric Schlosser’s influential book *Fast Food Nation* (2001) remains not only the earliest exposé of the forces that produce and sustain a cheap food-labor force, including fast food workers and meatpackers, but also the single most pioneering bastion of support for industrial wage labor reform.

Such a narrow definition of “conventional food chain workers” (Sbicca, 2015, p. 676) unintentionally and subconsciously “substitutes the actual hierarchical labor-intensive workings of industrial [food]” (Besky & Brown, 2015, p. 25). with a false hierarchy that privileges agricultural labor while marginalizing the workers who prepare and serve food. The latter, it should be noted, are the food system workers modern consumers are most likely to encounter; the average American consumer dines in restaurants at least once a week (Rasmussen Reports, 2013). The agrifood movement agenda would be better served to engage the interlinked nature of food system labor as it exists—on a continuum of insecurity and inequity. In other words, limiting food system labor to the agrarian sectors forecloses efforts to make the mainstream agrifood movement inclusive, and is simply not responsive to the complex reality of modern food system labor.

Some food and labor studies researchers have raised the centrality of labor to food justice and the simultaneous inability to “stave off worsening labor conditions” (Sbicca, 2015, p. 676) as a key contradiction within the agrifood movement (Besky & Brown, 2014; Fairbairn, 2012; Sachs, Allen, Terman, Hayden, & Hatcher, 2014). Through

ROC, activists are actively seeking to redefine food security and food justice in order to account for the exploitative practices of the restaurant industry. #LivingOffTips offers a platform for sharing server experience working for tips; through their posts, ROC activists stake their position as food system laborers, using stories of wage exploitation to frame their fight for subminimum wage reform and influence all who participate in this wage system.

Strategic Framing and Narratives

Framing refers to the way communicators strategically construct messages to delimit, characterize or otherwise shape perception of an issue or argument in an effort to influence judgments, attitudes, or behavior (Benford & Snow, 2000; Entman, 1993; Goffman, 1974; Hallahan, 2008; Kim, 2015). While framing is primarily considered in terms of broadcast media communication strategies (Entman, 1993), social advocates also strategically frame their messages to gain a favorable response (Hallahan, 2008). Framing highlights the process of meaning creation, and is not limited to “skilled” communicators (broadcasters, media, or professionals) but can be strategically deployed by those seeking to influence cognitive or behavioral outcomes.

Frames operate as “schemata of interpretation,” or windows of understanding; by focusing attention on particular aspects of social reality, individuals can “locate, perceive, identify, and label” a particular meaning (Goffman, 1974, p. 21). For example, shifting from a violent connotation as in the statement, “She decimated my idea,” to one of disagreement as in “Her idea conflicted with mine,” affects perception in an event like a public debate. In this way, frames provide what Hallahan (2008) identifies as “contextual cues” (p. 4856) that influence cognitive processing and decision-making, shaping not only what to think about, but *how* to think about situations, issues, and topics. As an interpretive intervention, frames affect how an issue or topic is defined and characterized, as well as how causes and remedies are attributed (Entman, 1993; Hallahan, 2008). Communicative frames can influence decision-making by presenting the “acts, outcomes, and contingencies

associated with a particular choice” (Kim, 2015, p. 286). For example, campaigns presenting the positive results of behavior shifts are more likely to be persuasive than those depicting deleterious consequences of continued inaction (Kim, 2015).

Communicative frames also aid in agenda-setting, playing a critical role in the creation of public discourse about a social problem (Hallahan, 2008, p. 4858). As Benford and Snow (2000) state, social movements actively mobilize meaning and ideas as agents of signification (p. 613). Indeed, social groups, including advocates and activists, must be strategic when framing the issues for which they campaign, as well as the social changes they seek, in order to shift understanding, gain support and forge alliances, and to achieve instrumental gains. For example, Fairbairn (2012) explicates food sovereignty as a counterframe for the corporate food regime, signifying discursive opposition to the structure of the global industrial food system. The food sovereignty movement uses framing to challenge the mainstream and historical meaning of food security, as well as to reconfigure the function of the food system itself. Framing is thus an essential rhetorical tool, which can affect choices involved in responding to, mitigating, or resisting social political issues faced by various audiences.

The story form is widely recognized as a catalyst for effective framing, as it allows communicators to “capitalize on culturally resonating elements” and “make [a topic] attractive” to various audiences (Hallahan, 2008, p. 4859). Narratives are widely recognized for their sense-making capability and persuasive function (Clair et al, 2014; Fisher, 1984; Hammack, 2011). As Fisher (1984) has argued, narratives reinforce beliefs, illuminate cultural beliefs and values, aid in the management of social norms, and even cultivate cultural identity. Indeed, narrative provides a lens for understanding everyday experience, cultural history, and social reality (Clair et al, 2014). The arrangement of information into a plot, ascription of character attributes, definition of causes and outcomes, and depiction of plausible events make narrative a handy and effective interpretative package. Through their form (sequential structure), fidelity (what makes a story “ring true”), and probability

(what constitutes a coherent story), narratives inform the “good reasons” used in decision-making (Fisher, 1984, p. 7). In this way, narratives do more than just tell stories: they convey meaning and can influence behavior and action.

Importantly, narratives provide an interpretive prism through which “implications for a particular configuration of social categories” can be revealed, examined, and changed (Hammack, 2011, p. 312). Some narratives function specifically to expose structural conditions of inequality; counterstories can empower their writers by providing space in which to reveal, name, and criticize their marginalized status, while making audiences more aware of the need for reform. For example, Dixon (2015) compellingly explicates the power of stories to resist marginalizing master narratives linking hunger with a lack of personal responsibility. By defining situations or issues, explaining causes, and locating remedies or solutions, narratives allow social actors to communicatively frame (unjust) experience, and thus intervene in audience perception, judgement, and action on an issue or cause.

ROC activists communicatively and strategically use their stories to frame the risky nature of tipped labor through appeals based on unstable wages, hazardous working conditions, and the threat of bodily harm. In this way, narratives of restaurant labor exploitation define tips as an issue of wage inequality and emphasize the essential role played by wait staff in the food system, encouraging a reconsideration of food system labor and subminimum wage reform by all those who can affect change in this wage system.

Method and Data Analysis

The analysis utilizes a qualitative textual-analysis methodology to examine how tipped workers use narratives to frame the conditions of their labor. Text-based research methods allow researchers to gain insights into the nuanced strategies used in public communication to influence perceptions of social issues, define problems, and advocate for solutions. The data for this analysis has been compiled via close textual analysis, or close reading: the “mindful, disciplined reading of an object [a text] with a view toward deeper understanding of its meaning” (Brummett, 2010, p. 25). Through close

reading, the researcher seeks to apprehend the socially shared meanings, associations, and possible effects that are suggested and supported by words, images, actions, and messages (Brummett, 2010, p. 7). As a method focused on how messages influence public audiences, close textual analysis is well suited for an analysis of stories of tipped labor exploitation.

An inductive analytic approach was used to decontextualize the data and reconstitute it into themes (Lindlof & Taylor, 2011, p. 243). Close textual analysis supports an inductive approach because it allows the researcher to dissect the symbols within the textual artifacts that comprise the data-set, using theoretical concepts to apprehend how meaning is created via the signification strategies the texts employ (Brummett, 2010, p. 47). Through several sessions of close reading, the #LivingOffTips posts were manually coded for repeated and frequently used topics, such as sexual harassment. Data was re-read to draw out variations among the dimensions of the categories identified (Lindlof & Taylor, 2011, p. 252), delineating communicative themes based on framing devices used the online posts.

The analysis is focused on the most recent year of resistance activity, in which ROC has organized high-profile and large-scale campaigns, and during which key instrumental gains have been achieved.³ Primary data include public online posts from tipped workers about their experience living on tipped wages. YouTube clips of restaurant workers' public demonstrations during a living-wage campaign, as well as reports on the subminimum wage and restaurant industry conditions from public policy groups, are also utilized as supplemental data.

Through an interactive public webpage on the ROC site, users can upload personal stories of their experiences of the hardship of food service using the hashtag #LivingOffTips. The #LivingOffTips

campaign web page presents a matrix of photos under the banner "Servers are fed up with tips. These are their stories. Please join us." Each photo reveals the user's story with a hyperlink to "Add your Story." Users who choose to submit are asked to include a name, contact information, a photo, and are given the following questions as guidance for telling their story:

What's it like living off tips? How would a stable, livable wage change your life...What's the craziest thing that's happened to you while working in the restaurant industry? Are you supporting a family? How many years have you been in the industry? Have you ever dealt with unwanted sexual behavior from customers, co-workers, or management? (ROC, 2015d)

A total of 108 #LivingOffTips stories were available as of December 2014, posted to the campaign website (<http://rocunited.org/living-off-tips/>); 104 included in the set of artifacts examined for this analysis.

It is important to note that all stories posted to this site are publicly available and accessible in perpetuity on the ROC website. Furthermore, this analysis has been completed through an interpretivist qualitative approach that emphasizes reality as socially constructed, culture as contingent, and communication as constitutive (Lindlof & Taylor, 2011). The stories contributed to the #LivingOffTips campaign provide rich examples of restaurant worker perspectives on their own labor conditions and daily work experiences. These stories need not be generalizable to the entire population of tipped restaurant staff; the inclusion of these narratives within a nationally recognized wage reform campaign, however, merits attention. Furthermore, while the nature of these posts makes it impossible to verify user status as actual restaurant workers, the thematic patterns discerned via close textual analysis warrant the constitution of a discourse worthy of examination. Finally, because of the sensitive nature of many of these narratives' content (such as accounts of sexual assault and other personal details), all contributors have been given pseudonyms in the analysis that follows.

³ For example, "ROC has led and won 13 major [national] campaigns against exploitation in high-profile restaurant companies, organizing more than 400 workers and winning more than US\$7 million in financial settlements and improvements in workplace policies" (<http://rocunited.org/our-work/workplace-justice/>).

#LivingOffTips: Framing Tipped Labor Exploitation

Restaurant employees such as hosts, servers/wait staff, and bussers work for a subminimum wage at which they earn nearly 75 percent less than the federal standard; their income is thus expected to be subsidized by customers' tips. As noted above, tipped restaurant workers endure difficult work conditions and little or no opportunity for health benefits or sick days, and are vulnerable to harassment; these conditions are directly connected to their economic exploitation.

ROC activists use narratives to share their personal experiences of earning tips as restaurant wait staff. By framing tipped labor as risky, these narratives define the issue of restaurant labor abuse in terms of wage instability, characterize their working conditions as hazardous, and attribute the threat of bodily harm to the exploitative nature of tipped wages. These stories function to disrupt the social order that largely renders their food service labor invisible, compelling reconsideration of the role these workers play in the food system and illustrating the need for subminimum wage reform.

Wage Instability

By participating in the #LivingOffTips campaign, restaurant workers use their stories to name and describe the insecurity of tipped labor in this industry. By framing tips as a gamble—that is, the volatility of not knowing how much (or how little) one will take home each day of work—these stories seek to influence public understanding of how tipped wages work. Indeed, through their stories of personal hardship and financial difficulty, restaurant workers provide a new “schemata of interpretation” (Goffman, 1974, p. 78), that tips are not bonuses for work well done but in fact constitute these workers' main source of income. In this way, #LivingOffTips narratives illustrate the “outcomes and contingencies” (Kim, 2015, p. 286) associated with tipped labor, contributing to ROC's mission of subminimum wage reform. These stories illustrate how tips function as customer-subsidized wages, with implications for the public who patronize restaurants and contribute to server income as well as for legislators who influence the public policy that determine states

subminimum wage level.

Across their posts, restaurant workers describe working for tips as “luck of the draw” (Wendy), a “game of roulette” (Susie), and a “crapshoot every night” (Jackie). These phrases mobilize a risk frame, analogizing their daily work experience to placing a bet on whether and how much income they will make that day. Framing tipped wages in terms of instability denotes the unpredictable nature of earning a wage that is ultimately determined by the customer.

For example, a worker named Page notes that servers cannot anticipate how busy their restaurant or how generous their customers will be, and the effect that has on her income: “Consider this: I earn [US]\$5.83 an hour before tips...whether we have a busy or slow shift, that won't even get me a trip to and from downtown.” Most owners/managers cannot reliably anticipate the day's business, and about a quarter of all restaurants close in their first year due to lack of profitability (Parsa, Self, Nitje, & King, 2005). Page's story strategically frames two important aspects of #LivingOffTips. First, she explicitly names the two-tiered wage system by which she is paid, simultaneously indicating the steady, though still inadequate, nature of her hourly wage (she knows she will earn US\$5.83 per hour for the time worked during her shift) and the variable nature of her tips (dependent as they are on having a “busy or slow shift”). Second, defining her wage in terms of transportation (presumably, gas money or transit fare) exposes how dependent on tips she is and the lack of reliable access to other necessities, such as transport, associated with the unstable nature of tips.

Similarly, another tipped worker named Mindy describes the difficulty she faces raising a family on server wages: “I have to [choose] what is important when I never know what I am going to bring home in tips. Sometimes I have to decide do [we] eat or pay my cell phone bill.” Not only do tipped workers struggle with the uncertainty of earning a variable amount of income, their stories demonstrate how restaurant work is also constituted by worry[ing] about whether or not their customers are going to help pay their bills. Framing tips in terms of gambling highlights the risk workers face in not knowing day-to-day how much income they

will be making. In this way, restaurant workers make visible their precarious position as one of the largest workforces in the U.S., even as they “struggle to survive” (Tosha), and “[make] no living at all” (Barbara) while serving food to others who in turn pay their wage through tips.

Across their stories, workers express their disdain for and embarrassment about being “[f]orced to rely on the kindness of society to live” (Abby), that “it’s like begging for money” (Tessa). Customers are described as “the strangers I’m serving and placating” (Jo) whose tips embody “how they are feeling” (Kirsty)—and ideally, their “generosity and courtesy” (Cara)—toward the server’s performance. Indeed, studies show that consumers tip to reward service (Lynn, 2014), and out of social obligation or burden (Azar, 2005, 2007).

Tips often function as a reflection of customer evaluation of the service provided rather than as the price of the labor required for food service, and often as evaluation of the server herself. Wait staff can be punished with little to no tips if customers are not fully satisfied. Servers can even be held accountable for things out of their control, such as coupon application and food preparation, as Claire explains: “Say your burger comes out raw, even if I put it in right, Little or no tip. Say, the food takes too long, no tip for me... Oh, wait? you can’t use two coupons at one table? No tip for me. Out of crayons? Don’t have to-go cups? NO TIP.” Stories like Claire’s frame tips as “begging for money,” which is a strategic intervention in the common cognitive assumptions about the practice of tipping; it is likely that most consumers are not aware that they are in fact subsidizing server income, not simply rewarding a job well done (Azar, 2007; Kenney, 2011; Lynn, 2014).

By naming their experience and giving voice to their economic hardship, restaurant workers’ stories function to make their unstable labor conditions visible, and effectively re-frame their wage insecurity in terms of wage practices and inequality. As Liz beseeches in her post: “Do [restaurant workers] not deserve a sense of financial security simply because they deliver your appetizers?” These stories thus unmask the contradictory attitudes about the importance of tips; customers

are under the illusion that they are an extra gratuity, but for workers, tips are in fact piece-wages paid for the quantity of labor expended through food service. In this way, server narratives frame the issue of the subminimum wage, setting the agenda for public discourse on the issue of food service labor and tipped wage inequality. These stories highlight the consequences of the subminimum wage by providing “contextual cues” (Hallahan, 2008, p. 4855) that influence cognitive processing and decision-making related to tips.

Hazardous Conditions: Working While Sick
#LivingOffTips stories use the instability of the subminimum wage to frame hazardous work conditions in the restaurant industry, such as the common occurrence of restaurant workers, including servers and kitchen staff, working while ill. In 2011, the Centers for Disease Control and Prevention reported that almost 12 percent of restaurant workers continued to work while suffering from flu symptoms, vomiting, or diarrhea on two or more shifts in the previous year (Sumner et. al, 2011, p. 217). ROC survey data also show that nearly 90 percent of restaurant workers report not receiving paid sick days or health insurance (Jayaraman, 2013, p. 53). By narrativizing their experiences of working while sick, tipped employees raise questions of worker and food safety. Threats to public health—of restaurant staff and their customers—bolster the unpredictable nature of tipped labor, characterizing the essential role food servers play in providing food to others. In this way, #LivingOffTips narratives destabilize the meaning of the eating-out experience by highlighting the likelihood that restaurant kitchens and dining establishments may not be as pristine and clean as customers expect. If working while sick is an outcome of tipped-wage inequality, subminimum wage reform not only benefits food service workers but consumers as well.

Working while sick is a strong theme across the stories posted to #LivingOffTips. For example, Tonya reports, “a close friend of mine was actually in labor and was pressured by management to finish her shift before leaving for the hospital.” She witnessed “a grill cook who was actually vomiting in the kitchen and then continued to work because

he was pressured by management to stay and finish his shift.” Freda recounts her own “worst experience,” working on Valentine’s Day “in one of the fanciest restaurants in Philadelphia” while stricken with strep throat, a highly communicable disease and public health hazard. Her manager refused to allow her to go home, thus risking exposure to restaurant staff and consumers, about which she sarcastically remarks, “Would you like *Streptococcus* with your romance?”

Tipped workers endure what Monica describes as a “tough, physical job that wears on your back, knees, and wrists.” In fact, in 2011 the U.S. Department of Labor ranked the restaurant industry as the third highest in total number of nonfatal occupational injuries and illnesses, including minor cuts, burns, slipping and falling (Jayaraman, 2013). Additionally, Jayaraman (2013) argues that the restaurant work environment may actually be *making* employees ill via exposure to one another, foodborne bacteria, and the fast-paced prep/service environment that often leaves workers unable to properly wash their hands or wear gloves. These conditions neglect the effect of food industry labor on employees’ health, and hide how customer health and safety is interconnected with that of the restaurant staff preparing and serving their food.

As Emma notes in her #LivingOffTips story, “rarely do restaurants create a shift schedule that accounts for the possibility of someone needing a day off at the last minute.” Worse yet, Gina describes being pressured by management to find her own replacement if she expects to take a sick day: “[I] was told that it was my responsibility to call all of my coworkers and find someone willing to cover for me, and that if I could not find someone, I would still be expected to come to work.” Tipped workers report high rates of threats of termination should they call in sick or ask for a day of rest. Illustrating these conditions through stories reveal how servers and wait staff are treated as a contingent labor force whose members can be easily and quickly replaced by others held in reserve. Because food industry employment requires little formal training, it can easily capitalize on low-skilled labor; restaurant employers can rely on a steady applicant pool waiting to fill employees’ spots on the payroll.

Stories of working while sick are compelling because they create a new window of understanding (Goffman, 1974) about the role played by the prep, line, and service staff in securing the smooth operation of a system that provides food for 58 percent of all Americans at least once a week (Rasmussen Reports, 2013). That these hazardous conditions must be endured while earning an unpredictable income means that servers threatened by termination and quick replacement are unduly forced to expend their labor at any cost, risking not only their own health but that of any others exposed to them in the restaurant environment. Servers’ stories strategically frame the vulnerability of workers under the subminimum wage system, redefining the relationship between customer and server. In this way, these stories present the deleterious consequences of tipped wage inequality and the implications of the subminimum wage for workers and consumers alike.

Threats of Bodily Harm

As revealed by their stories, perhaps the most contemptible aspect of the #LivingOffTips experiences is restaurant workers’ vulnerability to sexual harassment, abuse, and even physical assault. ROC data show that the restaurant industry is the single largest source of workplace sexual harassment, with 90 percent of female tipped workers experiencing some form of sexual harassment on the job (ROC & Forward Together, 2014). Tipped workers often feel pressured to be flirtatious with customers in order to encourage better tips from patrons, but this also exposes them to assault by restaurant owners and staff, leaving them feeling helpless. These worker stories frame sexual abuse as a condition for wages, the stories functioning as an interpretive intervention for those who participate in the subminimum wage system. In this way, #LivingOffTips narratives make visible another “outcome and contingenc[y]” (Kim, 2015, p. 286) associated with tipped labor, that of workplace safety and gender equity, and demonstrating the significant implications for subminimum wage reform.

Many #LivingOffTips stories recount pressure for servers and wait staff to flirt and otherwise sexually provoke customers by, for example, dressing

seductively or leading customers on. For example, Virginia recalls being called “Bunny” by dirty old men” as well as having to tolerate incessant “comments...about my body and clothes.” Furthermore, as Virginia “refused to dress provocatively,” she believes this “probably contributed to [her] low tips.” Lynn notes, “customers decide how much they’ll pay you by what they think of your looks” because “people tip for pretty, sexy, and flirty [waitresses].” Submitting to the reality of these abusive workplace conditions, some servers deliberately manipulate their dress as a means to garner more tips, as Nancy reports: “The girls I worked with and I had what we called a ‘tip shirt’ or ‘tip dress,’ something revealing that we made more money when we wore.” Trish explains how she “felt a constant pressure to dress and act in ways I didn’t always feel total comfortable with. This meant heels, make-up, close-fitting outfits...as a woman I couldn’t get tips if I didn’t embody a certain appeal.”

Natasha, appearing at a ROC-sponsored 1 Fair Wage campaign rally,⁴ explicates the issue in clear terms: “they [customers] think my body is for them to enjoy, look at, touch, say what they want. They think if they throw me a couple of dollars in the form of a tip, it’s ok...It’s like a power thing.” Trish similarly states that “conforming to the sexism of the position meant a certain loss of dignity, but had to do it because I needed to make a living.” These workers’ stories strategically frame customer-subsidized wages as a grants/exchange protocol between the restaurant worker and her customer, demonstrating the sexual objectification of servers as an outcome of tipping. Though it is not uncommon for restaurants and other dining establishments to encourage staff to “dress to impress,” or even require revealing uniforms to lure in a male customer base (Associated Press, 2012; Daley, 2011), these stories of restaurant labor abuse directly attribute employee subjection to unwanted sexual advances to the practice of tipping and the subminimum wage.

Restaurant sexual harassment is not limited to

unwanted catcalls and other flirtatious advances from customers; restaurant staff can experience violent sexual assault. Women who work in alcohol-related positions, such as bartending, bar backing, or cocktail waitressing, are more vulnerable to sexual assault on the job (ROC & Forward Together, 2014). Tina, a so-called “shot girl” at a college sports bar, shares a particularly horrific story of workplace rape. She describes being lured under the guise of “[learning] how we take alcohol inventory.” Upon entering a storage unit, she was told, “OK, sweetheart, tour’s [sic] over”; her manager began aggressively kissing, touching, and sexually assaulting her. When she complained, he responded, “You are the one that came down here.” She left feeling “humiliated, violated, and degraded.”

With its graphic detail, Tina’s story illustrates the degree of violence that tipped employees may suffer in the restaurant industry. Exploiting managerial authority, and what may also be an age difference, this brutality is more than an occupational hazard. Tina’s story frames subminimum health and safety standards in terms of the subminimum wage she earns as a “shot girl.”

Tipped workers reluctantly tolerate workplace harassment from both customers and management because, as Nancy put it, “those guys are paying my rent. The management is also often guilty of giving unwanted sexual attention, which is also tolerated, because they decide which shifts I work.” By making visible the overt exploitation—and then forced internalization of this exploitation—of servers through sexual abuse, these #LivingOffTips stories present, in horrific detail, the “acts, outcomes, and contingencies” (Kim, 2015, p. 286) of the subminimum wage.

By narrativizing their experiences at #LivingOffTips, ROC activists define the unpredictability of tips, characterize their hazardous work conditions, and demonstrate the physical implications of the subminimum wage. Further, I argue, tipped worker framing of the instability and insecurity of their food labor illustrates how wage inequality is experienced across the industrial food system. Researchers and advocates have provided damning evidence of similar sexual abuse among female agricultural workers (Block, 2014; Sachs et

⁴ 1 Fair Wage works in conjunction with the #LivingOffTips and #ImNotontheMenu campaigns organized by ROC (<http://rocunited.org/one-fair-wage/>).

al., 2014; Longoria & Schlosser, 2014). Through their use of strategic framing, these restaurant workers are able to make visible the instability of their labor, situate the work they do firmly in the sphere of the food system, and compel consideration of this labor exploitation as an issue relevant to the agrifood movement.

Conclusion

Heeding the calls of recent food movement figures and researchers (Alkon, 2014; Besky & Brown, 2015; Bittman, 2014; Pollan, 2013) to attune more closely to issues of wage labor in the food system, this analysis has examined the communicative strategies used by restaurant workers to narrativize and frame their experience as food system workers living off tipped wages. In this way, #LivingOffTips stories intervene in conventional interpretive schema of tips and/or tipping (as a gratuity or a bonus, not a subsidized wage), the nature of dining establishments (as not pristine, but actual breeding grounds for disease), as well as of servers themselves (vulnerable employees, not sexual objects), all of which are connected to the subminimum wage regime. Framing their experience in this way, and including these stories in the ROC campaign, illustrates the necessity for subminimum wage reform.

The stories posted to the #LivingOffTips campaign site expose the exploitative nature of working for tips through labeling and narrativizing the direct experience of restaurant workers. Stories of working while sick and experiencing sexual harassment associate the vulnerable bodies of tipped workers with their vulnerable wage situation. Because tips comprise a higher percentage of these food workers' pay, tipped staff must endure difficult and dangerous conditions to make their income. That most of this is hidden, or ignored, by the average consumer necessitates strategic framing to intervene in common cognitive assumptions about tipping, wait staff, and wages, in order to at once demonstrate the real implications of the subminimum wage as well as influence social change. By posting stories at #LivingOffTips, these workers make their labor visible to the various audiences that participate in the subminimum wage regime, including the public (who patronize restau-

rants), other tipped workers (who may empathize, and thus post their own stories to the site), legislators (who can influence wage policy), and agrifood researchers and advocates (who can shape the discourse of agrifood politics).

This analysis aims to shed light on a hitherto understudied sector of food labor. These stories frame the issues faced by restaurant workers along the same lines as other discourses of food-labor abuse that have garnered much more attention and engagement in the agrifood literature: low wages, difficult work conditions, and vulnerability to abuse. Strategically framing the risks of tipped labor, particularly those associated with their bodies (pressured to work while ill, enduring sexual harassment and assault), restaurant workers demonstrate the role they play in keeping the food system working. That these are also the food system workers whom consumers are the most likely to encounter makes the interpretive intervention their stories seek even more unsettling.

While it need not be an intention of ROC, the 1 Fair Wage campaign, or those who post #LivingOffTips stories to influence the agrifood movement, their discourse necessarily calls scholars and researchers, advocates and activists, to consider the interconnected nature of food system labor. Although critiques of food system labor have largely been framed through the agrarian imaginary (Guthman, 2014), this latent privileging of farm and agricultural work has had the (likely unintended) consequence of marginalizing other labor abuses endemic to the industrial food system.

Restaurant workers experience poverty and food insecurity at nearly double the rate of any other U.S. workforce (Jayaraman, 2013). Their employment in the food service sector puts this predicament into sharper relief, as they prep and serve food to countless others. Agrifood movement activists, advocates, and researchers must continue to seek out labor exploitation across the food system, and work toward the enactment of labor and wage reforms from farm to table. 

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Transformations in agricultural non-waged work: From kinship to intern and volunteer labor

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Abstract

What is the relationship between unpaid and non-waged work and the survival, and even growth, of small- and medium-scale farms? This research brief examines this question through examining the growth of internships and volunteer positions (non-waged work) on ecologically oriented farms, with a focus on trends in Ontario, Canada. Through reporting on the qualitative and quantitative findings of our research, we track the

decline of family labor throughout the broader agriculture sector and the emergence of new forms of non-waged work on ecological farms. We focus on the continuities and changes at play in shifting forms of farm work and discuss the new forms of knowledge exchange occurring on farms, the precarious economic situation of many farms, and the gendering of non-waged work. We conclude the brief by raising several challenging questions regarding the politics and sustainability of farmers' dependency on interns and volunteers.

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Keywords

agriculture, beginning farmer, farm transfer, gender, internship, non-waged work, succession, volunteering

Introduction

How have small- and medium-sized farms survived in the face of intense competition from large, industrialized agricultural operations and within the

context of a corporatized food system? As farmers search for creative pathways to navigate the fraught political and economic landscapes of agricultural production, what has been the enduring and changing role of non-waged workers in the reproduction of farms?

These questions are as old as capitalized agriculture and are at the heart of a growing trend that has seen interns and volunteers working on ecologically oriented farms (including agro-ecological, organic, and biodynamic operations) in Ontario, Canada, which is the focus of this article, but also across North America and Europe. In this research brief we report on how groups of interns and volunteers (non-waged workers) have come to replace unpaid family members as one means of negotiating the modern agriculture sector and the challenges of running a profitable operation.

We argue that a transformation has occurred in the nature and configuration of non-waged work on farms. Historically, operating and sustaining farms depended on family members that would work without receiving a formal wage.¹ However, as kinship labor has steadily declined over the last five decades, internships and volunteer positions have greatly expanded, to the point where there are currently several hundred ecological farms in the province of Ontario offering non-waged “farm experiences.” In short, while there has been a dramatic decline in on-farm family workers throughout the agriculture sector, there has been a countertrend in the ‘alternative’ sector, which has seen growing numbers non-waged workers who come from urban and suburban locations.

This argument that we elaborate on below emerges from our study of new forms of non-waged work on ecological farms. We conducted two province-wide surveys of Ontario farmers making use of non-waged workers and have drawn data from the Canadian Census of Agriculture to augment our own data set. We have also completed

over 80 semistructured interviews with farmers, non-wage workers, and industry observers (e.g., nonprofit organizations, lawyers, and researchers). Our broader research focuses on the dynamics, challenges, and possibilities associated with intern and volunteer labor on these farms. We explore the social, political, and economic forces defining such forms of work and the experiences of farmers and workers.

The Decline of Unpaid Family Labor

Harriet Friedmann explains that the “survival of the farm may well depend on the ability to invoke familial obligations for women and children to participate in labor in the present and for children to inherit and ensure the continuity of the farm” (1990, p. 208). For generations farms have been able to survive and, at times, outcompete larger capitalized operations by making use of the unpaid, and often unseen, work of women and children (Smith, 1985; Van der Ploeg, 2013). As Kubik explains, “Typically, women farmers are not paid for [various types of household and farm work] even though it subsidizes the farm and frees up a large portion of the farm’s consumption costs” (Kubik, 2005, p. 87). However, in the Canadian context the reproduction of farms through unpaid family work has perhaps reached its limits as family members are increasingly either abandoning farm life entirely and/or are engaging in off-farm work, which, as many have noted, doesn’t necessarily mean relief from their on-farm activities (Vail, 1981; Whatmore, 1991).

Over the past five decades in Canada there has been a steady decline in the number of unpaid family workers on farms and a concomitant rise in paid laborers. Cloutier notes, “In 1946, unpaid family workers were the second largest group [i.e. less than self employed farmers without paid help; more than paid workers and self-employed farmers

¹ While many women have worked on farms outside of a formal wage, at times they have received a share of farm revenues by virtue of their kinship relationships and also have shared the farm amenities they contributed to directly through their labor. At the same time, feminist contributions to the literature have signaled how much of women’s on-farm

work goes unpaid in a formal sense and have highlighted the power dynamics that creates such a situation. As such, we retain the term ‘unpaid’ out of fidelity to feminist scholarship that signals the gendered inequalities between who is formally ‘paid’ and ‘unpaid’ while recognizing forms of nonmonetary ‘compensation.’

with paid help] and represented 30% of all employment in [Canadian] agriculture” (2001, p. 3). However, by the end of the twentieth century, this was the smallest group relative to the other three. In the same period, paid laborers saw their share of farm employment jump from 12% to 42% (Cloutier, 2001). In Ontario specifically, paid employees now represent nearly 52% of those working on farms, while 43% are farm operators and 5% only are non-waged family workers (Statistics Canada, 2011). These changes stem in part from the consolidation and industrialization of agricultural operations, insofar as larger farms tend to require a higher number of paid employees compared to smaller operations. While an increasing number of women are now farm owners and/or operators, many are also working off-farm (Leckie, 1993; Trauger, 2004), there is no longer the same percentage of unpaid family workers supporting farms, at least in the conventional sector.

The Rise in the Use of Interns

Over the past two decades, growing numbers of internships and volunteer positions have become available to people seeking farm experiences and training in ecological production methods. While short-term volunteer positions have been available through programs like World Wide Opportunities on Organic Farms (WWOOF) for over 40 years, in the early 2000s farmers in Ontario began searching for a more reliable and invested labor force. At the same time, an increasing number of aspiring ecological farmers were seeking ways to build their knowledge and skills that were unavailable through institutional programs. Many of these individuals approached experienced farmers as potential mentors. Like-minded farms began establishing networks such as the Collaborative Regional Alliance for Farmer Training (CRAFT) and Stewards of Irreplaceable Lands (SOIL), which sought to link aspiring interns with on-farm training experiences and provide guidance and support to farmers and interns on expectations and best practices. In most cases, interns work as many or slightly fewer hours than farm owners and receive a small stipend, room, and board, as well as hands-on education in return.

From an initially small group of farms,

agricultural internships have exploded across Ontario (and across the global north). While it is difficult to assess exactly how many farms are using non-waged workers, our survey results suggest that at least 250 farms in Ontario are making use of interns and volunteers, and we hypothesize that the actual number could be significantly higher. Of the 139 farmers who provided complete responses to our surveys, the average farm had 4.2 non-waged workers, compared to 1 waged worker paid less than minimum wage and 1.1 paid minimum wage or more. In our sample there were 571 non-wage workers, but the total number across Ontario could be considerably higher. The challenges of generating a representative sample, however, make an accurate estimation difficult (see Ekers, Levkoe, Walker, & Dale, 2015).

As noted above, non-waged family members make up only 5% of the overall agricultural workforce in Ontario, whereas on ecologically oriented farms make up 65% of the workforce. These figures demonstrate that the use of non-waged work on “alternative” farms is significantly higher than on most farms across Canada. In this respect, while non-waged work on farms endures, interns and volunteers represent the new face of such work, replacing unpaid family labor. This shift is divided sectorially, however, as the numbers of non-waged workers are declining on “conventional” farms they are growing on ecological farms. These points are captured in the following remarks from an organic farmer in Ontario who was paying his son a salary to work on the farm: “Our son has just moved back home this year and he has a career in the film industry, but he’s come back to work part time and may work into being here full time. I’m not sure whether that will work. And our daughter is away...I don’t know. She may still farm. *I’ve often thought that we’ve replaced our children with apprentices [emphasis added].*”

These emerging patterns of non-waged work on farms also highlight changes taking place in how farming knowledge is being passed on to a new generation of farmers. Historically, farm children acquired specific, grounded knowledge through working on the farm while also becoming accustomed to the rhythms and demands of farm life. Similar forms of knowledge exchange are now

occurring through internship experiences that often span an entire season of production. As one intern explained: “I’m interested in learning some techniques that have been passed down through the generations [but this] is not a multigenerational farm.” Another intern expressed similar sentiments when asked why he was willing to work without a wage:

Because they’re experienced, people pay money to take this sort of thing from farmers with their experience. To get it for free, you know, room and board and everything, I’m on the up compared to some people. There are schools where you can go and spend thousands of dollars to learn these things that for a little isolation, I’m learning. [I’m working] with farmers that have 40 years experience—that’s a lot of time.

In these remarks we see how an exchange of knowledge is being facilitated by non-waged work arrangements. To note, many of the farmers we interviewed were also the products of internship programs and went on to establish their own farms, with access to land being the key hurdle they needed to overcome.

While there are many changes occurring in the agricultural sector regarding the dynamics of non-waged work on farms, there are also significant continuities at play. One of these continuities is the precarious economic situation of many ecological farms. Throughout history, small- and medium-scale farming has almost always amounted to a precarious livelihood, even if some industrialized operations are profitable. Our survey results suggest that ecological producers are struggling financially, with many reporting fairly meager on-farm incomes and revenues. We suggest that the use of interns and volunteers must be understood within this economic reality. Respondent farms reported average annual gross farm revenue of CA\$94,786 and a median of CA\$40,000. Notably, however, 54% of the respondent farms reported annual gross farm revenues of less than CA\$50,000. Perhaps more illustrative of the strained financial situation of the farms we surveyed is the personal

net on-farm income that farmers drew from their revenues. On average respondents reported a personal on-farm income of only CA\$13,629. Given the economic challenges that many farmers face, numerous survey respondents and interviewees noted that paying workers a minimum wage might push their operations into bankruptcy. One farmer and member of a nonprofit organization supporting internships reflected on this issue: “One thing I think is common to all of them [i.e., farms hosting interns], if we are being honest... whatever their motivations are, they’re solving a labor challenge on their farms.”

Another continuity between historical and contemporary forms of non-waged work is the gendering of this kind of labor. Historically, much of women’s work on farms has gone unpaid, and our survey suggests that 60% of interns and volunteers are women. Over 70% of the interns and volunteers we interviewed were women. When asked about why more women than men are interning and volunteering on farms, a woman farmer responded:

A lot of these farms are community development farms... They’re people-centric. It’s about teaching. It’s about interactions in the community. Women have been doing education and social work all along and this is education and social work and growing food. Well, who’s been doing gardens? It’s more traditionally been women so I don’t really think it’s surprising [that women are interning and volunteering].

Here we see how historical gender divisions of labor, and more particularly care work, are identified as the reasons behind the high percentage of women interns and volunteers working on farms. To briefly summarize, this research suggests that while non-waged work is an enduring feature of small- and medium-scale farms, there are both continuities and changes in the social character of the work.

Conclusion: A Sustainable Model?

To conclude, we want to point out a central question that must be explored by both practitioners

and researchers moving forward, that is, the sustainability of interns and volunteers as a means of supporting ecological farms. When done well, the exchange of labor for training is a provocative challenge to more formal and institutional forms of farmer training that can be misaligned with the desires of aspiring farmers and more established operators. However, those involved in the sector, and commentators like us, need to question whether ecologically oriented farms can continue to sustain themselves and even grow through relying on non-waged workers. And more importantly, should they? Are these arrangements fair and just for all involved, and can farmers and food movements square the ecological gains made on farms with questions of labor justice? One intern on a farm in western Ontario reflected on these issues: “The idea of sustainability behind the whole creation of the community supported agricultural model—like finding a sustainable way of farming, but having volunteers—is that really a sustainable way? Is it really going to last, this whole thing of having free labor?” The issues discussed in this brief are very much in motion and the questions above are being actively negotiated. It is clear that much more research and political discourse are needed about the labor required for producing a just and sustainable food system. 

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The Good Food Purchasing Policy: A tool to intertwine worker justice with a sustainable food system

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Abstract

Public procurement is a strategy to transform the food system into one that is more sustainable and just. The Good Food Purchasing Policy (GFPP), developed by the Los Angeles Food Policy Council in 2012, leverages taxpayer funds to support local producers, environmentally sustainable production practices, good jobs, humane treatment of animals, and healthy food. Based on the experience of developing and winning the adoption of the policy in Los Angeles, GFPP has the potential to bring together the various sectors of the food movement around a shared vision and strategy for change. In this reflective essay, we provide an insiders' look

into the policy, its impact to date, and its potential in the future.

Keywords

procurement, movement-building, food workers, sustainability, good food, GFPP, Good Food Purchasing Policy

Disclosure and Authors Note

Joann Lo is co-director of the Food Chain Workers Alliance. She co-chaired the working group of the Los Angeles Food Policy Council (LAFPC), which developed the Good Food Purchasing Policy. She also provides technical advice and support for the implementation of the GFPP in Los Angeles, and serves on the board of directors of the Center for Good Food Purchasing. She is also chair of the Leadership Board of the LAFPC. Alexa Delwiche facilitated the research and writing of the Good Food Purchasing Policy and Standards through the multisector stakeholder working group of the LAFPC and is now executive director of the new Center for Good Food Purchasing. This reflective essay is based on the authors' experience and observations in developing and implementing the GFPP.

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Introduction

In recent years, the sustainable food movement has begun to pay attention to problems that food chain workers face, such as poverty wages, dangerous working conditions, wage theft, and food insecurity (Bittman, 2015; Myers & Sbicca, 2015; Sbicca, 2014). It has not been clear how to address these problems in collaboration with the food movement in order to advance structural and political changes in the food system (Pollan, 2011). The Good Food Purchasing Policy, developed by the Los Angeles Food Policy Council, offers a model policy that brings together the various sectors of the sustainable food movement to work toward a common goal. In this article, we will discuss the development of the policy, its impact to date, and its potential for becoming a national model.

A number of authors have noted that the food movement is not unified. Some see multiple movements rather than one (Holt-Giménez & Wang, 2011; Pollan, 2010). At times, those in the food movement “work at cross-purposes” (Pollan, 2010, para. 11).

The potential for a unified food movement exists, however, and there are indications that such a movement may have already begun (Pollan, 2010, para. 12). The HEAL (Health, Environment, Agriculture, and Labor) Food Alliance was created in 2014 as an attempt to bring together the multiple sectors of the food movement. The HEAL Food Alliance is a national coalition of food movement coalitions and organizations anchored by the Movement Strategy Center, Real Food Generation, the Union of Concerned Scientists, and the Food Chain Workers Alliance.

As the food movement experiences increasing convergence, many recognize that consumer-oriented campaigns urging individuals to “buy local” or “buy sustainable” are insufficient to bring about systemic change in our food system. Over the last decade, procurement policies leveraging the large-scale buying power of food service institutions have become an increasingly popular tool in supporting local and sustainable food systems (Bartlett, 2011). In particular, policies focus on the role of government entities as major food buyers and their moral imperative to support a more equitable, sustainable, and healthy food system

when buying food for schools, hospitals, and public administrations with taxpayer funds (de Schutter, 2014).

The impact of these procurement policies is still unclear and questionable. There is insufficient attention paid to implementation, and it can be difficult to track purchases and verify if shifts are occurring in purchasing practices (Bartlett, 2011). More fundamentally, critiques center around the limited ability of procurement policies to transcend a single-issue area. Procurement policies have historically reflected the underlying tensions within the food movement because of the policies’ inherent trade-offs (Friedmann, 2007). Procurement policies typically emphasize local sourcing, nutrition, or, in some cases, environmental sustainability. The rights of workers are seldom, if ever, mentioned (Delwiche & Lo, 2013). The closest that institutions have come to monitoring food chain working conditions has been symbolic, through the adoption of sweatfree procurement policies by government institutions in many U.S. cities, including Los Angeles. Through a sweatfree procurement policy, public institutions commit to buying apparel from vendors and subcontractors that comply with domestic and international labor laws. However, resources are rarely put into enforcement of these policies. While some of these policies apply de facto to food, funding usually goes to enforcement of apparel contracts, rather than food. This is true of the city of Los Angeles’ Sweatfree Purchasing Ordinance.

The Good Food Purchasing Policy (GFPP), developed by the Los Angeles Food Policy Council, is groundbreaking because it equally embraces five overarching values (local, sustainable, fair, humane, and healthy) that together offer the food movement a holistic vision and framework for an equitable food system. Additionally, it focuses on supply chain transparency in an effort to document and verify progress toward reaching these values over time.

The Development of the Good Food Purchasing Policy

The Los Angeles Food Policy Council (LAFPC) was launched in 2010 based on the recommendation of then-Mayor Antonio Villaraigosa’s Los

Angeles Food Policy Task Force, which released a report called the Good Food for All Agenda (GFAA). Second author Delwiche was hired to staff the task force and then stayed on as the coordinator of the LAFPC. While the Office of the Mayor created the LAFPC, it is an independent nonprofit, largely funded by foundation grants. This independent structure with a close relationship to city leaders has proven important time and again when securing city, school district, or county support for LAFPC policy proposals.

Like other food policy councils across North America, the LAFPC was created with the recognition that a systems approach with deliberate cross-sector collaboration and communication was desperately needed to heal our broken food system. While this initial concept brought local food movement leaders together, the success of the GFPP demonstrated that it was possible to make change through a comprehensive approach to systemic issues. The momentum generated by this victory helped to fuel several other cross-sector policy initiatives within the city of Los Angeles, such as street vending, food waste, and land access for urban food production policies.

The LAFPC working group that developed the GFPP included representatives from different sectors of the food movement, and included organizations such as the Food Chain Workers Alliance, Natural Resources Defense Council, Compassion Over Killing, and the Los Angeles County Department of Public Health, as well as farmers, processors, distributors, chefs, large public and private institutional buyers, school food advocates, and faith-based leaders. While working group members shared the common goal of leveraging the buying power of large institutions to bring good food to low-income communities in the greater Los Angeles area, they each brought their own interest to the table. The concept of good food, defined as food that is healthy, affordable, fair, and sustainable, has emerged over the last decade as a unifying framework for many within the food movement. The LA Food Policy Council's working group sought to develop a holistic, yet practical, operational, and uniform definition for large institutions and their vendors in their efforts to procure more good food.

First author Lo, with the Food Chain Workers Alliance, looked at the potential policy as a tool to improve wages and working conditions for workers in the food system. Small and mid-sized local farmers hoped the policy could help them sell their products to the school district and the city of Los Angeles, while representatives of local produce distributors such as the corporate executive chef and director of culinary & business development for Coosemans LA Shipping supported farmers in this goal. A procurement specialist from the Los Angeles County Department of Public Health wanted more nutritious food to reach school children and seniors. Animal welfare organizations were interested in protecting the lives of animals. Environmental groups wanted a policy that would protect the environment and limit the use of antibiotics in meat production, among other goals.

None of these specific interests was necessarily in opposition to the others, and in the end each of the main participants in the working group strongly supported the proposed standards for other areas of concern in the policy. However, getting to this point was not always easy. At times during the process, there were heated exchanges among stakeholders. Tensions between support for fair labor practices on farms and support for small, local farmers rose to the surface, and the group struggled with the reality that few farms simultaneously support strong environmental sustainability, worker equity, and their own economic viability. With this recognition, the group decided to develop a tiered approach, with a requirement that a baseline standard be met in each of five value categories so that, for example, both labor rights and a preference for smaller and local farmers must reach a certain threshold. Few suppliers would meet criteria across all of the value categories, but together a variety of suppliers reflecting a range of principles and production practices, such as a large union farm or a small organic farm, would help an institution reach its goals of supporting a more equitable food system. The hope was, and still is, that more and more suppliers will be able to surpass the baseline in all five value categories as growing demand from public institutions pushes change in that direction.

The group deliberately structured the GFPP so

that it addressed each issue area meaningfully, eliminating silos with no issue left behind in an effort to advance the others. At the same time, members understood that there were mutual benefits to each of the five values. Working group members who advocated for food workers' rights recognized that by supporting sustainability, they also made progress toward their goal of creating safer workplaces, and people who worked in public health identified the ways in which safe workplaces and fair wages can improve health outcomes for food system workers.

The diversity of the working group and the members' areas of focus helped to create what we believe to be the most comprehensive institutional food procurement policy in the country.

The Good Food Purchasing Policy

The GFPP supports five values: (1) local economies; (2) environmental sustainability; (3) valued workforce; (4) humane treatment of animals; and (5) health and nutrition (see Figure 1). The tiered, points-based scoring system allows participants to choose which level of commitment best suits the Good Food goals of their organization. Participants are then awarded one to five stars based on

their total score.

Based on extensive research and a comparative analysis of procurement initiatives across the U.S., the GFPP is the only program of its kind in the country that requires a baseline standard to be met in each value category, so that institutions are not able to limit themselves to changes that are easy. Institutions must engage with difficult questions, such as how workers in their supply chain are treated or the public health, environmental, and animal welfare issues related to our current methods of livestock production to meet the global demand for meat. The goal of the GFPP is to give institutions an opportunity to have a transformative effect on the food system at every level.

For example, Institution A serves nutritious meals to low-income children. The institution would like to make purchases that support local businesses and well-paying jobs, so they have prioritized Local Economies, Valued Workforce, and Nutrition. They are satisfied meeting the baseline standard in Environmental Sustainability and Animal Welfare. The Center for Good Food Purchasing uses the scoring framework outlined in the Good Food Purchasing Standards to score an institution's purchasing data and assign points

Figure 1. The Five Values of the Good Food Purchasing Policy



Image courtesy of the Center for Good Food Purchasing.

within each of the five value categories based on its overall performance. Each of the five value categories has a baseline standard. To become a Good Food Provider, an institution must meet at least the baseline (equal to one point) in each of the five values; however, within each category there are three levels and more points are awarded for achievement at higher levels in each category, allowing institutions to earn more points in their high priority categories. Standards are based on third-party certifications and label claims that have been identified as meaningful and ranked by national experts in each category. Points earned in each category are added together to determine overall number of points earned. A star rating is awarded. Figure 2 shows how the scoring system works.

In the Valued Workforce category, the baseline standard is compliance with employment law and the core values of the International Labour Organization (Clean Clothes Campaign):

1. Freedom of association and the right to collective bargaining.
2. Elimination of all forms of forced or compulsory labor.
3. Abolition of child labor.
4. Elimination of discrimination with respect to employment or occupation; and

If a supplier is found to have serious health and safety and/or wage and hour violations within the past five years, Institution A must request information from that supplier about steps taken to mitigate past violations and prevent future violations.

To receive more points in the Valued Workforce category,

Institution A must meet the baseline standard and source at least 5 percent of its annual food spend from a supplier that meets the higher standards in Level 2 or Level 3. The institution is expected to increase this percentage to at least 15 percent within five years.

A farm or food business can qualify at Level 2 if the organization:

- Has a social responsibility policy, which includes: (1) union or nonpoverty wages; (2) respect for freedom of association and collective bargaining; (3) safe and healthy working conditions; and (4) prohibition of

Figure 2. GFPP Scoring Example



Image courtesy of the Center for Good Food Purchasing.

child labor, except as allowed by domestic law; and at least one additional employment benefit, such as (5) health care benefits; (6) paid sick days; (7) profit-sharing with all employees; or

- Is Fair Trade Certified (for international products); or
- Has Fair for Life certification

To meet Level 3, a farm or food business must:

- Have a union contract with its employees; or
- Be a worker-owned cooperative; or
- Have signed the Coalition of Immokalee Workers' Fair Food Supplier Code of Conduct; or
- Be "Food Justice-Certified" by the Agricultural Justice Project; or
- Be certified by the Equitable Food Initiative.

The baseline standard matched existing sweatfree procurement policies within the city of Los Angeles and the Los Angeles Unified School District. As discussed above, no resources were approved by the city council and the mayor to enforce the policy in these institutions' food supply chains. The GFPP fills this void by providing a mechanism for verification and enforcement through the Center for Good Food Purchasing.

The modest 5% target at Levels 2 and 3 was established with the recognition that the existing supply of "fair" food, as defined by the Good Food Purchasing Standards, would be relatively low and it would take time to build the market for it. It was also acknowledged that there is a perception that "fair" food is prohibitively expensive. GFPP implementation has helped to debunk this myth in two ways. First, worker wages account for such a small share of the final price consumers pay for food that slightly higher wages for food chain

workers translates to only a modest increase to the end price for consumers (Benner & Jayaraman, 2012). If we use union-produced food as a proxy for higher wages for workers, we find little to no cost differential between union and non-union food products. In fact, based on the Center for Good Food Purchasing's baseline analysis of food purchases by the city of Los Angeles and LAUSD in 2013, many institutions were unknowingly already buying these products (Los Angeles Food Policy Council, 2013), which leads to a second point: most union-made food products come from large-scale operations, which also benefit from economies of scale, resulting in lower prices for consumers. While many of these companies' environmental sustainability practices may be questionable, they are often industry leaders in terms of employee wages, benefits, and rights. The GFPP recognizes and works with the inherent trade-offs and paradoxes within our current food system.

Another hallmark of the GFPP is its requirement for supply chain transparency and third-party verification, which in our opinion is the first step for creating change in the food industry. Under the policy, institutions submit semiannual reports on all food purchasing records for minimally processed, single-ingredient items to the Center for Good Food Purchasing (CGFP).¹ The CGFP administers the Good Food Purchasing Program to verify compliance, provide technical assistance, and celebrate success. This reporting process requires vendors and distributors to trace a product back to the producer and provide the name of the farm, processing facility, and wholesaler. CGFP staff then research each supplier to determine where it fits in each value category. This research provides the basis for scoring how much Good Food an institution is purchasing and, therefore, how many stars it can receive. Included in the GFPP is an expectation for the institution to publicly report its progress in implementing the policy each year. The CGFP provides each institution with an annual

¹ The LA Food Policy Council developed and incubated the Good Food Purchasing Program, following the city and LA Unified School District's adoption of the GFPP. As of July 2015, the Center for Good Food Purchasing (CGFP), a

national nonprofit created to guide the national expansion of GFPP, began managing the Good Food Purchasing Program for LA-institutions, as well as all other U.S. institutions that adopt the GFPP.

score and progress report, which provides the basis for the institution's public report.

The Impact and Vision of the Good Food Purchasing Policy

Mayor Antonio Villaraigosa issued an executive order on October 24, 2012, requiring city departments with food budgets of US\$10,000 or more to implement the GFPP at the baseline level or higher. The city council of Los Angeles adopted a motion reaffirming this commitment and directing the chief administrative officer to report on implementation progress annually. A few weeks later, in November 2012, the board of the Los Angeles Unified School District (LAUSD) also adopted the GFPP.

The GFPP affects 750,000 meals served daily by LAUSD and the city of Los Angeles. In the years following adoption of the policy, we have seen positive results, largely due to its role in helping to shift the food purchasing decisions of LAUSD, the second largest food purchaser in California, with an annual food budget nearing US\$150 million. The GFPP's supply chain transparency requirement, focus on metrics, and outside verification by CGFP staff provide LAUSD with the opportunity to measure its progress over time.

LAUSD's participation in the GFPP has led to the redirection of at least US\$10 million for produce purchasing from local growers. In just two years, the district doubled the amount of its food budget spent locally to about 50%, which led to the creation of at least 200 new, well-paying food chain jobs in LA County. Jobs were created on farms, in fruit and vegetable processing, and in bread manufacturing and distribution (Watanabe, 2013; Policy-Link, 2015). The district also reduced its meat purchases by nearly 15% following the adoption of Meatless Monday and made a commitment to sourcing 100% antibiotic-free chicken by December 2016.

LAUSD's participation in the GFPP is having ripple effects on the business practices of other supply chain partners. LAUSD's produce and bread distributor, a company that provides produce and other food items for over three million school meals per day across the western U.S., has transformed its internal tracking systems of suppliers,

and suppliers that do not meet GFPP standards must commit to doing so or "are shown the door" (Leer, 2015). This distributor also brokered a relationship to work with sustainable wheat farmers in California to become the primary source of grain for baking products for the school district and for 115 other school districts for which the company provides food.

But what impact, if any, has the GFPP had on improving conditions for food chain workers? What may seem like small steps on the surface are actually unprecedented actions taken by institutions in monitoring working conditions along the food chain. Through a rigorous verification process, which includes an in-depth assessment of each supplier's production practices, such as size of operation, geographic location, label claims, third-party certifications related to any of the value categories, union contracts, and any federal, state, or local labor violations over the last five years, CGFP staff assess how supplier practices stack up against GFPP standards. This detailed assessment identifies food producers who have strong and poor records on safe and fair labor practices, which were never previously tracked either at the participating Los Angeles-based institutions or elsewhere. This knowledge has enabled administrators and elected officials to recognize problematic suppliers and start thinking about options for improving their supply chains. It has also revealed suppliers that offer their workers wages and benefits far above the industry standard, from whom institutions begin sourcing more.

In the case of LAUSD and per compliance with the baseline standard in the Valued Workforce category of GFPP, the district sent letters to vendors and suppliers with serious labor violations over the past five years, asking what steps were taken to address the documented violations and prevent future violations. These letters indicate to vendors and suppliers that the district is maintaining vigilance over its supply chain in terms of workers' rights. In the spring of 2015, citing the GFPP, the school board approved a United Farm Worker (UFW)-sponsored resolution, calling on Gerawan, a major California grower, to honor its union contract with the UFW. GFPP also contributed to higher wages and improved working

conditions for over 160 truck drivers in LAUSD's supply chain who recently joined the International Brotherhood of Teamsters union and negotiated a first contract in August 2015.

Most recently, the power of GFPP as a coalition-building tool and public accountability mechanism has been put to the test. At the end of August 2015, a multistakeholder coalition of local, state, and national organizations, organized and led by the Food Chain Workers Alliance (FCWA), successfully fought against LAUSD administration's decision to award new five-year chicken contracts to Tyson and Pilgrim's Pride, the two largest chicken processing corporations in the U.S. Part of the argument for recommending these contract awards, despite the companies' noncompliance with multiple value categories of the GFPP, was that these companies offered the best price for the district. Within five days of the public announcement of this decision, over 20 organizations sent letters to the school board members, and the FCWA also organized a call-in day for August 30, the day before the LAUSD board was set to vote on the chicken contracts. As a result of these letters as well as questions that LAUSD board members were raising internally in response, the administration withdrew its recommendation to the school board. At the end of October, the LAUSD issued a new request for proposals (RFP) for its chicken contracts to allow distribution companies to bid. This was one of the coalition's demands, since distribution companies were not permitted under the previous RFP and since three union distributors serve school districts in Southern California. The LAUSD board of directors was scheduled to vote on the new chicken contracts on March 8, 2016.

Potential National Impact

The GFPP and the supply chain transparency it requires have achieved two significant goals in Los Angeles that can serve as a model for the rest of the country. First, the GFPP has helped institutions make more informed decisions about the suppliers they would like to work with—those who represent and uphold their values. Second, the GFPP is increasing public accountability of elected officials by mobilizing constituents to demand that

the use of millions of dollars in taxpayer-funded food contracts approved each year reflect community values related to supporting local economies, environmental sustainability, fair labor practices, animal welfare, and nutrition for all, as well as provide the highest quality food to communities who need it most.

The GFPP is a model that can be adapted around the country. To this end, the LAFPC spun off the Good Food Purchasing Program in July 2015 to become its own entity, the Center for Good Food Purchasing (CGFP), to coordinate the national expansion. A coalition of national organizations, including the FCWA, PolicyLink, the Health, Environment, Agriculture, and Labor (HEAL) Food Alliance, and the International Brotherhood of Teamsters are working with food policy councils and local grassroots coalition to win adoption and implementation of the GFPP in cities and school districts around the country. Once the GFPP is adopted, the CGFP manages the policy to verify compliance, assist participating food-purchasing institutions in fulfilling their goals and commitments, and monitor and reward progress over time. So far, the GFPP has been funded by foundation grants. As the program expands and the need to become a self-sustaining model grows, institutions may be asked to pay a small fee to participate in the program, not unlike the Leadership in Energy and Environmental Design (LEED) Green Building Certification model.

Organizing to win adoption of the GFPP in the city and the school district of Chicago has already begun. In February 2015, the FCWA, in partnership with the Chicago Food Policy Action Council (CFPAC), began asking local organizations in Chicago to sign on to a letter to Mayor Rahm Emanuel and the opposing mayoral candidate Chuy Garcia to publicly endorse GFPP. Both did. Those 25 organizations and others that the FCWA and the CFPAC have since recruited are creating a multisector coalition to ensure that Emanuel, who was re-elected in March 2015, follows through on his endorsement. Upon the request of the mayor's office, the FCWA and CFPAC, with technical assistance and verification provided by the CGFP, are working with the Chicago Park District to conduct a pilot program implementing the GFPP,

even before the city has officially adopted the policy. Organizations in additional cities across the country are in various stages of building coalitions and advancing the GFPP.

Conclusion

If efforts to create a shared collective agenda prove successful, a unified food movement holds tremendous potential for healing our food system. The Good Food Purchasing Policy offers one such model.

We believe that purchasing food based on the GFPP framework is a pathway for building sustainable and socially just regional food systems that revitalize local economies so that all residents can prosper. We have already witnessed that “Good Food” purchasing provides access to healthy food for low-income families and communities of color, which can help address issues of hunger and obesity. As shown in Los Angeles on a small scale to date, “Good Food” purchasing has the potential to create hundreds of good, high-quality jobs throughout the food chain, from production and processing to distribution and food service. Living-wage jobs result in significant long-term benefits to workers, including increased wealth, quality of life, and purchasing power for food, shelter, and health care. Our vision for the GFPP is that the policy will shift farmers and other producers to use more sustainable production practices that not only conserve natural resources, but also reduce farm-worker and consumer exposure to harmful chemicals, and support a safe drinking water supply for agricultural communities. Reduced reliance on antibiotics for animal production, another standard in the GFPP, should result in more humane conditions for livestock while minimizing the spread of antibiotic-resistant bacteria to humans through meat consumption. Future research on the cost differentials between conventional food products and food products embodying a range of “Good Food” attributes in participating institutional supply chains will help build the case for broader adoption and implementation of the GFPP. Additionally, we would like to use the data we collect from institutions to calculate in the aggregate the economic, environmental, health, and social

impacts related to these purchasing shifts in order to document in concrete terms why procurement matters.

While the GFPP leverages institutional buying power to effect food system change, more importantly, the policy establishes an opportunity for multisector coalitions to work together around a shared vision for change. Using a replicable model focused on ensuring that public food contracts reflect the values of their constituents, the GFPP serves as a tool to help unify diverse sectors of the food movement both locally and nationally. In doing so, the GFPP can help grow a food movement that has been gaining traction over the last decade. The campaign to win adoption and implementation of the policy can set the stage for more collaboration among organizations and individuals from diverse sectors. 

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Situating on-farm apprenticeships within the alternative agrifood movement: Labor and social justice implications

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Abstract

The beginning farmer phenomenon offers an array of possibilities for facilitating social, economic, and political changes in the agrifood system. Apprenticeships within both formal and informal institutions are increasingly important in the education and social connectivity of beginning farmers. Although apprenticeship opportunities are popular for “new farmers,” “aspiring farmers,” and their on-farm hosts for a number of reasons, a critical approach is necessary in the design and nature of

these experiences, in light of inequitable structural conditions that may reproduce potentially insurmountable barriers to new farm entry and sustainability. Drawing upon alternative agrifood movement discourse and social reproduction at work within critical traditions of sociocultural learning, we illustrate on-farm apprenticeship learning from a critical perspective in order to better describe and understand this form of beginning farmer education. We share findings from a mixed-methods empirical study of on-farm apprenticeship learning in Virginia, where we focus on the practices, structures, and institutional activity that inform on-farm apprenticeship experiences. This study sought to answer the questions: what kinds of on-farm apprenticeships

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are available, to whom, and in what ways? Also, what are important educational practices, structures, and/or institutions that support on-farm apprenticeship learning? Data are derived from qualitative interviews of host farmer/educators, on-farm apprentices, and new farmers who were recently apprentices; and from a quantitative survey of Virginia farmers who host apprentices. Our findings situate on-farm apprenticeship within a broader discourse about farm labor, as we open the discussion surrounding the relationship between difficulties experienced by small, diversified farms in meeting their labor needs, and the growing popularity of the apprenticeship model on individual farms. We also explore how cultural whiteness within alternative agrifood movements (AAMs) translates to low inclusivity of historically underrepresented groups, and consider how the low- or no-pay model for the tenured duration of the apprenticeship may affect structural barriers to entry for members of low socioeconomic groups, within on-farm apprenticeship and thus within beginning farmer education. Through the themes that emerged in our study, we posit considerations for social justice implications of on-farm apprenticeship, offer several recommendations for the practice and planning of on-farm apprenticeship, and lay groundwork for future exploration of the ways in which the apprenticeship model may reproduce equitable learning spaces.

Keywords

adult education, alternative agrifood movement, apprenticeship, beginning farmer, farm labor, social justice

Background

The beginning farmer phenomenon has developed into a burgeoning number of programs, policies, and grant opportunities, which provide the structural footing to ease barriers and create possibilities for new and sustainable farm entry (Ahearn, 2013; Niewolny & Lillard, 2010; Sureshwaran & Ritchie, 2011). The perspectives and politics within beginning farmer program development and training are many, and include issues ranging from fair and equitable access to labor, access to scale-appropriate markets, start-up capital for resilient

economic performance, land tenure and farm succession, and support structures and knowledge systems for ecological farming practices (Ahearn & Newton, 2009; Henderson & North, 2011; Parsons, et al., 2010; Thilmany & Sureshwaran, 2011). Despite these mounting challenges, beginning farmers and ranchers are diverse in age, racial, gender, class, and ethnic distinctions, and vary widely in farm scale, scope, and geography (Meyer, et al., 2011). Beginning farmers on average also operate smaller farms, in both size and gross dollars, compared to established farmers (Ahearn, Yee, & Korb, 2005). Although they tend to be younger than established farmers, about a third of beginning farmers are at least 55 years or older (Ahearn & Newton, 2009). The average age of a principal farm operator is now 58.3 years, an increase of 1.2 years since 2007, continuing 30 years of steady increases (U.S. Department of Agriculture, National Agricultural Statistics Service [USDA NASS], 2014). At least 40 percent of all U.S. farms are operated by beginning farmers, limited-resource, and socially disadvantaged farmers, (Nickerson & Hand, 2009; USDA, 2014). Beginning farmers thus are increasingly recognized as a distinct group with different programming needs when being targeted by agricultural service providers for education and technical assistance efforts.

The beginning farmer conversation has not grown in isolation from other agrifood system issues and discourses. Grassroots, policy, and academic circles increasingly are creating ample spaces for the emergence of alternative agrifood movements (AAMs) (Allen, 2004; Constance, Renard, & Rivera-Ferre, 2014; Goodman, DuPuis, & Goodman, 2012). The alterity of this movement stems from its challenge to dominant agricultural trends of large-scale, centralized processing and distributing models; increased farm mechanization; reliance on input-intensive, low-diversity biophysical production practices; unexamined ethical arrangements; and different considerations for the nutritional and aesthetic qualities of food (Constance, et al., 2014; Goodman, et al., 2012).

Within AAMs, we see initiatives with diverse emphases, ranging from economic development, social justice, and environmental sustainability, to

those that integrate a wide range of system-level issues that embrace expressions of local/regional food systems (Clancy & Ruhf, 2010), community food systems (Slocum, 2007), and community food security (Hamm & Bellows, 2003). Beginning farmers' attention to these issues undergirds, albeit in complex ways, beginning farmer manifestations of practice and their transformative potential. This, in turn, reciprocally informs and re-informs agrifood discourses. These discourses emphasize the ways beginning farmers and other actors play a significant role in contributing to the vitality of small and midsize farms, production and distribution of locally and regionally produced foods, and ecological resilience, and providing access to socially just, healthful food, in both urban and rural landscapes.

Apprenticeships are emerging in various contexts as social seedbeds of cultural connections for the next generation of agriculturalists. Informally and/or nonformally structured on-farm apprenticeships are an increasingly popular approach to beginning farmer education (Hamilton, 2011; Kalyuzhny, 2012; Niewolny & Lillard, 2010). For the attention they have received, however, there is relatively little empirical and theoretical understanding of on-farm apprenticeship experiences (especially those outside of college- and university-based student farms), and the implications they may have for the reproduction of structural conditions that govern farm entry, continuance, and long-term viability.

The purpose of this paper is to begin to illuminate and describe on-farm apprenticeships from a critical perspective, rooted in AAM discourse. To that end, we illustrate findings from a concurrent mixed-methods study of on-farm apprenticeship learning in Virginia, in which we viewed on-farm apprenticeship learning from the lived experiences of apprentices and host farmers. This study sought to answer the questions: what kinds of on-farm apprenticeships are available, and to whom, and in what ways? Also, what are the most important educational practices, structures, or institutions that support on-farm apprenticeship learning? Through analysis of empirical data of the phenomena, we posit considerations for social justice implications of on-farm apprenticeships and lay groundwork for

further exploration of the ways in which the apprenticeship model may reproduce inequitable learning spaces in agriculture.

The Socio-Historical Context of Beginning Farmers

As the United States experiences a long-term rising average age of farmers (Dimitri, Effland & Conklin, 2005), fewer beginning farmers are entering agriculture each year (Ahearn, 2013). There is a growing awareness that in order for new farmers to enter farming, agricultural education systems and policies must better address emerging issues for beginning farmers. Ruhf (2001) and others (Ahearn & Newton, 2009; Henderson, & North, 2011; Parsons et al., 2010; Thilmany & Sureshwaran, 2011) have identified key challenges as access to financial capital and credit; suitable farmland and tenure options; size-appropriate and economically viable markets; and culturally appropriate networking, training, and technical assistance. In response to the call for better beginning farmer preparation, in recent years a body of federal and state programming and policy has arisen (Sureshwaran & Ritchie, 2011). For example, the Virginia Beginning Farmer and Rancher Coalition Program is a statewide coalition working to develop, coordinate, and offer curriculum and training, resources, farmer-to-farmer mentoring, and capacity-building for educators and service providers; countless other beginning farmer initiatives have emerged over recent years to provide adult education and resources for a diversity of beginning farmer communities, and to address start-up and sustainability aims (Niewolny & Lillard, 2010).

Alternative Agrifood Movements

It is clear that beginning farmers face a complex web of barriers. However, the ways in which these challenges and issues are discursively and politically brought to the forefront are equally important in order to enable new material and political possibilities in our farming communities (Niewolny & Lillard, 2010). For instance, similar to a number of agrifood system experiences in recent years, the beginning farmer phenomenon in North America has been informed in part by the development of alternative agrifood movements (Allen, 2004, 2008;

Niewolny, 2007; Niewolny & Wilson, 2007), which envision an alternative to the dominant agrifood system. AAMs reflect an array of issues and include a diversity of actors who challenge the dominant structures and modes by which food is produced, processed, delivered, and consumed (Carolan, 2012; Lyson, 2004; Sbicca, 2012). AAM discourses also critically engage with the politics of labor, land, markets, and knowledge. New spaces thereby have emerged as alternatives to the dominant food system; there has been a groundswell of academic, policy, and grassroots activity and critique in response to the social, economic, and ecological unsustainability of the modern industrial agrifood system (Carolan, 2012; Sbicca, 2012). For Constance, Renard, and Rivera-Ferre (2014), the AAM discourse comprises four domains in which program and policy activity emphasizes continued system change: improvements to the biophysical environment; support for viable agrarian communities; concern for quality of food (nutrition and taste); and emancipation and social justice aims. AAMs and their material realities, however, have been criticized for their own injustices and non-inclusivity (Allen, 2004; Guthman, 2008a; 2008b; Hinrichs & Allen, 2008; Slocum, 2007). For instance, Slocum (2007) calls out the often unexamined cultural whiteness of AAMs. For Guthman (2008a) and Allen (2004), the issue of inequality embedded within AAMs is a core concern; therefore, the manner in which we focus attention and act on racial, gendered, and class relations within alternative agrifood systems and processes is increasingly significant. For example, farm labor and farmworker issues are becoming increasingly visible within the literature (Allen, 2008; Carolan, 2012; Cavalieri, 2011; Guptill, Copelton, & Lucal, 2013; Holmes, 2013). Lavin (2009) and Guthman (2008b) write about how AAM discourse may unwittingly embrace and reinforce hegemonic neoliberal dogma. Relatedly, Hinrichs and Allen (2008) are concerned with the way in which AAM activity often excludes the voices and experiences of those who lack the economic wealth to fully and equitably participate. These critiques underscore the fact that the AAM discourse, widely defined, is laden with social justice and anti-oppression concerns (Carlisle, 2014;

Feenstra, 2002; Sbicca, 2012) in a reimagining of our relationship with food (Guptill, et al., 2013).

In many ways, AAMs have made spaces for alterity and possibility (Goodman et al., 2012). We argue that the expressions of the values, practices, and material outcomes of AAMs have important implications for beginning farmers, who must navigate this labyrinth. With this movement as our frame, we now turn toward one aspect of the beginning farmer experience—on-farm apprenticeships—and how they are situated within the beginning farmer phenomenon.

Apprenticeships as Sites of Social Reproduction

An apprentice is, generally, an indentured novice learner who works alongside, pitches in, observes, and interacts with an expert, which ultimately leads the novice to mastery in a given set of skills and knowledge (Paradise & Rogoff, 2009). Individual farms throughout the U.S. have been increasingly implementing apprenticeships (Niewolny & Lillard, 2010), occasionally with technical support from Cooperative Extension and/or nonprofit entities (see, for example, Carey et al., 2006). They may be more common on small, labor-intensive, sustainability-oriented farms (Endres & Armstrong, 2014; Hamilton, 2011; Pilgeram, 2011; Powell, 2007), who may view apprentices as a critical source of inexpensive farm labor (Pilgeram, 2011; Kalyuzhny, 2012; Wood, 2013).

Apprenticeship-type programs also are implemented increasingly on the student farms of colleges and universities. Experiential learning within apprenticeship promotes horizontal learning opportunities (Leis, Whittington, Bennet & Kleinhenz, 2011; Parr & Trexler, 2011). While apprenticeship programs on student farms at colleges and universities have been demonstrated to be successful in formal higher education, few studies have examined the learning in apprenticeship programs on individual farms.

On-farm apprentices are learning by doing, by experience, *in situ*. Niewolny and Lillard (2010) call for more focus on participatory, situated, and experiential learning approaches that integrate beginning farmer knowledge with, in, and from lived experiences on-farm, as in an apprenticeship. In embracing a situated view of learning,

apprenticeship learning is thus a means to explore the construction of socially structured and culturally mediated processes of knowledge and power (Lave, 1988). Because apprentice learners co-construct meaning and identities through social negotiation with actors and structures, there is potential for unreflective social reproduction of existing power relations (Dewey 1938/1986; Foley, 1999; Freire, 1972).

Therefore, important questions have been raised about the political expressions that occur in and/or from on-farm apprenticeship experiences. While small farmers may depend on apprentices as a source of inexpensive labor, the low pay or lack of pay for the duration of the apprenticeship may create financial disincentives for would-be participants from socially disadvantaged groups (Pilgeram, 2011; Wood, 2013). On-farm apprenticeships, if located within AAMs (as Hamilton [2011] and Pilgeram [2011] suggest), may share the problematic race- and class-based imbalances found in AAMs (Allen, 2004; Etmanski, 2012; Guthman, 2008a; Hinrichs & Allen, 2008; Sbicca, 2012; Slocum, 2007). For example, as Bourdieu (1984) theorizes, social preferences are often influenced by class habitus, an often unconscious socialization of skills, preferences, and meanings, formed from social interaction and informed by our social position. Althusser (2006) writes that there are many social forces that act unconsciously to perpetuate value systems that maintain the dominant social order. Following the work of Giroux (1992), Lather (1991), and Freire (2005), learning is not a politically neutral act. Instead, it is laden with cultural politics that may enact hegemonic narratives and validate dominant knowledge regimes, at the expense of marginalizing less visible ways of knowing. Apprenticeship, therefore, from this radical educational view, is a charged political ground upon which socially reproductive forces play out, and so it requires further attention.

Thus, if on-farm apprentices are steeped in a particular social system, with possibilities for race- or class-based inequities, they may unknowingly contribute to their replication. Our research is therefore oriented to problematize and examine on-farm apprentices, and consider how the activity

of on-farm apprenticeship is situated within the dynamics of AAMs and food system politics more widely. We seek here to provide enough momentum for further analysis and exploration, toward improving on-farm apprenticeship practice in the long term.

Methodology

Given the dearth of empirical research into on-farm apprenticeships for beginning farmer education, we undertook an exploratory, descriptive study. The study was informed by the multiple realities within Lincoln and Guba's (2000) historical realist ontology and transactional/subjectivist epistemology, while embracing Deweyan pragmatism (1938/1986). Framing the study as such, we chose to employ a concurrent mixed-methods approach in order to view on-farm apprenticeships within both qualitative and quantitative paradigms (Creswell, 2009). We employed Greene's (2007) stance of complementary strengths, where the independent datasets were used in tandem to infer results.

Qualitative data allowed us an in-depth look into the lived experiences and activities of those involved in on-farm apprenticeships. Quantitative data, as a backdrop for the population under study, enabled us to examine the likely incidence and prevalence of lived experiences and activities, so we could judge their importance in agriculture more holistically. Interview protocols and the survey instrument were derived from a content analysis of three handbooks or guides (Jones, 1999; Mills-Novoa, 2011; Powell, 2007) aimed at advising farmers who host apprentices. For purposes of this study, an on-farm apprentice is defined as someone who is an apprentice, intern, on-farm student, etc.; is over 18 years of age; can be paid or unpaid; and importantly, for whom there is an express agreement that the farmer will teach them how to farm.

The geographic scope of the study was the Commonwealth of Virginia. Participants for both the survey and interviews were recruited through email distribution lists operated by Virginia Cooperative Extension, the Virginia Beginning Farmer and Rancher Coalition Program, the Collaborative Regional Alliance for Farmer Training (CRAFT), ATTRA, and at agricultural events such as the

Virginia Farm to Table Conference, the Virginia Biological Farming Association Conference, and Virginia State University's Small Farm Family Conference.

The qualitative strand consisted of semistructured interviews with on-farm apprentices ($n=5$), farmers who host apprentices ($n=5$), and farmers who were recently on-farm apprentices ($n=2$). Interviews lasted from 50 to 82 minutes, were audio-recorded, transcribed verbatim, and coded using Atlas.ti software, via a semi-open coding scheme (Hsieh & Shannon, 2005). The interviews and coding process were based around theoretical constructs of policies and institutions supporting on-farm apprenticeships, backgrounds of participants, educational and teaching practices, constructs of learning theory, and values and beliefs. Please see Appendix A for the interview protocol.

The quantitative strand consisted of a self-administered survey of Virginia farmers who host apprentices. Survey instrumentation followed Babbie (1990, 2010) and collected data on apprentice characteristics, details of the apprenticeship program, and background of the host farmer and farm. The survey was disseminated online and in paper form, and elicited a total of 55 responses, with 45 responses ultimately validated. Each response represents a farm that hosts apprentices in Virginia. The precise survey response rate is unknown, because agricultural service providers assisted with dissemination to their contacts. At the time of the survey, only 104 farms that host apprentices could be identified in Virginia; thus 43 percent of known host farms provided valid responses. The survey was disseminated in person at statewide farmer events, and via email, with two follow-up email reminders in an effort to increase the number of responses. Survey data was then compiled and analyzed in Statistical Package for Social Sciences (SPSS) software, using mainly descriptive statistics and paired sample t-tests (2-tailed) where appropriate. Please see Appendix B for the survey instrument.

The qualitative and quantitative data sets were mixed in the analysis phase of the study. Results of each dataset were used together complementarily to infer an authentic description of on-farm apprenticeships (Greene, 2007; Lincoln & Guba,

2000). In this way, both sets of data were triangulated to derive meaningful results to answer our guiding research questions.

Findings

On-farm apprentices and host farmers shared information about their backgrounds, their experiences learning and/or teaching on the farm, beliefs and values about the agrifood system and their aspirations as they relate to educational practices, structures, or institutions that support on-farm apprenticeship learning. Due to the exploratory design of this study, findings are not intended to be generalizable, but they may be considered to represent the participants in the study, each in his or her unique position in Virginia. Findings are shared below.

Who Hosts On-farm Apprentices?

Farmers who responded to the survey ($n=45$) were mainly the principal operators of the farms hosting the apprenticeship program (87.5%), while other respondents were in management roles on the farm. In the survey, 100% of farmer respondents self-identified as White. There was a roughly even split between female (45%) and male (55%) farmers who completed the survey. Of farmer hosts, 92% have attended some institution of higher education, and 77% have earned college degrees. Also, 19% of farmer respondents have earned advanced degrees from institutions of higher education.

Survey respondents were asked to report their motivations for hosting apprentices on a 4-point Likert scale from "not important" to "very important." A paired-sample t-test (2-tailed) was used to compare answers, thus determining significant consensus within a response. Paired sample t-tests (2-tailed) showed that the top motivation by far ($p<0.01$) was "I need labor for my farm," which 98% rated as "important," and 73% rated as "very important." As one farmer put it, apprentices may be seen as sources of "cheap labor":

There's people who have a small farm, and are often just starting out, and are still small, and they want labor, and they think that they can offer some sort of educational experience in return, for cheap labor.

(Farmer)

Another farmer further stressed this point:

And so make no bones about it, they're here to operate the farm. (Farmer)

Another farmer also spoke of apprentices as an inexpensive labor source:

They're going to work hard here, um, you know, at not a lot of pay. (Farmer)

Also, the following apprentice spoke about being treated like an employee, but not getting paid as well as an employee would:

You kind of start to think about it, and it's like, well, I'm not technically an employee. I'm an apprentice. You know, I'm getting paid, like, maybe five bucks a day for this work. How much can you enforce that type of labor restrictions on me, you know? We were apprentices treated like employees. And I think that's true of a lot of farms.
(Apprentice)

So survey and interview data indicate that responding farmers viewed apprentices as a source of inexpensive farm labor.

In general farmer respondents hosted apprentices on small, diversified farms, which were diversified in production as well as in marketing. The reported median annual sales volume of host farm respondents was US\$60,000. The majority of survey respondents were on fewer than 50 acres (20 hectares) of total land farmed (leased and owned). Survey respondents also tended to grow a diverse range of products, with the majority raising vegetables, poultry-based products, and fruits. Respondents sell an average of three types of agricultural products, a figure which counted all vegetables as one product, and all fruits as one product. Of farmer educator/host respondents, 74 percent raised vegetables, 51 percent raised poultry and eggs, and 49 percent raised fruits. Very few grew soy, corn, or wheat. Survey and interview respondents also showed a tendency towards diversified marketing strategies and direct, local

marketing of their products. Respondents reported marketing through, on average, 2.9 different outlets, which were most commonly community supported agriculture operations (CSAs), wholesale outlets, farmers markets, and restaurants.

Who Are the Apprentices?

Farmer survey respondents were asked to report demographic data on current and former apprentices. They reported a fairly even split between female (56%) and male (44%) apprentices, and average age of 24.0 years. Apprentices showed low reported racial diversity, with apprentices mostly reported as White (93.9%), followed by apprentices of Spanish, Hispanic, Latino origin (2.3%), Black or African American background (1.8%), Asian background (1.8%), and less than 1% of apprentices were of American Indian, Alaskan Native, Native Hawaiian, or Pacific Islander background. All participants in interviews identified as White, despite attempts to recruit a diverse group for interviews. Thus both on-farm apprenticeships and farm host participants in this study were disproportionately White.

The data also reflect a high level of formal educational attainment among those involved in on-farm apprenticeships. Eighty-four percent of on-farm apprentices have attended institutions of higher education, while 64 percent have earned a college degree.

Additionally, host farmer survey respondents reported that apprentices are typically not from a farming background, and they do not have farmland in the family that they may inherit. Very low standard deviation around these responses indicates significant consensus. Respondents also reported that apprentices typically had between zero and two years of farming experience prior to starting the apprenticeship program, with the average experience being four months; the mode (most common) response was 0.0 years of farming. The data therefore suggest that apprentices had little experience with farming prior to starting their apprenticeship programs. Interview data also suggests this conclusion. One farmer stated:

Interviewer: So do you think most of the apprentices are from farming backgrounds, or are they—?

Farmer: *I think most of them are not...But it does seem like many people in the organic, sort of sustainable movement, smaller-scale are not from that background.* (Farmer)

The above farmer not only reinforced that the association of apprenticeships with a “sustainable movement” but asserted that apprentices are often not from a farming background. One apprentice described his perception of the background of most apprentices:

I grew up in the city and I had no experience with farming for most of my life, and then my first exposure to it was in college...Most [apprentices] are more like me, and a little bit of college community garden volunteer stuff, where they really didn't know much. Like you don't know anything at that point. And some have had like up to two seasons on organic farms, or like college farms. (Apprentice)

According to this apprentice, his background was typical of other apprentices, who do not have a farming background. Thus both survey and interview data convey participants' sentiments that apprentices normally have little experience with, and little prior access to, agriculture.

Additionally, interviews suggested that the physical and financial circumstances surrounding the apprenticeship experience will exclude those who lack funds. In interviews, apprentices and host farmers discussed the need for savings or other financial support in order to complete an apprenticeship. The below apprentice discussed costs associated with the tenured duration of an on-farm apprenticeship:

There's still transportation. Usually you have to own your own vehicle if you want to get off the farm... you know, there's gas [you need to buy]. While I was there we could eat whatever vegetables we wanted, but there was still a decent amount of food expenses to eat well. Um, so I mean, I think you could do it...But if you think of somebody who might have come from a low-income or single-parent family, they want to be a farmer...they probably need to work a job that pays them. (Apprentice)

The apprentice above reflected on the costs associated with receiving no or low pay for the duration of the apprenticeship, and that it would likely not be as possible for members of low socioeconomic groups. The below on-farm apprentice described her thoughts related to the financial realities of being in the apprenticeship:

The people who can afford to take the financial risk of doing apprenticeships are people who have either done a great job at saving money, or have had the support of their families while they're in school or while they're in the apprenticeship. And so that makes apprenticeships only accessible, usually, to people who come from well-off backgrounds. (Apprentice)

In the above, we see apprentices reflecting that they would not be able to enter an apprenticeship if they lacked the financial security from funds derived elsewhere.

Structure of Apprenticeship Programs

Host farmers who responded to the survey reported that the average length for the apprentice on the farm was 20 weeks, but this varied widely, from one week to one year. Respondents hosted, on average, two to three apprentices on their farm at one time. Approximately four out of five respondents provided some sort of housing for apprentices, and approximately half of farmers provided on-farm housing in a separate building from their own homes. Although survey respondents agreed highly with the statement, “I provide stipends or other monetary compensation for apprentices,” interview data uncovered the theme that apprentices, while perhaps receiving some compensation, are often paid less than minimum wage. One apprentice discussed low pay:

[Pay was] less than minimum wage, when you add up all the hours. It was a stipend...I think it was like a few hundred dollars a month, or 500 dollars a month. (Apprentice)

Another apprentice described low pay and working conditions:

[Farmers] pay their workers 200, maybe 300, 400 dollars a month with very basic living quarters, so that they can make a profit... You're working 50, 60 hours a week. (Apprentice)

In this view, both survey and interview data suggest that some apprentices were receiving pay, but likely less than minimum wage.

Survey respondents were asked to rank how often they provided certain educational activities to apprentices on a four-point Likert scale. Overall, farmers were verbally explaining and demonstrating tasks, working side by side, and giving one-on-one feedback, rather than providing school-like or written activities ($p < 0.01$, via paired sample t-test, 2-tailed). However, apprentices had mixed reports about the focus on work as education. Some apprentices spoke positively about the farm work:

That's what I loved about the farm apprenticeship, is like, what better way to learn to farm, than to farm? It gets ingrained in your muscles... You learn it in your body. (Apprentice)

In contrast, others critiqued the focus on labor over learning:

When you go to a commercial organic farm apprenticeship, you're not going to learn that much, because the farmer is focusing on using you as a laborer, and not focusing on teaching. (Apprentice)

The farmer below echoed the concern that using apprentices as farm labor is often a problem for the apprentice, while farmers “need the labor,” and have few options to meet labor needs:

[Host farmers] know they need the labor, they know an apprentice is low cost, you know, when you're talking about dollars, but it doesn't always work out. Like maybe they're not really good at communicating, or teaching, you know, or like I said, the living situation is just very bad for the intern, or the intern thinks it will be much more romantic than the actual grunt work is going to be, you know? (Farmer)

Another participant addressed her systematic concerns with the common use of apprentices as labor, pointing to larger problems beyond the individual farm scale:

The apprentices want to learn as much as they can, but the farmers are deriving their workforce off of young people wanting to learn for next to no money. And that's how sustainable agriculture is being successful right now... and I don't know if that's the type of farming system that's going to make it in the long run. (Apprentice)

In this apprentice's words, farmers are indeed seeing apprentices as an inexpensive source of labor, yet those practices may not “make it in the long run.” Below an apprentice showed awareness of the fact that the labor for low or no pay makes the farming system possible:

Yes, a farmer is giving you an education, but if there were no apprentices, the farm wouldn't be able to exist. So in sustainable agriculture, farmers are completely dependent on this apprenticeship. (Apprentice)

In the above, we see apprentices reflecting on their financial situation, and both farmers and apprentices reflecting on the primary role of apprentice as farm laborer. Linking survey and interview data together here supports the idea that the host farmers viewed apprentices as inexpensive labor for the farm upon which they may come to depend.

Apprenticeships as Embedded in Alternative Agrifood Movements

Apprentices and farmer hosts alike invariably showed knowledge and consideration of AAM discourses, as described by (Constance, et al., 2014). In their interviews, apprentices shared a feeling that they were not just learning farming but were a part of the activities of the larger food system, in which they are also intellectually interested. One apprentice put it simply:

So that's a little bit about me, a little bit about how I got into this food system world. Beyond that, just

my own personal interest with local foods and eating healthy and cooking and connection to food.
(Apprentice)

This apprentice described not only how she got involved in an apprenticeship but how she felt that she was a part of a larger body, which she characterizes as a “food system world.” Many apprentices also explained their entry into agriculture through a critical engagement with the food system in formalized education, such as a college or university. This apprentice explained her interest:

So when I went to [University], I began to kind of learn about factory farming and food systems, and of course instantly became a vegetarian, and a food rights activist, and just started really educating myself about what was happening in the world.
(Apprentice)

The above quotation demonstrates the interplay between learning about broader food system issues in an abstract, conceptual way, and desiring to engage with the food system hands-on. As one apprentice said:

I haven't quite determined what my role in this movement will be yet...I know that I want to live my life by those ideals of sustainable agriculture, and be a part of the food process, the journey.
(Apprentice)

We see that this apprentice considered herself to be in a movement. The next apprentice also stated how his interest in apprenticeships was oriented not merely around obtaining training to an end, but that it was also an expression of his involvement with AAMs:

That was a huge driving force, was to figure out how to live in a way that we could have that world...less pollution, more biological diversity, cleaner world, healthier people. (Apprentice)

The apprentice above was motivated to undertake an apprenticeship due to his consideration of the environment and food-quality concerns

raised and publicized by AAMs (Constance, et al., 2014).

Farmers also expressed that they view hosting of on-farm apprentices as informed by AAMs, and also were knowledgeable and conversant in AAM discourse. One farmer, when explaining why her farm decided to host apprentices, said:

That's the power of small-scale, really localized sustainable—meaning biological, ecological methods...We believe in this so wholeheartedly that this is a good thing, for our country, our communities to feed ourselves, and it's not going to happen without deliberate education and training about these methods...and we wanted to contribute to that.
(Farmer)

This farmer explained the desire of her farming partner and herself to spread their type of farming, which is driven by critical engagement with the agrifood system. The statement evokes the agrarian question of AAM discourse in her expression of value in community, while also echoing the environmental question in the value she placed on “biological, ecological” methods (Constance, et al., 2014). The next farmer shared:

When [my farmer partner] heard what Will Allen was doing, he was very interested in working with kids here on the farm. And it's a good place to bring them, and we think sticking your hands in the dirt and doing stuff like that is good therapy. (Farmer)

The identification with Will Allen of Growing Power (Broadway, 2009) engages the progressive messaging of AAMs and shows that the desire to host apprentices was perhaps motivated by a social cause. Another farmer noted that his farm engaged apprentices in building community:

Part of our mission is to build community, and so all the group facilitation skills and facilitation skills are really important to that so I think it's not just—it's vital to our mission to teach those skills anyway. (Farmer)

By teaching facilitation skills, he said that his farm is also moving its mission of building

community forward, which shows engagement with the agrarian question. The next farmer also related AAMs to the farm's mission:

I got involved in small-scale organic farming right after college...and so we're into teaching people about an extreme minority in food production in the country today, and here are the reasons we think it's best—nutrition, taste, freshness, environment, all of that. (Farmer)

So the farmer above engaged with the environmental the food-quality concerns of AAM discourse, and once again related it to the motivation to host apprentices. The theme that emerges is that these farmers were linking their hosting of apprentices to their AAM practice. Thus apprentices and farmers alike reflected AAM discourse in their motivations to undertake and host apprenticeships on a farm. This theme shows that hosting and participating in an on-farm apprenticeship are connected in part to a larger emphasis on critique and intellectual engagement in the food system.

Former Apprentices Starting Their Own Farms

Of host farmer survey respondents, 43 percent reported that they knew of apprentices who had gone on to start their own farms after their apprenticeship. A total of 57 apprentices represented in survey data reportedly went on to start their own farms. Some host farms reported as many as eight former apprentices having gone on to start their own farms. The fact remains that relatively few former apprentices in this study reportedly went on to start their own farms. They may still be engaged in AAMs, however, as the farmer below explained:

Of the maybe 30 to 35 people who had been through the program, only like two or three were actively farming as a full-time job...not a great track record. And all those [apprentices], they went on to be activists or educators or researchers or just eaters, so in a sense, that's great, but at least with [farm name]...we still struck out more than we hit. (Farmer)

This farmer stated that while many apprentices went on to be engaged intellectually with food

system work, he lamented that more apprentices did not go on to begin farming.

Summary of Findings

In summary, on-farm apprenticeships took place mainly on small, diversified farms. Farmer and apprentice participants in this study were disproportionately White, with high educational attainment. Apprentices were from a non-agrarian background and had low access to farmland. Host farms often provided housing and low or no pay. Farmers, who were motivated to host apprentices chiefly by a need for labor, provided task-oriented, on-the-job learning, with little formalized instruction. Participants expressed concern that farmers may need the inexpensive or free labor of apprentices to meet their labor needs, an arrangement critiqued by interviewees. Apprentices and host farmers alike saw themselves as part of a social movement within AAM discourses, and were motivated by critical engagement with the agrifood system. Few former apprentices may continue as beginning farmers themselves. These findings represent only the participants in this study, but are nonetheless telltale indicators for on-farm apprenticeships and provide several points for further discussion.

Discussion

On-farm Apprenticeships as Sites of Participation in Alternative Agrifood Movements

Our findings suggest that apprentices, and the farmers who host them, consider themselves to be part of a broader social movement, expressing knowledge of and familiarity with alternative agrifood discourses. These findings corroborate others, who write that on-farm apprentices and other farm volunteers are motivated by ideologies and practices of a larger social movement (Hamilton, 2011; Niewolny, 2007; Pilgeram, 2011; Terry, 2014; Wood, 2013). Alternative agrifood discourses have been theorized by Constance et al. (2014), Guptill et al. (2013), Allen (2004), and Sbicca (2012) to include many threads related to the environment, agrarianism, food and dietary quality, and emancipation and social justice. Participants in this study consistently echoed values and

criticality in these areas. Additionally, while many different ideological orientations exist within AAMs (Sbicca, 2012), farmers who engage in AAMs are likely to be small, diversified, and direct-marketing operations (Carolan, 2012; Lyson, 2004), much like those who hosted apprentices in this study.

Study participants were generally not from a farming background and had little access to farmland. These findings were consistent with other literature, which suggests that beginning farmers increasingly experience significant barriers to accessing farmland and do not grow up in agricultural communities (Ahearn, 2013; Kalyuzhny, 2012; Meyer et al., 2011; Sureshwaran & Ritchie, 2011; Wood, 2013). However, through apprenticeship, novices with little access to agriculture gain entry into the knowledge systems of agriculture, socio-culturally co-constructing new knowledge about farming and food within the context of their apprenticeship. Although not many of our study participants continue as beginning farmers after the apprenticeship concludes, the apprenticeship experience may be important in other ways, informing apprentices' ongoing participation in the critical work they engage in with AAMs, or increasing agricultural literacy and know-how.

Our study therefore shifts the focus away from understanding on-farm apprenticeships as simply job-training and a pathway for farm entry. Instead, apprentices in the study were primarily motivated to undertake an apprenticeship out of a value for and desire to critically engage in improving the food system, or create alternatives to the dominant food system. The individual apprentices and host farmers in this study, then, are better seen as change agents who seek to transform agriculture to more closely align with principles of AAMs through the social reproduction occurring through beginning-farmer educational activity within their farms and communities. However, these highly motivated individuals may be constrained in their transformative potential, based on the many structural issues governing agriculture, which this study highlighted.

Political Entry and Accessibility of On-farm

Apprenticeships

This study did not inquire as to the income levels of participants, but their high educational attainment is a statistically positive indicator of middle- to upper-class socioeconomic backgrounds (Bailey & Dynarski, 2011; DeNavas-Walt & Proctor, 2014; Julian, 2012). In light of the socioeconomic backgrounds of on-farm apprentices and host farmers, we begin to consider structural barriers to entry for individuals from low-wealth communities. These barriers transcend the individual or farm level and instead become indicators for issues within agricultural institutions as a whole.

In recent years, the cultural whiteness and color blindness within AAMs have also been critiqued by many (Allen, 2004; Etmanski, 2012; Guthman, 2008a; Hinrichs & Allen, 2008; Sbicca, 2012; Slocum, 2007). As Slocum (2006), Allen (2004), and Guthman (2008a) have written, themes within AAM discourses unintentionally reproduce cultural whiteness and class privilege. Slocum (2007) writes that AAMs may be uninviting to historically underserved communities in part because AAMs celebrate an idealized past of "property, privilege, and paler skin" (p. 531). In this way, traditions that historically led to inequity are color-blindly reinforced and considered normative, which inadvertently reifies White privileged spaces within AAMs. Diverse cultural interpretations of the food system are not often visible within AAMs. Our study suggests that the on-farm apprenticeship, in its connection to AAM discourse and practice, is also subject to the same critique of cultural whiteness.

On-farm apprentices represented in our study normally lived on the farm for a tenured duration with low or no pay. Interviewees, meanwhile, discussed how the effects of this situation mean that participation was possible mainly for those with a "privileged background." The classed and privileged status of apprentices has been previously noted by others (Kalyuzhny, 2012; Pilgeram, 2011; Wood, 2013). Pondering our findings in the context of other literature, we now ask if the low or no pay for a specified duration was acting as an unintended barrier to participation for low-wealth groups, as it does for unpaid interns in other industries (Attfield & Couture, 2014; Tucci, 2011).

We intend to raise the question here for consideration.

As stated before, the cultural politics of learning and knowing play out in the apprenticeship experience. With this view, the specific elements of cultural whiteness and low or no pay within the on-farm apprenticeship may be institutionalized arrangements that reinforce class and privilege and also act as a barrier to entry into small-scale, diversified agriculture. This study gives us fodder for discussion in order to consider important structures and/or practices that may be socially (re)productive of inequitable learning spaces.

Structural Barriers and Farm Labor

More broadly, this questioning relates to the growing call to reimagine farm labor within the food system (Allen, 2008; Carolan, 2012; Cavalieri, 2011; Guptill, et al., 2013; Holmes, 2013). It is noted that farmworkers, although we depend on them for sustenance, are largely invisible within the U.S. food system (Guptill et al., 2013; Luna, 2014). As a result, farm work remains an occupational class with high poverty, high incidence of labor abuse, few worker protections, and low regulatory oversight (Holmes, 2013; Bon Appétit Management Company Foundation & United Farm Workers, 2011). Many add that small-scale, sustainability oriented farming does not automatically guarantee a focus on socially just labor practices (Harrison & Getz, 2015; Shreck, Getz, & Feenstra, 2006). Meeting labor needs can be a significant barrier for beginning farmers (Gillespie & Johnson, 2010; Ruhf, 2001), and volunteer labor, including on-farm apprenticeships, is occasionally touted as a solution (Kalyuzhny, 2012; Terry, 2014). Drawing upon our findings and others' work (see Pilgeram, 2011; Wood, 2013) we open space here to carefully discuss and problematize the way farm labor may be understood and (mis)appropriated within the realm of apprenticeships and AAMs.

To that end, our purpose here is not to present on-farm apprenticeships as a possible articulation of labor injustice and invisibility. Instead, we seek to query if the use of apprentices for inexpensive farm labor may be yet another symptom of a historically problematic agricultural system and

labor situation in the United States. Farms, especially the small, diversified, and labor-intensive enterprises in our study, may sometimes come to rely on inexpensive or free labor in order to keep the farm financially afloat, a condition which could persist in future farm generations as a socially and culturally recursive response. As Althusser (2006) writes, the systemic framework that creates the social conditions for a given means of production will reproduce itself through sociocultural exchange. Beliefs beget practices, which beget policies (Goodman et al., 2012; Holmes, 2013). We conclude, then, that the on-farm apprenticeship is a somewhat problematic symptom of a larger systemic issue. The issue stems from the lack of favorable scale-appropriate and socially just agricultural policy that would enable farmers to thrive in a system that has resulted in socioeconomic and ecological excesses that cannot be sustained. This critique generally points to the ways in which agricultural subsidies are disproportionately dispersed to larger, commodity-based farms; publicly funded research efforts are often targeted to the advancement of technical solutions to production issues; and farm policy is oriented to support such initiatives as the H-2A guestworker program (see Carolan, 2012, for good summary) in lieu of embracing grassroots labor and farmworker organizing. While the complex issues surrounding policy and farm labor justice is beyond the scope of this paper, we point to this thread in order to identify, problematize, and thus allow for a reimagining of this schema, and address issues in a way that improves agricultural opportunities by enabling AAMs, and the motivated individuals within them, to realize their transformative potential for social justice as well as sustainability in our food system.

Conclusion

This study illuminates the on-farm apprenticeship phenomenon, an increasingly popular expression of the burgeoning body of beginning-farmer policy and programming. The examination of this phenomenon highlighted questions regarding the privileged social status of on-farm apprentices and farmer hosts as participants in alternative agrifood movements (AAMs), in which the political

discourses and values are reciprocally informed by their apprenticeship activity. On-farm apprenticeship programs, then, are best understood as embedded within AAMs. On-farm apprenticeships are therefore populated by motivated individuals who seek to critically engage with our agrifood system in order to improve it.

Farmers viewed apprentices as a source of inexpensive labor on their small, diversified, direct-marketing farms. This underscores the need to critically examine the overarching structural conditions (political, cultural, economic, and otherwise) that make it difficult for individual farms to meet their labor needs. The apprenticeship model has been one way that small farmers have met demands for labor, but because the on-farm apprenticeships are embedded in AAMs, they share the critique of cultural whiteness and also provide low or no pay for a tenured duration. These factors could inadvertently contribute to low participation for historically underrepresented socioeconomic groups. Because on-farm apprenticeships can be an entry point into agriculture, this scenario may also limit participation in AAMs and agriculture more generally.

In light of our findings and this discussion, we make several recommendations for researchers, practitioners, and educators who are involved in planning and evaluating on-farm apprenticeships:

- Challenge cultural whiteness by incorporating principles and practices of dismantling racism into the repertoire and norms for agricultural educators and service providers who are involved in the design of on-farm and agricultural education programming.
- Consider strategies that enable farmers to hire apprentices at the equivalent of minimum wage with benefits, including placing due value on specific educational activities and any food and housing provided. At the same time, consider ways to supplement apprentices' educational activities through the land-grant system, programming initiatives, and programs that have had demonstrated success in providing such support (see, for example, Carey et al., 2006).

- Conduct critical inquiries into, and analysis of, scale-appropriate agricultural policy and economic considerations that may affect the profitability and/or competitiveness of small, diversified farms, so they are able to better meet their labor needs in a fair and equitable manner.

Further research into this issue is imperative to better understand the labor needs of small, diversified farms, using the critical social justice lens called for in AAM discourse. Our study has provided empirical evidence that better defines these questions. By problematizing and improving upon the cultural whiteness and low or no pay of the apprenticeship model, and in light of farm apprenticeships' embeddedness in AAMs, we seek to address these two specific structural elements that affect the expression of social justice in on-farm apprenticeships, while examining how small farmers can meet their labor needs. By identifying these areas in need of improvement, and fine-tuning the on-farm apprenticeship model, apprenticeships may take their place in the future as an important pathway for aspiring and beginning farmers to surmount barriers and enter into food and farming systems, while staying firmly rooted in the principles of social justice. 

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Appendix A. Interview Protocol

On-Farm Apprenticeship Learning Research Project Interview Protocol

[Share consent form.]

[Read aloud the following:]

“I am [name], and thank you very much for your participation in this research to explore and describe on-farm apprenticeship learning in Virginia. This interview will be audio-recorded to ensure accuracy, and I will take a few notes to keep pace with the interview. There are no right or wrong answers. In all written documents that result from this interview, a pseudonym, or fake name, will be used, and identifying characteristics will be removed, to ensure your anonymity. This interview is completely voluntary. You are under no obligation to answer any question, and are free to leave at any time.”

Interview Questions for Farmer Educators

1. Please tell me a little about yourself and your background. (Where are you from? How long have you been on the farm?)
2. Describe the first time you ever identified yourself as a farmer.
3. Please describe to me how the typical learning experience occurs for apprentices on your farm.
4. What is your communication with the apprentices like?
5. How often do the apprentices get exposure to the larger farming community?
6. How does their farm experience change the way apprentices seem to see themselves as farmers?
7. Is there anything else you would like to share that you haven't already?
8. Who else should I visit to learn more about my questions?

Interview Questions for On-farm Apprentices

1. Please tell me a little about yourself and your background. (Where are you from? How long have you been on the farm?)
2. Please describe to me how the typical learning experience occurs through your apprenticeship.
3. What are some of the most important things you learned through your apprenticeship, and how did you learn these?
4. How did your apprenticeship/internship change the way you see yourself as a farmer?
5. Tell me about your relationship with the farmer and other apprentices.
6. If you could design your own apprenticeship or internship experience, what would it look like?
7. Please tell me a bit about the next steps for you. (Do you think you will start farming? Why or why not?)
8. Is there anything else you would like to share that you haven't already?
9. Who else should I visit to learn more about my questions?

[Thank you for your time.]

Appendix B: Survey Instrument

The On-Farm Apprenticeship Research Project Survey

Who should take this survey?

Please fill out and return this survey if you are one of the primary owners or managers of a farm that has an on-farm apprenticeship or internship program, or a farm that has hosted apprentices and/or interns.

For purposes of this survey, an on-farm apprentice is someone who:

- May be referred to as an apprentice, intern, or on-farm student,
- Over 18 years of age,
- Works on the farm for a specified length of time,
- Can be paid or unpaid, and
- There is an expressed agreement that you would teach them how to farm.

Thank you very much for your time and attention to this survey about on-farm apprenticeship and internship programs in Virginia. This is an academic research project through Virginia Tech.

Your answers are very important in determining how apprenticeships are currently being structured, common practices and how learning occurs in apprenticeship programs, and the types of farms that host apprentices. In the long run, your answers can help inform how Agricultural Extension might best serve and support these programs to advance agriculture in Virginia.

You will be asked questions relating to the apprentices, any practices, policies and procedures that support apprentices and interns, educational strategies, and information about you and your farm. Your participation in this survey is completely voluntary, and you are under no obligation to answer any question, for any reason. Your survey is completely anonymous, and no identifying characteristics will be used in any way for this survey.

Part 1: Apprentice Information

First, please answer the below questions about the apprentices on your farm.

1. What word do you use to describe your apprentices (for example: intern, apprentice, wage employee with educational component, etc.)? _____
2. How many years have you had apprentices on your farm? _____
3. How old is the typical apprentice? _____ (years)
4. How many apprentices TOTAL have you had on your farm since you began farming? _____
5. Of the apprentices you've had, please write how many were:
_____female
_____male
6. Of the apprentices you've had, please write how many were:
_____American Indian or Alaska Native
_____Asian
_____Black or African American
_____Native Hawaiian or Other Pacific Islander
_____Spanish, Hispanic, or Latino Origin
_____White
7. Of the apprentices you've had, please write how many had the below education level:
_____Some High School
_____High School Diploma
_____Some College
_____Associate's Degree
_____Bachelor's Degree
_____Vocational/Trade School
_____Some Graduate School
_____Master's Degree
_____PhD
_____Other _____
_____Unsure or I don't know
8. How many years of farming experience does your typical apprentice have before they start at your farm?
_____ (years)
9. How many apprentices do you usually have on the farm at the same time? _____

Part 2: Apprenticeship Program Details

Next, please provide some information pertaining to the apprenticeship program on your farm.

10. Apprentices stay with the farm for (on average) how many weeks? _____

11. Please rate your motivations for wanting apprentices on your farm, on a scale of “very important” to “not important.”

Check the box:	Very Important	Somewhat Important	Somewhat Not Important	Not Important
I need labor for my farm.				
I like working with others.				
I enjoy teaching.				
I want to help create educated consumers.				
I had a good learning experience and want to provide the same opportunity to others.				
I want to share the farming lifestyle with others.				
I want to help train the next generation of farmers.				
I like the energy of having “new blood” on my farm.				
I want to spend time with others who enjoy farming.				
Other motivations (please list):				

Source: *The On-Farm Mentor’s Guide: Practical Approaches to Teaching on the Farm*, by Miranda Smith (2006), published by New England Small Farm Institute.

12. If you have used any outlet for advertising your apprenticeship program, which did you use? (*check one*)

- ATTRA website
- OTHER website (please list below)
- Social media (Facebook, blogs, listserv, etc.)
- Ad in newspaper or magazine
- Flyers or brochures
- Word of mouth
- OTHER (please list below)

If you used “OTHER” outlets for advertising, please list: _____

13. Have you consulted a handbook or guide for information to help you with your apprenticeship program? (*check one*)

- yes no
- IF YES, which handbook or guide did you use? _____

14. Have you sought advice or guidance from an agricultural organization to help you with your apprenticeship program? (check one)

___yes ___no

IF YES, please list which one(s): _____

15. Have you sought advice or guidance from another farmer to help you with your apprenticeship program? (check one)

___yes ___no

IF YES, what was your relation (ex: friend, relative, etc.)? _____

16. Have you sought advice or guidance from the Extension Service to help you with your apprenticeship program? (check one)

___yes ___no

IF YES, what was your relation (ex: friend, relative, etc.)? _____

17. If you had any OTHER sources of advice or guidance that you sought to help you with your apprenticeship program, please list here:

18. Next, please let us know about what kinds of practices, policies and procedures you have on your farm to support your apprenticeship program.

Please rate how much you agree with the following statements, on a scale of “strongly agree” to “strongly disagree.”

Check the box:	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
I have an established application process, which includes a written application.				
I require all prospective apprentices to visit the farm for an interview.				
I require a written, signed, work agreement with apprentices.				
I provide stipends or other monetary compensation for apprentices.				
I have an established orientation process.				
I have a probationary or trial period when apprentices first start, to make sure they are a good fit for the position.				
I provide incentives (monetary or in-kind) for apprentices to stay for the full season.				
I have regularly scheduled meetings with apprentices to discuss the farm work.				
I include apprentices in marketing activities (farmers market, roadside stand, etc.).				
I make sure apprentices learn how to do a wide variety of tasks on the farm.				
I have regularly scheduled check-ins to receive feedback from apprentices.				

19. What kind of housing do you provide to apprentices? (check one)

- I do not provide housing.
- On the farm in my home.
- On the farm in a separate building from my home.
- We have an arrangement to provide housing off the farm.
- Other: _____

20. Do you share kitchen facilities with apprentices? (check one) yes no

21. Do you share bathroom facilities with apprentices? (check one) yes no

22. Next, please let us know what kind of teaching strategies you employ on your farm to teach apprentices.

How often do you provide the following to your apprentices? Please rate on a scale of “very often” to “never.”

Check the box:	Often	Sometimes	Rarely	Never
Verbal explanations of new tasks				
Hands-on demonstrations for new tasks				
On-farm special workshops				
Tours of your farm				
Tours of other farms				
Farmer-led discussions about farming				
Discussion time for apprentices just to talk with each other about farming				
Scheduled lessons or meetings with other farmers				
Written worksheets or other curriculum on farming				
Have apprentices journal or do other writing about farming				
Have apprentices go with you on errands				
Use of your farming books or other literature				
Use of the internet to research farming topics				
Indoor classroom-style classes on your farm				
Work side-by-side with the apprentices				
Personalized feedback to each apprentice after seeing how they perform a new task				
Discuss my philosophy of farming with apprentices				
Explaining the “why” not just the “how” of farming				
Shared meals or social events with apprentices				
Bring apprentices to other farming classes or workshops				

23. Next, please inform us of the attributes and performance of apprentices on your farm.

Please rate how much you agree with the following statements, on a scale of “strongly agree” to “strongly disagree.”

Check the box:	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
Apprentices are accustomed to hard physical labor before they start.				
Apprentices have a realistic picture of the realities of farming before they start.				
Apprentices are accustomed to life on the farm before they start.				
Apprentices are from a farming background.				
Apprentices have farmland in the family that they may inherit.				
Most apprentices live on the farm for the duration of their apprenticeship.				
Most apprentices are certain that they want to start their own farm.				
Apprentices develop their own philosophy of farming during their apprenticeship.				
As a result of the apprenticeship, apprentices become comfortable in their role as farmer.				
As a result of the apprenticeship, most come to see themselves as farmers.				
I am overall satisfied with the work of apprentices on the farm.				

24. Next, please inform us policies, practices and procedures you may use after an apprenticeship has finished.

Please rate how much you agree with the following statements, on a scale of “strongly agree” to “strongly disagree.”

Check the box:	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
My farm follows up with apprentices after they finish their apprenticeships.				
I give apprentices farming advice after they complete their program.				
I talk to and see former apprentices.				

25. Have any of your apprentices gone on to start their own farms? (*check one*)

yes no I don't know

- a. If YES, how many apprentices have gone on to start their own farms? _____
- b. If YES, is their farm located in Virginia? (*check one*) yes no I don't know
- c. If YES, do they produce some or all of the same agricultural products as you do? (*check one*) yes no I don't know

Part 3: Farm/Farmer Background

Finally, please answer the following background questions about you and your farm.

26. Are you the principle operator of this farm? (*check one*) ___yes ___no

If NO, what is your role? _____

27. I am: ___ female ___ male (*check one*)

28. Please check the category that best describes you (*check one*):

___ American Indian or Alaska Native

___ Asian

___ Black or African American

___ Native Hawaiian or Other Pacific Islander

___ Spanish, Hispanic, or Latino Origin

___ White

29. In what year did you begin to operate or manage any part of this farm? _____

30. What is your age at the time of this survey? _____

31. How many years have you been farming? _____

32. I have had the following training in agriculture (*check all that apply*):

___ Grew up on a farm.

___ Served on a farm as an apprentice.

___ Worked on a farm as a farm worker.

___ Had some academic training in farming (in high school, college, etc.)

___ Had some professional training in farming (workshops, community programs, etc.)

___ Other _____

a. What is your highest level of formal education completed? (*check one*)

___ Some High School

___ High School Diploma

___ Some College

___ Associate's Degree

___ Vocational/Trade School

___ Bachelor's Degree

___ Some Graduate School

___ Master's Degree

___ PhD

___ Other _____

33. What were your farm's approximate annual sales this past season? \$ _____

34. What market outlets do you use? (*check all that apply*)

- Commodity Markets
- Community Supported Agriculture (CSA)
- Home Delivery
- Wholesale
- Farmers Market
- Marketing Coop
- U-Pick
- Restaurants
- Institutional Sales (e.g., farm-to-school, farm-to-hospital, farm-to-prison)
- Roadside Stand
- Retail Store
- Retail Store On-farm
- Produce Auction
- Livestock Auction
- Other _____

35. What do you produce commercially on your farm? (*check all that apply*)

- Soybeans
- Corn for grain
- Wheat for grain
- Grains, oilseeds, dry beans, and dry peas
- Tobacco
- Cotton and cottonseed
- Vegetables, melons, potatoes and sweet potatoes
- Fruits, tree nuts, and berries
- Nursery, greenhouse, floriculture, and sod
- Cut Christmas trees and short-rotation woody crops
- Other crops and hay
- Poultry and eggs
- Cattle and calves
- Milk and other dairy products from cows
- Hogs and pigs
- Sheep, goats, and their products
- Horses, ponies, mules, burros, and donkeys
- Aquaculture
- Forage—land used for all hay and haylage, grass silage, and green
- Other animals and other animal products _____

36. My farm is: (*check all that apply*)

- Individually operated
- Family-operated
- Operated in a business partnership with nonfamily members

37. County and state in which your farm is located (COUNTY, STATE)

38. How many acres of farm land do you LEASE? _____ OWN? _____

39. Would you be interested in participating in a 60-minute interview about your experiences with apprentices, at a time and place that is convenient for you?

Checking "yes" does NOT obligate you to participate in an interview. (*check one*)

yes no

IF YES, you may leave your contact information, below. By sharing your contact information, you are agreeing to be contacted by a Virginia Tech researcher, who will invite you to schedule an interview at a time and place that is convenient for you. Your survey responses will remain anonymous.

Name _____

Phone Number _____

Email Address _____

40. Please write below any comments or anything else you wish to share about on-farm apprenticeships:

Thank you very much for your time. Please return this survey to: Lorien MacAuley at 228 Litton-Reaves Hall, 175 West Campus Drive, Virginia Tech; Blacksburg, Virginia 24061 USA; 703-789-7748; lorien@vt.edu. If you would like to learn more about the On-Farm Apprenticeship Research Project, please contact Lorien MacAuley at 228 Litton-Reaves Hall, 175 West Campus Drive, Virginia Tech; Blacksburg, Virginia 24061 USA; 703-789-7748; lorien@vt.edu.

This is academic research through Virginia Tech. If you have complaints, suggestions, or questions about your rights as a research volunteer, please contact the staff of Virginia Tech's Institutional Review Board at 540-231-4991. For all other inquiries, please contact Lorien MacAuley at the above contact information.

The exceptional one percent: U.S. farmworker and business owner

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Abstract

This paper documents the exceptional confluence between employment as a U.S. farmworker and business owner. Hispanics compose the overall majority (79.7%) of U.S. farmworkers, with two-thirds (66.6%) of all farmworkers identifying as Mexican. Utilizing the National Agricultural Workers Survey conducted annually by the U.S. Department of Labor from 1989 to 2009, we

explore the characteristics and determinants of these unique farmworker/business owners. Approximately 1% (or about 10,000) U.S. farmworkers are business owners either in the U.S. or in their native homeland. Both Hispanics (53.0%) and non-Hispanics (47.0%) form this unique subset, although Hispanic farmworkers are underrepresented in this business owner subset given that they make up a relatively high proportion of all U.S. farmworkers. Implications for business growth, entrepreneurship, and economic development abound; even in the most trying of occupations entrepreneurial outcomes may emerge. Two case studies outline possible pathways to business formation for agricultural workers.

Keywords

farmworker, business owner, entrepreneurship, National Agricultural Workers Survey, NAWS, Latinos, Hispanics

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Introduction

The National Agricultural Workers Survey (NAWS), conducted annually by the U.S. Department of Labor, indicates that only one percent of U.S. agricultural workers in the period of 1989 to 2009 also owned their own business. With over one million agricultural workers in the U.S., there are approximately 10,000 farmworkers who are business owners either in the U.S. or in their country of origin, if the latter are cross-border agricultural workers.¹ The phenomenon of agricultural work as a possible path to business ownership is understudied, especially the development from farmworker to business owner. Further, small business development in disadvantaged communities has long been the object of policymakers' attention. In this paper we focus on this "exceptional" one percent—those who are simultaneously agricultural workers and business owners—and examine the determinants of farmworker entrepreneurship using data from the NAWS gathered between 1989 and 2009.

Literature Review

Shane and Venkataraman (2000) suggest that business owners or entrepreneurs are those individuals who are willing and able to make the most of market opportunities. Schumpeter (1911) and Kirzner (1973) refined our understanding of entrepreneurship to include punctuated innovations and the exploitation of incremental marketing openings. Holcombe (2008, p. 71) argues, "the engine of economic growth is not better inputs, but rather an environment in which entrepreneurial opportunities can be capitalized upon." Creating such an environment is a long-term public policy priority.

A select few agricultural workers, despite the arduous and seasonal nature of the work and generally low wages, are able to navigate the economic environment to own and operate a business enterprise. While there is no extant literature covering U.S. farmworkers who are also business

owners, the NAWS notes that Hispanics² compose the overall majority (79.7%) of U.S. farmworkers, with two-thirds (66.6%) of all farmworkers identifying as Mexican. Hence, a review of scholarship on Hispanic entrepreneurship may provide insights in the absence of a literature on U.S. farmworkers as business owners.

Rural Hispanic Self-Employment

Refugio Rochín and colleagues (Rochín, Saenz, Hampton, & Calo, 1998) have examined rural Latino³ self-employment in California. Rochín notes that structural conditions (e.g., high unemployment, limited educational attainment, and high concentration of agricultural workers) heavily influence self-employment outcomes, resulting in Latinos being "self-employed as part of their own means for survival" (Rochín, 2013, p. 89). In her study of rural Latino entrepreneurs in California using U.S. census data, Calo (1995) found an overall Latino self-employment rate of 9.0% (about 51,000 individuals), with just over one-third (35.8%) of self-employed rural Latinos also earning a wage income. Calo (1995) also noted that self-employed Latinos are engaged in a few sectors, including agriculture (29.2%), personal, entertainment, and professional services (25.9%), business and repair services (21.8%), wholesale and retail trade (14.5%), and construction (12.0%). Lastly, Calo (1995) reports that self-employed Latinos with supplemental wage income earn 29.2% more than self-employed Latinos without additional wage income. Hence, Rochín and colleagues suggest a connection between wage income such as farmworker earnings and self-employment, although Calo (1995) suggests that more work needs to be done with regard to dual enrollment in self-employment and wage employment.

Latino Entrepreneurship

While the literature on Latino entrepreneurship is in its infancy, there are a handful of studies that

¹ The NAWS labels cross-border agricultural workers—those workers who cross the U.S.-Mexico border in concert with U.S. agricultural harvest cycles—as "international shuttlers."

² The U.S. Census Bureau identifies Hispanic as "a person of Cuban, Mexican, Puerto Rican, South or Central American, or

other Spanish culture or origin regardless of race" (U.S. Census Bureau, 2011, p. 2).

³ Following the Pew Hispanic Center (Lopez, 2013), we use the terms Hispanic and Latino interchangeably.

help shape the current state of knowledge. Because of the ongoing flow of immigration from Mexico and other sending countries, enclave or immigrant community entrepreneurship has been a sustained focus of study. Portes and Haller (2005), Light (2005), Malkin (2004), and Striffler (2007) examined different immigrant groups in the U.S. and found that successful immigrant communities offer newly arrived co-ethnics help in securing informal sources of credit, insurance, child support, English language training, job referrals, job placement, support networks, and employment assistance (including self-employment assistance). More generally, Calo (1995) uncovered direct relationships between Latino self-employment and greater educational attainment, higher English proficiency, additional work experience, and Latino population enclaves.

Four studies have reviewed urban Latino entrepreneurship in Las Vegas, Chicago, Washington, D.C., and Virginia. Shinnar and Young (2008) found that Latino self-employment in Las Vegas was more a result of available business opportunities than a necessity of securing some income source, though both were important motivations in start-up decisions. In their study of “Little Village” in Chicago, Tienda and Rajman (2004) noted a stepladder approach to Latino business ownership, where informal markets are an important ingredient in initiating and scaling enterprises. Verdaguer (2009) focused on Salvadoran and Peruvian Latino entrepreneurs in the metropolitan Washington, D.C., area. Noting different trajectories and resource bases of Salvdorans and Peruvians, Verdaguer (2009) found heterogeneity in entrepreneurship endeavors and outcomes, and cautions against sweeping pan-ethnic descriptions where differences among different Hispanic origin groups may be profound.⁴ In her study of Harrisonburg, Virginia, Zarrugh (2007) uncovered an enclave of Latino self-employment as a response to blocked employment paths, partially a result of racism. This result is supported by Dávila and Mora (2013), who

⁴ By design, Verdaguer (2009) studied the common and disparate threads between Peruvian and Salvadoran entrepreneurs in the Washington, D.C., area. In this present research, while the agricultural workers are predominately of Mexican origin,

also noted that this is especially true for Hispanic immigrant entrepreneurs. National studies suggest that Latina entrepreneurs earn more than similar non-Latina (Anglo) entrepreneurs, but still earn less than similar Latinas who receive wages and/or salaries (Lofstrom & Bates, 2009). Wang and Li (2007) argue that English language ability is a determinant of self-employment for Latinos, and Borjas and Katz (2007) suggest that Latinos improve their earnings over time.

Latino entrepreneurship also finds its way into the large undocumented population in the U.S., where approximately 75% of the estimated 11.2 million without documentation are Latino (Passel & Cohn, 2014). Because the undocumented earn income while trying to avoid governmental detection, one potential employment source is informal self-employment. Informal enterprises are businesses operating outside the purview of government oversight, yet these business concerns operate in such a way that the business itself could be conducted within the bounds of government regulation. While not picked up in official surveys of businesses, these enterprises do exist and require qualitative study. Pisani (2012) highlights the experience of undocumented Latinos owning and operating informal businesses in South Texas,⁵ primarily a result of insufficient immigration documentation and work authorization. To remain undetected, these businesses often engage in the low-profile occupations of domestic workers, tradesmen, landscapers, or small-volume vendors.

Data and Methodology

The NAWS, commissioned yearly by the U.S. Department of Agriculture and conducted by the Department of Labor, selects field workers engaged in crop agriculture to be interviewed through a random sample of agricultural employers in the continental U.S. Following the seasonal nature of agriculture, interviews are conducted three times per year, in February, June, and October, across 12 geographical regions, with the

this group is not homogenous, allowing for more nuanced examination reflected in the analysis that follows.

⁵ South Texas is also a magnet for informality; see Richardson and Pisani (2012) for a more detailed review.

number interviewed proportional to the estimated seasonal farm labor flow. Participation rates are relatively high; for example, the 2009 survey had an employer response rate of 66% and agricultural worker response rate of 92%, aided by a US\$20 honorarium for participation in the hour-long survey (U.S. Department of Labor, n.d.-a).

We utilize the NAWS⁶ public access data for the years 1989 through 2009 containing blinded interview data from 52,479 agriculture workers.⁷ The data set is composed of pooled cross-sectional data. On average about 2,500 agricultural workers, limited to hired crop farmworkers (or a large subset of all agricultural workers), were interviewed yearly, with 1,511 interviewed in 2007 and 3,612 interviewed in 1999. The NAWS provides sample weights for comparison purposes across years of the survey. The questionnaire contains sections covering the household roster, demographics, and living conditions; health, sanitation, and insurance; government assistance; education and training; language acquisition and usage; work history, employment, and migration with an agricultural focus; income and other assets; pesticide use; and legal status. The NAWS “data set includes 220 questionnaire variables and 100 created variables” (U.S. Department of Labor, n.d.-b, p. 1).

The dependent variable of business ownership in this study is derived from two yes or no NAWS survey questions: (1) “Do you own or are you buying the following item in the United States? A business”; and (2) “Do you own or are you buying the following item in your home country? A

business.” Throughout the study period, 500 agriculture fieldworkers identified as owning a business either in the U.S. ($n=347$) or in their home country outside the U.S. ($n=153$).⁸ We will refer to this enterprising 500 subgroup as “the exceptional one percent,” as they make up that percentage of the total 52,063 respondents. There are no follow-up questions in the NAWS as to the type of business or other business characteristics.

The selection of independent variables is derived from the literature on Hispanic entrepreneurship, including the importance of gender, years of experience (e.g., age, agricultural work experience, and migrant work experience, including cross-border shuttling), interview location (East, Southeast, Midwest, Southwest, Northwest,⁹ or California), educational achievement, nativity (i.e., birthplace), ethnicity (Hispanic or non-Hispanic), immigration status (e.g., U.S. citizen, U.S. green card holder, other U.S. work authorization, unauthorized), English proficiency (e.g., ability, usage), and available resources (e.g., personal and household income). One additional variable, civil (or marital) status, was also included as an independent variable.

As the dependent variable is dichotomous (i.e., business ownership and/or buying a business [“yes” or “no”] at time of the survey), we conducted a binary logistic regression to estimate the likelihood of business ownership. Use of binary logistic regression as a statistical technique is appropriate when there are multiple independent variables and the dependent variable is discrete (i.e., there are two choices: own a business/do not

⁶ Several researchers have utilized the NAWS data to examine specific areas of agricultural worker activities— including pay (Isé & Perloff, 1995; Kandilov & Kandilov (2010), health care (Hoerster, Beddawi, Peddecord, & Ayala, 2010), working conditions (Kandel & Donato, 2009; Pena, 2012, 2014) and worker contracts (Pena, 2010)— all contributing to the robustness of the NAWS as a research source.

⁷ While it is remotely possible that the same agricultural worker could be interviewed more than once in the sample time frame (1989–2009), it is highly unlikely. First, the NAWS prohibits re-interviewing of respondents within a 12-month period. Second, the annual random selection of approximately 2,500 agricultural workers to interview from a pool of more than 1 million agricultural workers suggests a less than 0.3% chance of being selected for an interview in a given year.

⁸ Only one respondent indicated owning a business both in the U.S. and in his home country (identified as the Pacific Islands). Critical missing data, including income, resulted in this respondent (from 1989) being dropped from the multivariate analyses.

⁹ The regions are composed of the following states: *East*: Connecticut, Kentucky, Maine, Massachusetts, New Hampshire, New York, North Carolina, Rhode Island, Vermont, Virginia, West Virginia; *Southeast*: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, South Carolina; *Midwest*: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin; *Southwest*: Arizona, New Mexico, Oklahoma, Texas; *Northwest*: Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming; and *California*.

own a business). The advantages of logistic regression are many, including estimating the probability of such an event—in the present case, agricultural workers owning a business—to occur under relaxed assumptions.¹⁰ In its basic form, this model allows us to identify the factors that determine business ownership for agricultural workers. Our results follow.

Results

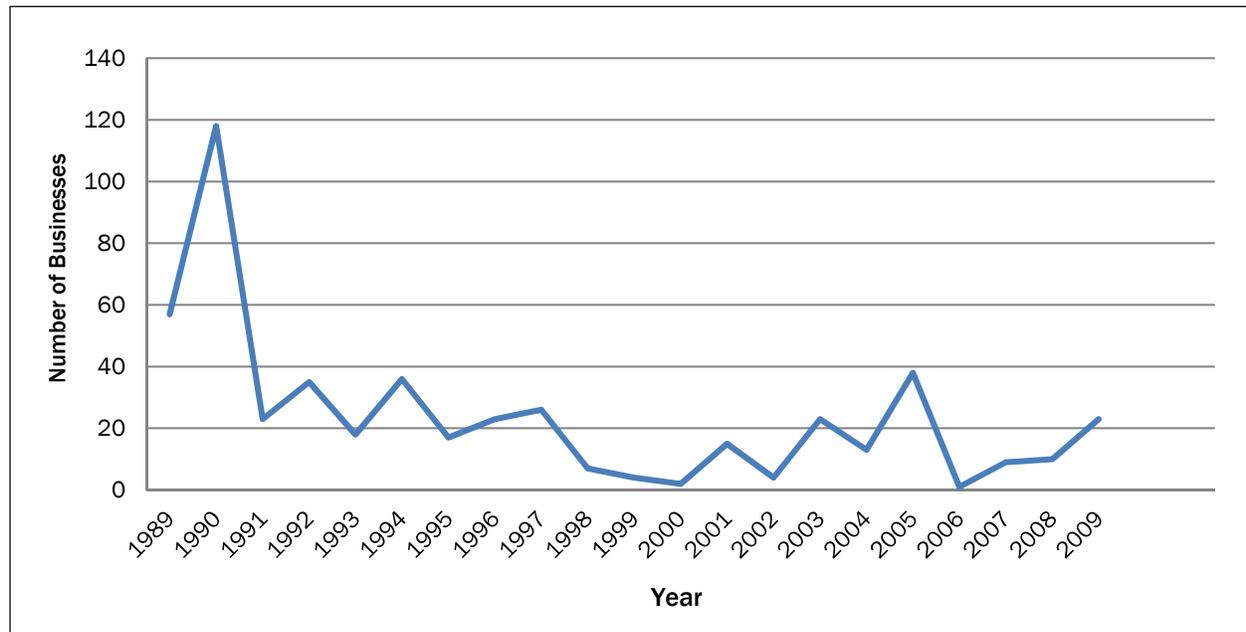
In this section, we report on the descriptive statistics for farmworker and business owner and for farmworkers in the NAWS sample over the period 1989–2009. Next we estimate the determinants of farmworker business ownership. We follow this with a further examination of the determinants of farmworker and business owner by location of business, either in the U.S. or home country. This section concludes with a discussion of the results presented.

Examination of Farmworkers and Business Owners

For ease of exposition, respondents who are farmworkers and businesses owners will be referred to as “business owners,” and farmworkers who are not business owners will be referred to as “farmworkers.” While business owners appear in each year of the survey, the 1989 to 1994 period has the most respondents identifying as business owners, a likely result of the regularization of immigration status after the implementation of the Immigration Reform and Control Act (IRCA) of 1986 (see Figure 1).¹¹ Table 1 reports the descriptive statistics for business owners vis-à-vis the remainder of the farmworker sample. The independent variables distinguish the two subsets, all of which are statistically different between the two groups, as examined below.

While men are the majority in both groups, women form a higher percentage of business owners (35.4%) as compared to farmworkers (22.3%).

Figure 1. Number of U.S. Farmworkers Who Own or Are Buying a Business by Year, 1989–2009



Source: Authors' calculation from the National Agricultural Workers Survey, 1989–2009.

¹⁰ Logistic regression is a robust statistical tool, in part because estimation does not require the following assumptions: a linear relationship between the dependent and independent variables, independent variables to be multivariate normal, independent variables be metrically scaled, or homogeneity of variance.

Further, the method of estimation is maximum likelihood and yields values for the unknown parameters that maximize the probability of obtaining the observed set of data.

¹¹ The year count is significantly different across the years; cross-tabulation: Pearson Chi-Square=58.266, df=20, $p=.000$.

Business owners on average are older (38.6 years of age versus 32.6 years of age) and more likely to be married than farmworkers (71.3% versus 55.0%, respectively). While Hispanics make up the majority (53.1%) of business owners, half (50.4%) of business owners were born in the U.S., as compared to one-quarter of farmworkers who were born in the U.S. Mexico is heavily represented as a place of birth for both groups: a majority (68.2%) of farmworkers were born in Mexico and almost half (44.6%) of business owners were born in Mexico. In conjunction with place of birth, two-thirds (66.1%) of business owners are U.S. citizens or green card holders and less than one-fourth (23.1%) are unauthorized to be in the U.S. In contrast, 42.8% of farmworkers are unauthorized to be in the U.S. and just over half (50.8%) possess U.S. citizenship or a green card.

Table 1. U.S. Farmworker Descriptive Statistics at Time of Survey (1989-2009)

Variable	Business Owners (U.S. & Home Country)	Farmworkers
Gender (%)		
Male	64.6	77.7
Female	35.4	22.3
Mean Age (std. dev.)	38.6 (12.3)	32.6 (12.5)
Civil Status (%)		
Single	25.3	39.6
Married/Living Together	71.3	55.0
Divorced/Separated/Widowed	3.4	5.3
Birthplace (%)		
U.S.	50.4	25.7
Puerto Rico	1.0	1.6
Mexico	44.6	68.2
Central America	2.4	2.9
Other	1.6	1.6
Education—Highest Grade Level Completed (%)		
None	1.6	4.8
Elementary (1–6 grades)	26.0	44.4
Middle School (7–9 grades)	12.6	20.2
Some High School (10–11 grades)	12.8	9.5
High School (12 grades)	26.9	15.2
Some College and Beyond	20.1	5.9
International Shuttler—Yes (%)	21.4	28.9
Migrant Farmworker—Yes (%)	32.4	43.4
Hispanic—Yes (%)	53.1	80.0
Speak English (%)		
Not at all	20.4	40.0
A little	23.0	28.1
Somewhat	7.1	7.6
Well	49.5	23.9
Read English (%)		
Not at all	26.4	47.9
A little	12.8	19.9
Somewhat	3.4	5.7
Well	57.3	26.5
Language Most Comfortable Conversing In... (%)		
English	50.0	22.2
Spanish	46.6	75.1
Other	3.4	2.7
Mean Years Worked on the Farm in the U.S. (std. dev.)	12.7 (11.9)	9.7 (9.9)
Interview Region (%)		
East	22.4	16.3
Southeast	17.2	14.2
Midwest	36.5	19.5
Southwest	2.2	7.6
Northwest	11.2	12.0
California	10.6	30.5
Adjusted Income (in 2009 U.S. dollars)		
Mean Personal Income (std. dev.)	18,591 (17,272)	13,167 (9,186)
Mean Family Income (std. dev.)	28,727 (21,634)	18,866 (14,716)
U.S. Immigration Status (%)		
U.S. Citizen	53.8	29.9
U.S. Green Card	12.3	20.9
Other Work Authorization	10.7	6.4
Unauthorized	23.1	42.8
Weighted N	500	52,063

Italics=Statistically different at the .001 level.

Source: Authors' calculation from National Agricultural Workers Survey, 1989–2009.

Nearly half of business owners are high school graduates or have studied at college, in contrast nearly half of farmworkers possess no education or an elementary school education. Large numbers of both groups migrate to work on the farm and shuttle across international borders to do so; however farmworkers do so in larger numbers (28.9% vs. 21.4%, respectively). With respect to language facility, more than half of business owners are able to communicate (oral and written) in English and half (50.0%) feel most comfortable communicating in English. On the other hand, Spanish is the predominant language of choice (75.1%) for farmworkers with less than one-third able to communicate in English. Business owners have also worked on average longer on the farm in the U.S. than farmworkers (12.7 years versus 9.7 years, respectively). There is a disparity in incomes between the two groups; business owners earn 41% and 52% more as individuals and households, respectively. Lastly, the following interview regions are overrepresented with respect to business owners: East, Southeast, and the Midwest (ranging from 17.2% to 36.5%). Conversely, the Southwest had by far the lowest business owner representation (2.2%).

To better understand which variables are significant in determining which U.S. farmworkers own a business, we employed a logistic regression model utilizing the NAWS data set to estimate the determinates of business ownership among farmworkers (see Table 2). Business ownership served as the dichotomous dependent variable (business owner=1, farmworker only=0). Because of missing data, three logistic regression models were utilized using the available independent variables. Model 1 contains 7 variables (gender, age, civil status, birthplace, education level, international shuttler [i.e., does respondent cross the international border in order to engage in U.S. farm work, yes=1,

otherwise=0], and region of interview) and includes 499 of 500 (99.8%) business owners. Model 2 contains the 7 variables identified in model 1 and 5 additional variables (migrant farm work status, ethnicity [Hispanic=1, otherwise=0], language most comfortable conversing in, number of years worked on the farm in the U.S., and immigration status) and includes 439 of 500 (87.8%) business owners. Model 3 contains the 12 variables identified in model 2 and 4 additional variables (English speaking ability, English reading ability, annual personal income, annual family [household] income) and includes 277 of 500 (55.4%) business owners.

Results of Model 1

In model 1, which includes 99.8% of the business owner sample, all variables but birthplace are significant in differentiating the odds of business ownership and non-business ownership among U.S. farmworkers.¹² All of the significant independent variables in model 1 increase the odds of business ownership. The odds that males are business owners are 48.7% higher than females, and the odds that international shuttlers are business owners are 35.0% greater than non-shuttlers.¹³ Furthermore, each additional year of age increases the odds of business ownership by 3.4%; being married increases the odds of business ownership by 74.7% over those who are single; and all schooling enhances the odds of business ownership, with greater amounts of education increasing the odds at each education step.¹⁴ Lastly, residence in all regions except the Southwest are more likely to increase the odds of business ownership compared to those respondents from California (ranging from 1.2 to 2.6 times).

Results of Model 2

Model 2 extends the variables under consideration

education are 1.6 times greater to own a business than those farmworker respondents with no education. Additional schooling results increase the odds of business ownership at the following rates: 1.2 times for middle school, 5.9 times for some high school, 6.3 times for high school, and 12.7 times for some college or beyond when compared to those with no education.

¹² Logistic regression diagnostics across all three models are acceptable.

¹³ This rate is calculated as $1-\beta$ from Table 2 (for this example, see column 2, $1.487-1$ or $.487$ and $1.350-1$ or $.350$). In Table 2, symbols attached to the first listing of categorical variables with reference categories indicate the variable is significant; see for example row 5 civil status.

¹⁴ More specifically, odds of those with an elementary school

in Model 1, but in doing so loses 12.0% of the model 1 sample due to missing data. Nevertheless, the results in Model 2 for gender, age, civil status, education, international shuttling, and interview region are very similar to Model 1 results. For brevity of exposition, see Model 1 and the aforementioned variables as the results parallel the earlier discussion. Model 2 also adds new significant insights with regard to birthplace, migrant work, language preference, years worked on the farm in the U.S., and immigration status. Reducing the odds of business ownership by 81.0% is nativity outside of Mexico and Central America in reference to nativity in the U.S. Correspondingly, preference for conversing in Spanish rather than English decreases the odds of business ownership by 48.0%. On the other hand, status as a migrant farmworker decreases the odds of

Table 2. Logistic Regression Results (Odds Ratios) for Farmworker Business Ownership (Business Owner=1)

Variable	Model 1 Exp(β)	Model 2 Exp(β)	Model 3 Exp(β)
Gender (Male=1) ^a	1.487‡	1.660‡	1.383‡
Age (Years)	1.034‡	1.030‡	1.028‡
Civil Status	--‡	--‡	--‡
Married/Living Together	1.747‡	1.744‡	2.167‡
Separated/Divorced/Widowed	.648	.806	1.599
Birthplace	--	--†	--*
Mexico	1.171	1.845	1.669
Central America	1.451	1.874	1.362
Other	.784	.190*	.157*
Education	--‡	--‡	--‡
Elementary (1–6)	2.600†	3.067‡	1.629
Middle School (7–9)	3.212‡	3.321‡	1.917
Some High School (10–11)	6.939‡	6.481‡	2.234*
High School (12 grades)	7.336‡	6.538‡	1.588
Some College and Beyond	13.694‡	13.196‡	3.878‡
International Shuttler (Yes=1)	1.350†	1.723‡	1.426
Migrant Farmworker (Yes=1)	-	.726*	1.089
Hispanic (Yes=1)	-	.829	.844
Speak English	-	-	--‡
A little	-	-	1.800‡
Somewhat	-	-	2.209‡
Well	-	-	.895
Read English	-	-	--‡
A little	-	-	.745
Somewhat	-	-	.685
Well	-	-	6.044‡
Language Most Comfortable Conversing In...	-	--‡	--‡
Spanish	-	.520*	1.188
Other	-	1.458	4.060‡
Years Worked on the Farm in the U.S.	-	1.012†	.992
Interview Region	--‡	--‡	--‡
East	3.258‡	4.045‡	3.298‡
Southeast	3.304‡	2.912‡	2.588‡
Midwest	3.639‡	3.867‡	2.653‡
Southwest	.709	.838	.852
Northwest	2.191‡	2.434‡	1.708‡
Personal Income	-	-	1.000‡
Family Income	-	-	1.000
U.S. Immigration Status	-	--‡	--‡
U.S. Green Card	-	.973	1.494
Other Work Authorization	-	3.603‡	6.021‡
Unauthorized	-	1.221	2.057
Weighted N: Own/Buying a Business Other	499 51,331	439 48,622	277 34,980
Model Diagnostics -2LL	5115.984	4487.832	2855.301
χ ²	508.769‡	529.609‡	381.492‡
Cox & Snell R ²	.010	.011	.011
Nagelkerke R ²	.095	.110	.123

^a Reference categories: Gender=Male, Civil Status=Single; Birthplace=Born in USA/Puerto Rico; Education=None; International Shuttler=Yes; Hispanic=Yes; Speak English=Not at all; Read English=Not at all; Language Most Comfortable Conversing in=English; Interview Region=California; U.S. Immigration Status=U.S. citizen

Note: "--" variable included in the model, "-" variable excluded from the model.

Significance at the * $p < 0.10$; † $p < 0.05$; ‡ $p < 0.01$ levels.

Source: Authors' calculation from the National Agricultural Workers Survey, 1989–2009.

business ownership by 27.4% over non-migrants. Longevity as a farmworker in the U.S. also increases the odds of business ownership by 1.2% per additional year worked. The odds of owning a business were higher for those interviewed in the East, Southeast, Midwest, and Northwest as compared to California. Lastly, other work authorization increases the odds of business ownership 260% over U.S. citizen farmworkers.

Results of Model 3

Model 3 includes all identified variables; however, the amount of missing data omits 44.4% of the respondents included in Model 1. Hence only very tentative insights may be drawn due to the reduced sample size for new variables regarding English language ability and income under consideration. English language ability increases the odds of business ownership, whereby spoken English (a little, and somewhat) and good English reading ability are the significant findings. Because of the amount of missing data, income plays no consequential role in the results.

Model Agreement

Of particular importance is the convergence and consistency of the models. Combining the models, a summary result for business ownership vis-à-vis agricultural workers indicates that (1) business owners are more likely to be male; (2) additional years of work experience as a U.S. farmworker increase the odds of business ownership; (3) the odds of business ownership increase for married farmworkers over those who are not married; (4) the more education a farmworker has achieved, the greater the odds that the farmworker will also be a business owner (with the odds increasing at every step up the educational ladder); (5) English language ability increases the odds of business ownership; and (6) farmworkers in the East, Southeast, Midwest, and Northwest are more likely to engage in business ownership than farmworkers in California and the Southwest.

Examination of Business Owners by Business Location (U.S. or Home Country)

In this section we examine the 500 business owners by location of their business. By business location, 69.4% of farmworker businesses are located in the U.S. and the remaining 30.6% are situated in the respondent's home country (no native-born U.S. citizen farmworker owned a business outside the U.S. in the NAWS data set). Table 3 reports the descriptive statistics for business owners divided between business owners with a location in the U.S. and those who own a business located in their home country (outside the U.S.), an overwhelmingly proportion of which are in Mexico (91.5%). For ease of discussion, "business in the U.S." refers to a U.S. farmworker and business owner with a business in the U.S., while "business in their home country" (or outside the U.S.) refers to a U.S. farmworker and business owner with a business in their country of origin.

Respondents who own a business in the U.S. are generally split between men (57.2%) and women (42.8%), and most are middle-aged (mean age is 41.0 years) and married (75.4%). Business owners in the U.S. mostly hail from the U.S. (72.4%) and in regards to nativity are primarily U.S. citizens (76.6%); of note, only about one-third identify as Hispanic, though one-quarter originate from Mexico and Central America. Nearly two-thirds of U.S. business owners possess a high school education or higher and are not very likely to migrate or cross international boundaries while working as a U.S. farmworker (4.3%). More than eight in ten U.S. business owners have the facility to communicate in English, and a majority (71.5%) is most comfortable conversing in English. U.S. business owners have worked on average 16 years as a farmworker in the U.S. and are overrepresented in the Midwest (42.9%) and underrepresented in California (11.0%) as compared to farmworkers more generally. Lastly, personal and family incomes are 1.5 and 1.8 times greater than average farmworker incomes, respectively.¹⁵

¹⁵ The primary source of income for business owners is farm work. Business owners who own a business in their home country work on average 19.6 weeks per year as a farmworker and 6.7 weeks as a non-farmworker, and spend another 4.4

weeks on average not working. Business owners who own a business in the U.S. work on average 28.9 weeks per year as a farmworker and 11.8 weeks as a non-farmworker, and spend another 11.3 weeks on average not working.

Respondents with a business in their home country are primarily male (81.6%), unauthorized to be in the U.S. (59.9%), Hispanic (94.7%), Spanish speakers (92.6%), and are relatively young (mean age is 33.0 years). Home country business owners also tend to be married (61.4%), and own their business principally in Mexico (91.5%). Few (16.3%) who own businesses in the home country possess educations beyond middle school or have the ability to communicate in English (13.1%), and most are on the move within the U.S. (75.5% are migrant farmworkers) and across the border to work as farmworkers (60.1% are international shuttlers). Home country business owners have worked on U.S. farms for a relatively short period of time (5 years on average) and are overrepresented in the East (22.5%) and Southeast (34.6%) and underrepresented in

Table 3. U.S. Farmworker Business Ownership Demographics at Time of Survey (1989–2009) by Country Location

Variable	In U.S.	In Home Country
Gender (%)		
Male	57.2	81.6
Female	42.8	18.4
Mean Age (std. dev.)	41.0 (12.2)	33.0 (10.7)
Civil Status (%)		
Single	19.7	38.6
Married/Living Together	75.4	61.4
Divorced/Separated/Widowed	4.9	0.0
Birthplace (%)		
U.S.	72.4	0.0
Puerto Rico	1.4	0.0
Mexico	23.9	91.5
Central America	1.1	5.9
Other	1.1	2.6
Education—Highest Grade Level Completed (%)		
None	1.4	2.0
Elementary (1–6 grades)	10.1	62.7
Middle School (7–9 grades)	9.5	19.0
Some High School (10–11 grades)	14.5	8.5
High School (12 grades)	36.7	5.2
Some College and Beyond	27.7	2.6
International Shuttler—Yes (%)	4.3	60.1
Migrant Farmworker—Yes (%)	14.7	75.5
Hispanic—Yes (%)	34.6	94.7
Speak English (%)		
Not at all	7.7	44.3
A little	12.6	42.7
Somewhat	9.3	3.1
Well	70.4	9.9
Read English (%)		
Not at all	9.5	66.2
A little	9.5	20.8
Somewhat	3.6	3.1
Well	77.5	10.0
Language Most Comfortable Conversing In... (%)		
English	71.5	0.0
Spanish	26.7	92.6
Other	1.7	7.4
Mean Years Worked on the Farm in the U.S. (std. dev.)	16.1 (12.6)	5.4 (5.2)
Interview Region (%)		
East	20.7	25.5
Southeast	9.5	34.6
Midwest	42.9	22.2
Southwest	2.3	2.6
Northwest	13.5	5.9
California	11.0	9.2
Adjusted Income (in 2009 U.S. dollars)		
Mean Personal Income (std. dev.)	20,323 (17,184)	13,142 (16,481)
Mean Family Income (std. dev.)	33,252 (21,026)	14,686 (17,051)
U.S. Immigration Status (%)		
U.S. Citizen	76.6	0.0
U.S. Green Card	14.7	6.8
Other Work Authorization	1.2	33.3
Unauthorized	7.5	59.9
Weighted N	347	153

Italics=Statistically different at the .001 level. There may be some errors due to rounding.
Source: Authors' calculation from the National Agricultural Workers Survey, 1989–2009.

Table 4. Logistic Regression Results (Odds Ratios) for Business Ownership by Country Location (Own business in U.S.=1)

Variable	Model 1 Exp(β)	Model 2 Exp(β)	Model 3 Exp(β)
Gender (Male=1) ^a	2.320	3.023	.324
Age (Years)	1.049†	.791‡	.778‡
Civil Status	---	---	---
Married/Living Together	2.446*	1.733	.552
Separated/Divorced/Widowed	1.331+E8	5.417E+9	6.804E+12
Birthplace	---	---	---
Mexico	.000	7.908E+9	1.371E+6
Central America	.000	1.037E+11	4.709E+6
Other	.000	2.005E+3	.798
Education	---	---	---
Elementary (1-6)	.443	.188	.161
Middle School (7-9)	.762	1.512	.465
Some High School (10-11)	.631	2.005	.243
High School (12 grades)	1.459	.003*	.002
Some College and Beyond	37.869†	146.145	90.835
International Shuttler (Yes=1)	.167‡	.498	.217
Migrant Farmworker (Yes=1)	-	.103*	.022†
Hispanic (Yes=1)	-	6.247E+6	1.162E+2
Speak English	-	-	---
A little	-	-	.176
Somewhat	-	-	6.741
Well	-	-	88.569
Read English	-	-	---
A little	-	-	1.394
Somewhat	-	-	.105
Well	-	-	.000
Language Most Comfortable Conversing In...	-	---	---
Spanish	-	.000	.000
Other	-	.000	.000
Years Worked on the Farm in the U.S.	-	1.350†	1.407‡
Interview Region	---	---	---
East	.116‡	.201	.177
Southeast	.111‡	.032†	.020†
Midwest	.220‡	7.497	133.197*
Southwest	.263	.260	.142
Northwest	.803	2.175	1.942
Personal Income	-	-	1.000*
Family Income	-	-	1.000†
U.S. Immigration Status	-	---	---
U.S. Green Card	-	.000	.000
Other Work Authorization	-	.000	.000
Unauthorized	-	.000	.000
Weighted N: All [Own/Buying a Business in U.S. Home Country]	499 [346 153]	439 [309 130]	277 [193 84]
Model Diagnostics -2LL	193.158	71.769	49.947
χ ²	420.641‡	461.727‡	289.960‡
Cox & Snell R ²	.570	.650	.649
Nagelkerke R ²	.805	.925	.918

^a Reference categories: Gender=Male, Civil Status=Single; Birthplace=Born in U.S./Puerto Rico; Education=None; International Shuttler=Yes; Hispanic=Yes; Speak English=Not at all; Read English=Not at all; Language Most Comfortable Conversing In=English; Interview Region=California; U.S. Immigration Status=U.S. citizen. Significant at the * $p < 0.10$; † $p < 0.05$; and ‡ $p < 0.01$ levels. Note: “---” variable included in the model, “-” variable excluded from the model. Source: Authors’ calculation from the National Agricultural Workers Survey, 1989–2009.

California (9.2%) as compared to farm-workers generally. Home country business owners earn annual incomes (mean annual personal income is US\$13,142) similar to U.S. farm-workers at large.

Similar to the analysis reported in Table 2 and following the method employed in Table 2, we utilized a logistic regression¹⁶ to differentiate U.S. business owners (=1) from home country business owners (see Table 4). In the first model comprising 99.8% of all business owners in the NAWS, age, civil status, education, international shuttling, and interview region were significant in the analysis. Each additional year of life increased the odds of U.S. business ownership by 4.9%. Marriage increased the odds by 145% for U.S. business ownership over their non-married home country owned business counterparts. Education is a key differentiator,

¹⁶ Logistic regression diagnostics across all three models are acceptable.

with the odds of the college-educated owning a business in the U.S. 36.9 times greater than those owning a business in their home country with no formal education. Shuttling across the border to engage in farm work also is an important partition for location of business ownership, where shuttling reduces the odds by 83.3% of owning a U.S.-based business in reference to owning a business situated outside the U.S. Lastly, the odds of owning a business in the U.S. among respondents in the East, Southeast, and Midwest were much lower, 88.4%, 88.9%, and 78.0%, respectively, as compared to those business owners interviewed in California.

Model 2 permits more variables to be included in the analysis, although the sample of business owners is reduced by 12.2% due to missing data. Unlike model 1, an additional year of age reduces the odds of owning a U.S. business by 2.1% per year. Education, at least for the specific segment having completed high school as compared to those with no education, also reduces the odds of U.S. business ownership by 99.7%. Work as a migrant farmworker also decreases the odds of U.S. business ownership by 89.7%. Yet longer service as a farmworker increases the odds of U.S. business ownership by 3.5% per year worked as a U.S. farmworker. Lastly, the odds of U.S. business ownership for respondents interviewed in the Southeast are reduced 96.8% as compared to respondents interviewed in California.

Model 3, comprising all the independent variables, includes only 55.4% of the business owner sample, so these results are tentative based on the reduced sample size. As in model 2, age and migrant work status are inversely related to the odds of U.S. business ownership—that is, each additional year reduces the odds of U.S. business ownership by 22.2%, and work as a migrant farmworker reduces the odds of U.S. business ownership by 97.8% in relation to non-migrant farmworkers. Years worked on a U.S. farm increase the odds of U.S. business ownership by 40.7% per additional year worked. And while income is positively associated with the increased odds of U.S. business ownership, the effect is negligible. As compared to those interviewed in California, respondents interviewed in the Midwest increase their odds of U.S. business ownership 132.2 times,

whereas those interviewed in the Southeast find their odds of U.S. business ownership reduced by 98.0%.

In summary, the multivariate findings for business ownership in the U.S. include: (1) mixed results for age across models, although results for the entire sample suggest that maturity is associated with U.S. business ownership; (2) college education enhances the odds of U.S. business ownership; (3) respondents on the move (shuttling and migrant work) have reduced odds of owning a business in the U.S.; and (4) mixed results by interview region provide little help in distinguishing regional business ownership trends.

Discussion

While the NAWS does not identify business owners operating their enterprises as formal or informal concerns, citizenship and work authorization aligns with the country where the business is located. As such, most business owners can choose to operate a formal business, and most likely do so. However, previous research has uncovered that work-authorized residents on either side of the South Texas–Northern Mexico border engage in informal entrepreneurship to maximize business opportunities (Pisani & Yoskowitz, 2006; Richardson & Pisani, 2012). The remainder of this section is partitioned into two segments: the first discusses the results for business ownership vis-à-vis non-business ownership for agricultural workers, and the second discusses the results for business ownership in the U.S. versus home country among agricultural workers.

Business Ownership vis-à-vis Non-business Ownership

The overall count of business owners is heavier early in the survey sample years. This may be the result of regularization of immigration status for many who came before 1986 and benefitted from the passage of IRCA as well as stricter border enforcement (Gentsch & Massey, 2011) in subsequent years, making the cost of crossing the border more expensive for those who shuttle across the international border and in turn limiting funds and savings for other purposes such as business ownership. Hazán (2014) also found that the proportion of returning migrants to Mexico who engage in

self-employment has fallen precipitously since 2005, and even fewer employ others.¹⁷ Additionally, stronger connections to the U.S. spur business ownership, particularly with regard to U.S. nativity, English language ability, and length of service as a U.S. farmworker. Those less likely to engage in migrant farm work have increased odds of owning a business; unless the business itself is itinerant, this follows a more established pattern of business development in a fixed location. Relationship stability and partnership created through marriage, as in stability in location, may also foster an environment conducive to business formation. There is a robust association between progressively higher levels of education and business ownership, indicating that increased investment in human capital through education translates into opportunity recognition in the form of business ownership. Women possess higher levels of education relative to men for both business owners and farmworkers, yet overall the odds are greater that men are business owners, perhaps due to household resource control. Lastly, business owners outside California are able to seize upon business opportunities in larger proportions, perhaps the result of co-ethnic market saturation in California.¹⁸

Business Ownership in the U.S. Versus Home Country

The higher percentage of business ownership in the U.S. reflects a proportionally higher incidence of U.S. birth origin as well as permanency of U.S. residence. U.S. business owners may more easily navigate the U.S. business environment because of their comfort level operating in English, educational attainment, and geographic and family stability. Women own nearly as many U.S. businesses as men. Surprisingly, only one-third of U.S. business owners self-identify ethnicity as Hispanic, whereas nearly 80% self-identify racially as white,

14% as other, and 4% as black. The rate of Hispanic business owners and agricultural workers, like their Hispanic business owner counterparts in the general U.S. workplace, fall below the U.S. average. Dávila and Mora (2013) have argued that institutional and demographic constraints, such as credit rationing, discriminatory borrowing terms, and cultural reluctance to seek debt financing, may lead to this outcome.

For those business owners with a business outside the U.S., nearly all of these businesses are located in Mexico. These business owners correspondingly possess strong natal and cultural (e.g., language, ethnicity) ties to Mexico and strong migratory links to Mexico and U.S. field crops. Within this group, the ability to conduct business at home is not limited by age, education, or time spent away in the U.S. While the literature is mixed as far as remittances and agricultural investment (Böhme, 2014), it appears that earnings from U.S. farm work may facilitate business formation for some (upwards of 20% devoted to small business investment ranging from US\$2,700 to US\$5,400 in one study of returning Mexican migrants [Hazán, 2014], but only 8% in another study [Cohen & Rodriguez, 2004]), but not for many cross-border migrant farmworkers in their home country.¹⁹

Two Case Studies Exhibiting the Pathway to Business Formation in the U.S.

While the NAWS does not provide additional information as to the type of business owned by farmworkers, we introduce two anecdotal case studies to suggest possible pathways agricultural workers may demonstrate in their entrepreneurial endeavors.²⁰ Both of these illustrate the cases of Mexican migrants who came to the U.S. as undocumented agricultural workers and over time leveraged the knowledge of their agricultural experiences into business ownership.

¹⁷ In 2005, 26.4% of returning Mexican migrants were self-employed in Mexico upon their return. This proportion dropped to 14.9% by 2012, and only 5% of returning Mexican migrants employed others in 2012 (Hazán, 2014).

¹⁸ The 2012 Survey of Business Owners conducted by the U.S. Census Bureau tabulates over 818,000 Hispanic-owned businesses in California, accounting for 25% of all Hispanic-owned businesses in the U.S.

¹⁹ The literature is clear with regard to remittances augmenting consumption in the receiving communities.

²⁰ These two cases are embedded in the public record (see Quinones, 2007, chapter 2, and Berryessa Gap website [<http://www.berryessagap.com>]) and the subjects are known personally by the first author, who is a native of Winters, California.

Tucked into the trunk of a car, Andrés Bermúdez and his pregnant wife Irma crossed the U.S.–Mexico border clandestinely in 1973 from Tijuana to California. Their U.S. journey began as undocumented migrants looking to improve their lot in life by finding work in the U.S. Andrés came from an impoverished rural hamlet in Jerez, Zacatecas, Mexico. There his family owned a few cows, sold cheese in the local marketplace, and barely had enough resources to survive. But not all survived; as a child Andrés watched his baby sister succumb to the flu for lack of adequate medical treatment.

But 1973 was not Andrés' first entry into the U.S.; he had successfully found agricultural employment in the Sacramento Valley of northern California in 1970 at age 20. Andrés was simply returning to work after securing transit for his Mexican wife. Andrés, like tens of thousands of his compatriots, flocked to small agricultural towns across California and the U.S. to provide field and agricultural labor in a labor market increasingly dominated by Mexican foreign nationals as the native-born retreated into less arduous employment. What sets Andrés apart from the multitude of agricultural workers is his work trajectory from field worker to business owner, a process that took more than 20 years.

Not unlike many of the agricultural worker/U.S. business owners in the NAWS sample, where 69.4% had purchased or were in the process of buying a plot of land in the U.S. at the time of the survey, Andrés too was able to save up and buy his own plot of land while he transitioned from full-time agricultural worker to full-time business owner. Throughout this process, his work on the farm morphed from farmworker, to foreman, driver, and labor contractor. Along the way, Andrés benefitted from the Immigration Reform and Control Act of 1986, through which he was able to regularize his immigration status first as a U.S. green card holder and then as a U.S. citizen.

The region of California (Yolo County) where Andrés worked was tomato country, though many other crops and fruits are also grown in the area. But it was tomatoes that eventually transformed Andrés' life. He invented a machine that facilitated the transplant of tomato seedlings from

greenhouse to field. This invention allowed Andrés to slowly transition from farmworker to business owner; because of this invention, he eventually became a grower and relatively wealthy farmer. For many Mexican migrants, Andrés Bermúdez became *el rey de tomate* (the tomato king) and a flamboyant “rags to riches” role model.

Andrés' success was noticed, not only in his adopted hometown of Winters, but also in his natal hometown of Jerez. Even the governor of Zacatecas came to Winters in 2000 to fête Andrés. Election laws changed in Mexico to allow expatriates the opportunity not only to vote, but to run for political office. Andrés Bermúdez became the first immigrant elected mayor in Jerez, Zacatecas, in 2001, was re-elected in 2004, and eventually served as a Mexican congressman with the *Partido Acción Nacional* (PAN). Andrés met an untimely death in 2009 at the age of 58 from stomach cancer.

As a young man, Santiago Moreno left his native Jalisco, Mexico, in the late 1970s and shortly thereafter arrived undocumented in Winters, California. Santiago followed a familiar route like many in his community in Jalisco, traveling clandestinely across the border to find agricultural work in California. Santiago not only found agricultural employment, but also supplemented his agricultural earnings with a second informal job mowing lawns, which allowed him to reside full-time and begin a family in Winters.

Santiago had a penchant and “green thumb” for trees, plants, and vines, and his botanical acumen was discovered early on by one of his first employers. With his employer, Santiago was identified to help and partner in the development of a budding rootstock nursery for grapevines in the latter half of the 1980s. Santiago was especially adept at growing rootstock in a region known for producing fine wines. (Winters is located on the east side of the California Coastal range about 30 miles [48 km] from Napa in Yolo County.) Nevertheless, the rootstock endeavor began as a secondary source of income while Santiago worked his way up in his primary occupation, moving from agricultural laborer to field manager and then operational supervisor of a small prune dehydrator.

The passage of IRCA regularized Santiago's

immigration status at a propitious moment in time (the late 1980s) as Santiago held part-interest in the rootstock nursery. With regularization of status, Santiago became a full legal business partner with his agricultural employer by the early 1990s in the rootstock nursery. Throughout the 1990s Santiago also maintained his position as a field supervisor and prune dehydrator manager.

The continuing boom in California wines transformed and expanded Santiago's agricultural business holdings in the new millennium to winemaker, as a part owner of Berryessa Gap Vineyards (in 2004). Santiago Moreno, while less flamboyant than Andrés Bermúdez, nevertheless still leads by example as he continues his work in the fields and in the winery providing grapes for Berryessa Gap Winery and others in and around Winters. Interestingly, the farm in which Andrés worked during his early, undocumented years in Winters is now part of the production facilities for Berryessa Gap.

Both Andrés Bermúdez and Santiago Moreno arrived in Winters, California, in the 1970s as landless, undocumented immigrants from Mexico. Within two decades, both had become entrepreneurs and normalized their immigration status to U.S. citizen through the procedures offered by IRCA. The business ownership trajectories of these two agricultural laborers are representative of the empirical analysis presented above of U.S. business ownership where male, middle-aged, married, experienced, and settled agricultural workers in California are more likely to become business owners.

Agricultural work and ingenuity provided a pathway toward entrepreneurship and business ownership. No doubt both Andrés Bermúdez and Santiago Moreno are exceptional examples of agricultural workers and entrepreneurs who have leveraged their agricultural experiences into business ownership. With over 1 million agricultural workers in the U.S., there are approximately 10,000 or more stories like that of Andrés Bermúdez and Santiago Moreno.

Conclusion

This paper has explored the determinants of membership in the exceptional one percent of U.S. farmworkers who are also business owners by analyzing the NAWS for the years 1989 to 2009. The exceptional one percent own businesses in the U.S. or their home country (that is, Mexico for all intents and purposes). Implications for business growth and entrepreneurship abound where even in the most trying of occupations—agricultural work—entrepreneurial outcomes are possible for agricultural workers as chronicled in the case studies of Andrés Bermúdez and Santiago Moreno and described in the empirical analysis above. Fostering business growth from this group, and like groups, requires an adjustment of public policy outlook where entrepreneurship is seen as an engine of economic growth and community development, the genesis of which may come from unexpected places. Holcomb (2008) suggests, then, a shift in emphasis “toward the creation of an environment within which opportunities for entrepreneurial activity are created, and successful entrepreneurship is rewarded” (p. 71).

Our analysis suggests that nurturing business growth from this group of agricultural workers within the U.S. requires investment in human capital, most notably education and English language acquisition, as well as the regularization of immigration status that permits stability and institutional access for men and women. Education has the largest effect on improving the odds of agricultural workers becoming business owners, and college-level education more so. Not only is early childhood education and Migrant and Seasonal Head Start important, our research also illustrates the potential positive externalities of such policy initiatives as in-state tuition initiatives for undocumented students currently available in 18 states (National Conference of State Legislatures [NCSL], 2015) and the adoption of the federal DREAM Act.²¹ Continued support of English as a second language and use of the existing kindergarten-through-twelfth-grade public education

²¹ The proposed DREAM Act is an acronym for Development, Relief, and Education of Alien Minors, which in part would allow for the regularization of immigration status for

undocumented persons brought into the U.S. before the age of 16 if they attend an institution of higher education for two years or serve honorably in the U.S. military for two years. A

infrastructure will assist in English language acquisition. Lastly, comprehensive immigration reform, regularizing the status of the nearly 12 million undocumented in the U.S., 8 million of whom work (Passel & Cohn, 2014) with perhaps as many as 450,000 in any given year working in agriculture, would liberalize institutional barriers to business ownership and allow for a more public process of co-ethnics assisting one another without fear of government retribution. Auxiliary training in basic business skills and regulatory compliance may be funneled through existing channels such as the Small Business Administration with sensitivity to the need to offer services in Spanish.

Mexico, on the other hand, should continue its efforts to transform the flow of remittances from consumption into productive investments (both private and public) and to pursue institutional reforms in the ease of doing business.²² One innovative Mexican program is the *tres por uno* (three for one) match provided by the Secretariat for Social Development (*Secretaría de Desarrollo Social*, or SEDESOL). For every one peso sent to Mexico, the Mexican government will match 3 pesos to the donation in a specific location (SEDESOL, 2015). In essence, this triples the impact of remittances, primarily for local infrastructure projects (e.g., roads, potable water). Another way to further enhance economic growth would be to redirect the flow of some of these remittances and matches to the entrepreneurship ecosystem, such as new venture funds for start-up businesses, incubators, and accelerators. Orrenius, Zavodny, Cañas, and Coronado (2010) suggest that much of the remittance flow to Mexico enhances consumption and reduces unemployment and income inequality (because of outflow migration from poorer areas, which also allows for those left behind to leave the workforce due to incoming income flows). The World Bank comprehensively tracks the ease of doing business by country. Mexico ranks 38th overall, first in Latin America but far behind the U.S., which places 7th in the ease of doing business (World Bank, 2015). Additionally, the institutional

environment permits widespread informality, where nearly 60% of Mexicans work in the informal sector (International Labour Office, 2014). In both cases, Mexico is working toward erasing regulatory barriers in the formal economy and welcoming the informal sector within the general economy.

A limitation of using the NAWS as a marker of business ownership is the lack of follow-up questions concerning the business enterprise, such as ownership shares, specific locale, and business formality. However, further qualitative research may complement the NAWS in providing more extensive case-study accounts of business ownership in the U.S. and home country. 

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state version of the DREAM Act is available in a handful of states, including California (Clark-Ibáñez, 2015).

²² The World Bank has been reporting the “ease of doing

business” by country for many years. See the index at <http://data.worldbank.org/indicator/IC.BUS.EASE.XQ>

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Justice issues facing family-scale farmers and their laborers in the Northeastern United States

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Abstract

This study investigates how justice-related issues affect farmers and workers on organic farms in the northeastern United States. At the study's core is an examination of the current context of laborers in organic agriculture in the U.S. Northeast. The study analyzes the results of an online survey of Northeast Organic Farming Association (NOFA) farmer members to gather information about who labors on organic farms in the NOFA network and

what unique justice issues they face. The survey results indicate that most of the farms within the network are small-scale and rely heavily on family members and volunteers for labor. Many of the justice issues related to labor arise from the difficulties these farmers experience achieving financial viability. This study increases understanding of the broader systemic context within which small-scale organic farmers make their commitments and decisions, and it illustrates how the justice-related experiences of both farmers and workers are affected by participation as small-scale organic farms in the larger agricultural system.

Keywords

organic farming, Northeastern United States, farm labor, small-scale agriculture, family-scale agriculture, family farms, farmworkers

Introduction and Literature Review

In conventional farming, much justice-related

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research focuses on pesticide use and its effects on worker health (e.g. Moses, 1989; Oxfam America, 2004; Reeves, Katten, & Guzmán, 2002; Sologaistoa, 2011), as well as effects of immigration policies and the exploitation of immigrants due to conventional agriculture's reliance on workers from outside the United States (e.g. Stephen, 2003; Taylor, 1992; Wilson & Portes, 1980). In addition to pesticide exposure and exploitation of immigrant farmworkers, many farmworkers experience a host of other injustices, including substandard housing, that pose further environmental health risks (Arcury, Wiggins, & Quandt, 2009). Arcury, Wiggins, and Quandt state that in the eastern United States,

Although farmworkers experience high rates of occupational and environmental injury and illness, few programs and regulations have been designed to help reduce these outcomes. Farmworkers and their families in the eastern US seldom have health insurance, and many of them have limited access to health care. The few efforts to reduce farmworker injury and illness seldom consider the culture and educational attainment of farmworkers or the effects of a migratory lifestyle. Long-term consequences of occupational and environmental exposures are virtually unknown. (2009, p. 223)

While pesticide exposure is not a primary concern in organic agriculture, the economic justice issues facing organic farmers and workers in the northeastern U.S. are consistent with many of the challenges faced in conventional agriculture, such as inadequate pay, lack of housing, intense market competition, and health-related problems due to the strenuous nature of the work. However, the reasons for these issues may differ in the organic farming sector. In small-scale organic farming, the issues largely come from a lack of systemic infrastructure within which the farmers themselves can make enough income to support and enact their values of justice and sustainability (Berkey, 2014; Shreck, Getz, & Feenstra, 2006). Thus small-scale organic agriculture and its farmers and laborers can

be considered a population marginalized within the larger political-economic landscape of U.S. agriculture.

Who are these farmers and workers on small-scale organic farms in the northeastern U.S.? It turns out that the answer is not easily uncovered. The U.S. Department of Agriculture (USDA) National Agricultural Statistics Service's (NASS) 2014 Census of Agriculture Organic Production Survey counted 14,048 organic farms and ranches in the United States, totaling 3.67 million acres (1.49 million hectares) of land (USDA NASS, 2015). Of those farms, 12,595 were USDA certified organic and 1,453 were exempt from certification (USDA NASS, 2015). That survey also found that California leads the nation with more than 687,000 acres (278,000 ha) harvested on certified or exempt farms (USDA NASS, 2015). California is followed by Montana, with organic growers harvesting more than 317,000 acres (128,000 hectares) (USDA NASS, 2015). Wisconsin, Oregon, and New York follow with more than 200,000 acres (81,000 ha) of organic field crops harvested in each (USDA NASS, 2015). According to the 2012 Census of Agriculture, nationally 88 percent of all farms fall under the USDA definition of a small farm, which is an operation that sells less than US\$250,000 in agricultural products annually (USDA NASS, 2014).

While these reports offer a useful snapshot of organic agriculture nationally, including who works on different types of farms and farm types predominant in different regions of the country, they offer little decisive information that tells the story of farmers and laborers on organic farms in the northeastern United States. With this in mind, we sought to understand who these farmers and laborers are and what justice-related challenges and supports they experience. We conducted this research in collaboration with the Northeast Organic Farming Association (NOFA) to address the question: *How do various justice-related issues (including competition in the market, pay, housing, and health) affect farmers and farmworkers on organic farms in the northeastern U.S.?*

NOFA is a coalition of seven state chapters whose purpose is "to advocate for and educate on organic and sustainable agriculture, family-scale

farming and homesteading in rural, suburban and urban areas, agricultural justice and other related policy issues” (NOFA, n.d., para. 1). In conversation with the NOFA Interstate Council, which serves as the board of the NOFA chapters’ coalition, we designed a mixed-methods study (Berkey, 2014) to both answer the research question and inform NOFA’s program and policy activities. In this paper, we share a portion of that study: The results of a survey of NOFA farmer members, which deepen understanding of who labors on organic farms in the northeastern U.S., the justice-related issues they face, and the political-economic context in which these issues occur. This understanding can help inform coalition-building through organizations like NOFA toward transforming the political-economic landscape of U.S. agriculture and increasing justice for small-scale organic farmers and their workers. We will use the term “Northeast” throughout this article in reference to the northeastern region of the United States, consisting of the seven states in which NOFA operates: Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.

Before continuing, it is essential to clarify the language we use to describe the participants in this study. The research questions were shaped using the terms “farmers” and “farmworkers,” who are traditionally presented as distinct categories in the research literature. However, these terms are not mutually exclusive within organic agriculture in the Northeast. We use the term “farmer” to describe the farm owner, although these farmers were themselves also laborers. We use the terms “farmworker,” “worker,” and “laborer” to describe those working on the farms who did not have ownership responsibilities. These farmworkers also brought valuable experience and knowledge to food production and thus could be considered farmers. Because this research was originally framed as involving “farmers” and “farmworkers” based on the literature, and because we communicated with participants in the study using those terms, we keep this language intact throughout what follows, while recognizing that these terms are not mutually exclusive nor fully capture the nuances of reality.

Applied Research Methods

Survey Design and Administration

The survey was co-developed with input from the NOFA Interstate Council, which is one of the groups involved with steering the direction of the organization and implementing any changes (in policy and/or training) seen as necessary based on the findings. Parts of the survey mirrored a survey conducted by the nonprofit organization Florida Organic Growers, which was funded by a Southern Sustainable Agriculture Research and Education grant, offering the possibility of comparable data collected from the two regions.

The survey included 36 items asking questions about the market for organic products, including where farmers sell their products, and issues they encounter (if any) with their major buyers, pay for workers, housing, attitudes toward policies such as Unemployment Insurance thresholds, membership in organizations like NOFA, and benefits farmers derive from those memberships. In addition, the survey asked about farmers’ values and practices related to farming organically, such as whether they do so because it is a family tradition, whether they uphold ideals about the environment, etc. The survey enabled us to explore farmers’ perceptions of the opportunities, challenges, and pressures related to justice that are specific to organic farms, farmers, and farmworkers. Four open-ended questions inquired about what supports and constraints farmers found in aligning their practices with their beliefs and values, as well as what supports and challenges they faced in the market for their product. To address potential threats to reliability and validity, we aligned survey questions with the conceptual constructs being measured, used practices of good survey design (Dillman, Smyth, & Christian, 2009), incorporated feedback based on review of a pilot survey by NOFA Interstate Council members to ensure questions were interpreted as intended, and emphasized confidentiality in the survey introduction to encourage farmers to respond honestly.

In describing our data collection methods it is important to clarify the rationale through which sampling decisions were made. The survey population constitutes all of the units to which one

desires to generalize survey results. While for this survey it would be desirable to generalize the results to all the farmer-members of NOFA and/or organic farmers in the Northeast, it is important to note that the results collected are only representative of those farmers who completed the survey. This is because the sample frame, or the list from which the sample was drawn to represent the survey population, was unavailable to us under the research agreement with NOFA. Thus the sample consisted of all NOFA members and organic farmers who received an invitation to participate and then chose to complete the survey, consistent with a volunteer sampling method. While all members of each NOFA state chapter received the survey through email distribution and information at their annual meetings, the results of the survey are not representative of the whole population but rather describe the opinions and experiences of those who completed it (Dillman et al., 2009).

We administered the survey using Survey-Gizmo, an online survey tool, and distributed the link to complete it via a shortened URL (using the tinyurl website) to improve participants' ability to successfully locate it, particularly from printed recruitment materials. The survey opened for responses on January 2, 2013, and closed on March 15, 2013. An invitation to participate was sent electronically on multiple occasions to all members (approximately 1,250 in NOFA through their chapters in the seven Northeast states) using a variety of email lists that reach NOFA farmer members. In addition, we distributed recruitment materials in print at state chapters' annual meetings. Participants had the option of filling out the survey via paper and mailing it back in a postage-provided envelope. Examples of recruitment materials are included in Appendix A, and the survey questions we will discuss in this paper are listed in Appendix B.

Estimated Response Rate

We received 357 usable survey responses from NOFA farmer members. Because the survey was distributed through various email newsletters and word-of-mouth at conferences and meetings and administered through SurveyGizmo, it is difficult to identify with precision the overall response rate.

However, it is possible to arrive at a rough calculation of the response rate based on estimates given by NOFA of the number of farmer-members to whom the survey was distributed. Per information collected by NOFA's Interstate Council, there are about 5,000 members of NOFA across their network, approximately one-quarter of whom are farmers. Based on these estimates, then, the total number of the population from which this volunteer sample was drawn is 1,250 farmers, indicating a 28.6% response rate overall.

Although the survey sample was not intended to be representative of all organic farmers in the Northeast, it is useful to have some sense of the extent to which the number of respondents in each state compares to the population of organic farmers in that state. Because data were unavailable from each of the NOFA state chapters on exactly how many farmer members they had, we used publicly available data from the USDA (USDA NASS, 2015), from which we pulled the number of total organic farmers to whom the survey would apply in each of the 9 states sampled (these were the 7 NOFA states with the addition of Pennsylvania and Maine). It is important to note that the USDA numbers represent *certified or exempt* organic farms and that some NOFA members are not certified although they use organic practices. In addition, the numbers are from the 2014 Organic Survey, so they are likely not the same as our sample given the timeframe of our survey (2012). Therefore, at best these numbers are estimates to gain a sense of the participation rate and where participants fit into the broader population of organic farmers in the Northeast. We did not ask respondent farmers whether their farms were certified organic, so it is difficult to ascertain how representative our sample is of those certified or exempt in each state. In addition, because the survey was distributed throughout multiple channels and those who completed it did so on a volunteer basis, it is possible that those who responded did so because of some particular characteristic such as utilizing good labor practices on their farms, which may have skewed the data.

Table 1 indicates the number of survey respondents and number of certified organic farms in each state. While the survey sample was not a

probability sample, comparing these figures suggests what proportion of organic farms in each state is captured among survey participants. This comparison shows that in some states, including Rhode Island, Connecticut, Maine, New York, and Massachusetts, the survey respondents, while not a representative sample, reflect between 12 and 29% of the organic farms in that state. In New Hampshire, respondents could account for upward of 47% of the organic farms in the state. On the other hand, the percentage of survey respondents in Pennsylvania, Vermont, and New Jersey is so low when compared to the total number of certified and exempt organic farms that it cannot be concluded that they reflect well the experiences and attitudes of the organic farmers within that state.

Because of the nature of this survey and its focus on labor characteristics, constraints, and opportunities, as well as farmer values and involvement in NOFA and other organizations (reported in Berkey, 2014), we did not gather information on farm size or the predominant products on each farm. In hindsight, this is a limitation of our study as we acknowledge that the size of the farm and the products grown, raised, and harvested affects the labor needed on the farm, as well as the conditions in which those workers find themselves. We did gather information on the markets in which respondents sold their products

as reported in the Results below.

Data Analysis

Priority areas for data analysis were determined in two ways: (1) alignment with the research questions, and (2) collaborative dialogue with the NOFA Interstate Council. In this paper, we report the results of analysis focused on who works on the farms; information on pay, benefits, and working conditions for workers and their relationship to worker retention; and types of technical assistance sought by NOFA members, including written labor policies. In some instances, data analysis was stratified by state to meet NOFA's organizational needs.

Data were extracted from SurveyGizmo, cleaned, and sorted for analysis, which was primarily descriptive. Correlations were examined between some responses, such as amount of pay and worker retention as well as worker benefits and worker retention. Most analysis was conducted using Excel's descriptive statistics, with the exception of ANOVA and standard deviation calculations, which were conducted using SPSS. Responses to open-ended questions underwent inductive content analysis (Blackstone, 2012; Glaser & Strauss, 1967), which consisted of sifting through the responses to identify themes that emerged from the data itself through repeated

examination and comparison. This was done by reading and rereading the responses and organizing them into like categories with the aid of Dedoose, a cloud-based qualitative data analysis tool (<http://www.dedoose.com>). In addition, notes were made about consistent themes that did not answer the question at hand or where respondents responded to the questions about supports and challenges with "none."

Results

In what follows, we describe the survey results, including

Table 1. Comparison of Number of NOFA Farmer-Members Responding to Survey and Number of Certified and Exempt Organic Farms in Each State

State	# Respondents (N=357)	Total # of Certified Organic Farms in State	Percentage Respondents Based on Total Number of Organic Farms*
Connecticut	16	122	13.11
Massachusetts	32	179	17.88
Maine	68	517	13.15
New Hampshire	70	150	46.67
New Jersey	7	87	8.05
New York	118	917	12.87
Pennsylvania	18	679	2.65
Rhode Island	7	24	29.17
Vermont	21	542	3.87

* Sample was not a probability sample drawn from this population, but a volunteer sample of NOFA farmer-members in each state.

the types of labor found on these farms, the length of time workers have been on the farms, payroll ranges and benefits for workers, and whether farmers have written labor-related policies. To provide context for interpreting the labor-related results, we begin with data about the markets through which respondents sell their organic products.

Markets

The survey asked, “Of the total 2012 gross sales of all organic products from your operation (including value-added or processed products) approximately what percentage was marketed through the follow types of sales?” Response options were: Consumer Direct Sales, Direct-to-Retail, and Wholesale Markets. Of the 269 respondents who answered under Consumer Direct Sales, 51.3% indicated some percentage of their sales as both on-site at the farm and at farmers markets; sales via mail order or Internet came in at the lowest percentage in this category (14.5%). Of the 238 respondents who answered the question pertaining to their Direct-to-Retail sales, 37.4% sell directly to restaurants and caterers, 33.6% sell directly to natural food stores, and only 4.6% sell directly to conventional supermarkets. Finally, of the 210 respondents who responded to the question about their distribution in wholesale venues, the highest percentage (11.4%) indicated selling to a distributor, wholesaler, broker, or repacker. Only 3 of the 210 respondents indicated that they distribute to a buyer for conventional supermarket chains. These responses give us some insight to the most important markets for participant farms.

Types of Labor on Farms

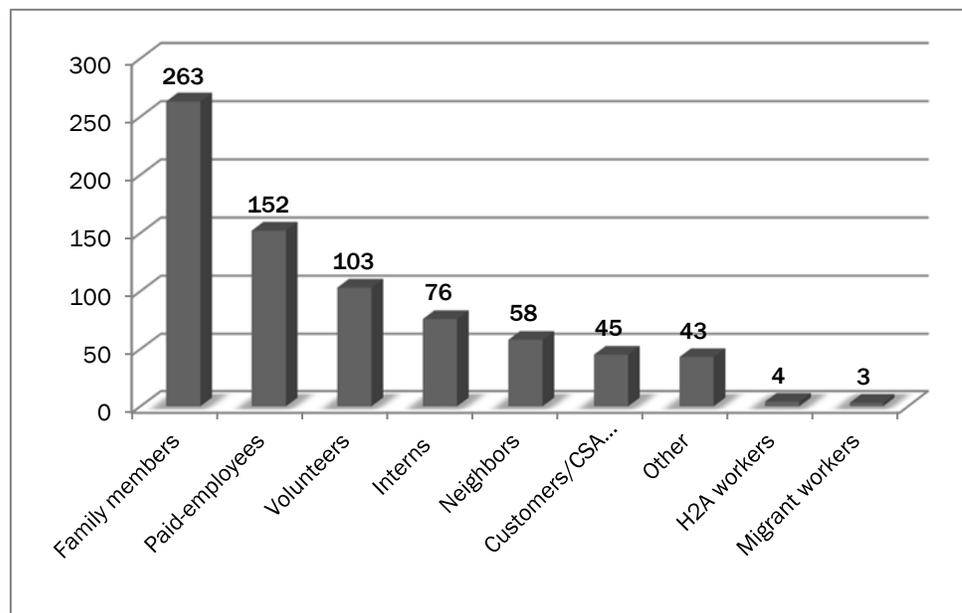
All 357 respondents answered the series of

questions about the types of labor they use on their farms. As shown in Figure 1, the overwhelming response was “family members,” which is not surprising given that the Northeast is known for its small-scale, family farming. As Figure 1 depicts, a large share (74%) of farms use the labor of family members, followed by paid employees (43%), volunteers (29%), interns (21%), neighbors (16%), and customers and/or community supported agriculture (CSA) members (13%). Note that the categories are not mutually exclusive, meaning that a farmer could check more than one when referring to the same worker (e.g., “Paid employees” could also be “Family members”). For those who answered “other,” responses included spouses, developmentally disabled adults, youth needing community service hours, people fulfilling court-mandated community service, and “WWOOFers” (people involved in the World Wide Opportunities on Organic Farms network), among others.

Number of Laborers on Farms by Type

For all workers, respondents were asked “Please tell us how many people worked on your farm and were [PAID] [NOT PAID] for each category in the 2012 calendar year. ‘Year Round’ is anyone who is a 12-month employee of your farm and ‘Seasonal’ applies to anyone working less than that. If no one

Figure 1. Number of Farms by Type of Labor (N=357)



in that category worked on your farm in 2012, please enter 0.” Table 2 indicates the total number and mean for each type of worker reported. As these tables demonstrate, many farmers depend largely on unpaid workers, namely in the form of seasonal volunteers and customers/CSA members. The survey did not ask how many hours per week or season each type of laborer contributed, the size of the farm, nor the products produced; therefore, comparisons between worker types using these variables is not possible.

Length of Time Working on Farm

Another important concern with respect to labor is retention. Thus respondents were asked, “What percentage of your workers in 2012 were in their first year working on your farm?” A higher percentage of workers on the farm in their first year would indicate lower retention from the previous year or that the farm was new. Figure 2 summarizes the results of the responses to this question

and shows that retention results were bimodal in distribution: nearly half (48%) of the farms reported that they had less than 10% new workers, while nearly one-third (32%) reported that over 40% of workers in their first year on the farm.

In addition to quantitative data collected through the survey, numerous open-ended questions throughout the survey asked farmers to further explicate their responses. Many participants wrote a great deal of information; the primary themes are summarized below using illustrative quotes. Figure 3 illustrates the five major themes that emerged when participants were asked about their labor challenges in retaining a stable workforce.

As one participant stated, “Being able to provide adequate housing. Being able to provide long-enough seasonal work. Being able to pay a living wage...health care, insurance...all the NOTs are very challenging!” Another farmer pointed out:

Lack of investing knowledge in workers/interns, therefore creating a higher turnover rate seasonally. When interns are treated like day wage laborers (cheap labor, ‘slave’ labor) they have no incentive to continue working for the farm, instead seeking out better pay, rather than being paid a lower salary with contributing factor being education.

Finally, one of the participants identifying the difficulty of H-2A paperwork wrote, “We pay a very high premium to government to bring in legal H-2A workers because Americans don’t

Table 2. Total Number and Mean Number per Farm of Laborers by Type, Paid and Unpaid Laborers (N=357)

Labor Type and Time on Farm	Total Paid Labor	Mean Paid Labor	Total Unpaid Labor	Mean Unpaid Labor
Full Time, Year Round	400	1.33		
Full Time, Seasonal	204	0.66		
Part Time, Year Round	203	0.71		
Part Time, Seasonal	373	1.12		
Family Members, Year Round	156	0.54	228	0.74
Family Members, Seasonal	134	0.48	197	0.66
Interns/Apprentices, Year Round	28	0.07	16	0.05
Interns/Apprentices, Seasonal	105	0.33	97	0.34
Neighbors, Year Round	11	0.04	16	0.06
Neighbors, Seasonal	85	0.31	148	0.52
Customers/CSA Members, Year Round	302	1.12	247	0.86
Customers/CSA Members, Seasonal	423	1.6	2,394	8.23
Migrant Workers, Year Round	0	0	0	0
Migrant Workers, Seasonal	29	0.11	0	0
H-2A* Workers, Year Round	2	0	0	0
H-2A* Workers, Seasonal	4	0	0	0
Volunteers, Year Round			507	1.73
Volunteers, Seasonal			1,730	6.18
TOTAL	2,459		5,580	

* These are guestworkers who are in the country on a temporary visa called H-2A, which allows them to work in U.S. agriculture (Thompson, 2002).

stay on the job; don't want to work outdoors; etc.”

Some participants used the open-ended responses to provide clarification around items they found confusing or unrepresentative in the survey, while still providing useful perspectives on labor. For example, one participant critiqued the survey in this way by stating:

This section begs for clarification. First, my sole job is the farm, but my husband does bring in an off-farm income. The farm is not his job, but he helps me out when he can. Second, this was not a typical year for us, and we did not hire any teenagers thru our county youth job skills/employment program. We don't pay those kids, the county does. Third, the kids that I did say helped on farm in 2012 are my neighbors kids. They were not paid, but the survey does not differentiate that in the children section. So, if volunteers/neighbors don't count, don't include my answers. I think the biggest problem I had with my intern is that he did not like doing the weeding and mundane work that is associated with a garden plot. He was interested in the animal husbandry side of it but with 100% grass fed beef, there is usually only limited time that the animals are interacted with. That would be in the evening when they get moved from paddock to paddock. It was hard to get him to realize the importance of what he was doing even though it was routine and boring.

This farmer identifies some of the same themes identified above, including the availability of reliable and qualified workers.

Payroll Ranges and Benefits to Workers

Two open-ended questions asked respondents to

Figure 2. Farmers' Reported Percentage of Workers in Their First Year Working on the Farm (2012)

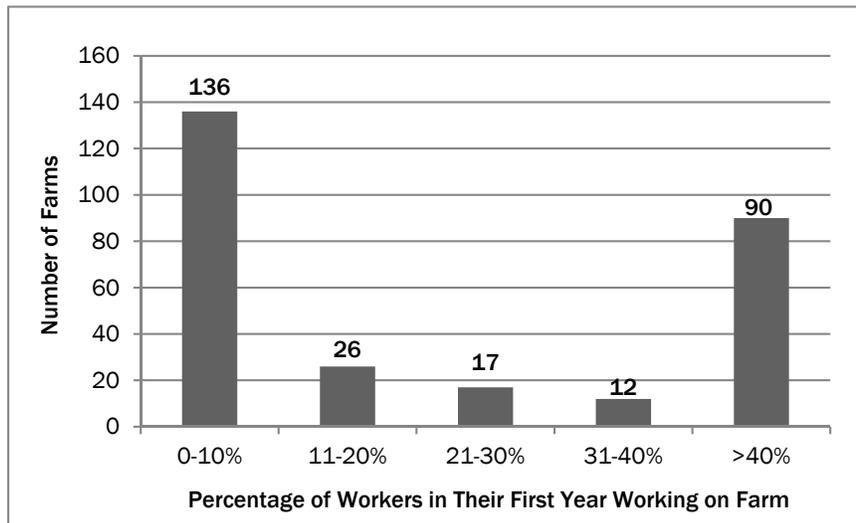


Figure 3. Challenges in Retaining a Stable Workforce



report the amount paid per hour to their lowest and highest paid hourly worker. Some 124 respondents filled out the question asking about the lowest paid hourly worker, and 118 answered regarding their highest paid hourly worker. Several respondents declined to answer this item and instead wrote things such as, “my husband works for love” and “it’s us, and we don’t know exactly.” These answers were not included in the analysis for this item because they could not be quantified for

Table 3. Mean, Median, and Mode of Lowest- and Highest-Paid Workers, Hourly Rate; N=124 for Lowest Paid; N=118 for Highest Paid (All in US\$)

	Mean	Median	Mode	Standard Deviation
Lowest-Paid Hourly Worker Rate	8.92	9.00	10.00	2.84
Highest-Paid Hourly Worker Rate	11.93	11.00	10.00	4.62

Table 4. Reported Hourly Range, Minimum, and Living Wage by State (All in US\$)

State	Reported Hourly Range with '0' responses removed (across all respondents per state, US\$)	Minimum Wage* (US\$/hour)	Living Wage (1 adult)† (US\$/hour)
Connecticut	8.00–15.00	9.15	10.68
Maine	7.25–28.00	7.50	8.94
Massachusetts	5.00–20.00	9.00	11.31
New Hampshire	7.00–16.00	7.25‡	9.68
New Jersey	5.00–10.75	8.38	11.13
New York	3.50–25.00	8.75	11.50
Rhode Island	8.00–22.00	9.00	9.93
Vermont	6.50–16.00	9.15	9.13

* Source: National Conference of State Legislatures, n.d.

† Source: Glasmeyer, n.d.

‡ Federal minimum wage.

an hourly pay range. Table 3 provides the mean, median, and mode for the lowest and highest paid hourly worker. The ranges for these values were from US\$0 to US\$20 per hour for the lowest paid hourly worker, and US\$0 to US\$28 per hour for the highest paid. A standard deviation of US\$2.84 for the lowest paid worker and US\$4.62 for the highest paid indicates more variability for those earning the highest wage. Table 4 provides information about the minimum wage and living wage for each of the states in the network as a point of reference.

Benefits-eligible workers are defined by the federal government as employees who have “worked for a covered employer for at least 12 months, have 1,250 hours of service in the previous 12 months, and if at least 50 employees are employed by the employer within 75 miles” (U.S. Department of Labor, 2013, para. 1). Some 232 respondents reported the number of benefits-eligible workers they had during the year 2012; of these, 160 farmers reported having zero benefits-eligible workers and 72 reported having 1 or more benefits-eligible workers. The survey itself did not provide the definition above, so participants were

left to determine the definition of “benefits-eligible” on their own. While the maximum number of benefits eligible workers reported was 150, most farmers reporting having few if any benefits-eligible workers, with the mean being 1.89.

The 72 respondents who reported having 1 or more benefits-eligible workers were asked to identify which benefits they provided to these eligible workers. Table 5 lists the number of responses for each of the benefit types.

The most prevalent benefit provided to benefits-eligible workers by respondent farms is workers compensation insurance, while the least prevalent are maternity/paternity leave, retirement benefits, and time-and-a-half wages for overtime.

Of the 210 participants who responded to the question, “Do you provide housing for your employees?” only 63 (30%) indicated that they do. Of those, 54% provide housing separate from their homes, 27% provide in-home housing, 8% provide housing in a tent or yurt, and 11% provide “other” housing, with the most popular among those being a mobile home. The number of employees to which responding farmers provide housing varied from 1 or 2 to “all employees.” Of the 63 respond-

ents who provide housing to employees, only 7 (11%) responded “yes” to the question, “Is this housing inspected by local, state or federal authorities?”

Wages, Benefits, and Retention

We examined the relationship between the workers’ pay and retention by converting data about length of time on the farm into a categorical variable, with farms categorized as Low Retention (more than 31% of workers in their first year on the farm), Medium Retention (11% to 30% of workers in their first year on the farm), and High Retention (less than 10% of workers in their first year on the farm). Pay rates remained as a continuous numerical variable. We ran a one-way ANOVA to test “the null hypothesis that the sample data were drawn from two or more different groups with the same mean value on a variable of interest” (Welles, 2013, p. 11). In this case, the null hypothesis was that no difference exists between the level of worker retention and the amount of pay. The results illustrate whether the variance within each group is statistically different than the variances between the groups. Finally, statistically significant relationships require a *P*-value of .05 or below. To examine the relationship between retention and the benefits offered to workers, the same categories of High, Medium, and Low Retention farms were used, and benefits were compared using discrete numerical data indicating the number of benefits offered per farm. Table 6 provides information about the comparison variables and *P*-values of those comparisons.

While the relationship between the lowest paid workers and retention was not statistically significant, the relationship between the highest paid workers and retention was ($P=0.03$), as was the relationship between worker benefits and retention ($P=.000$). Table 7 illustrates these relationships further through multiple comparisons between the retention rate and pay, as well as between retention and the number of benefits.

The statistically significant relationship here

Table 5. Number and Percentage of Farmers Indicating Benefits by Type Given to Benefits-Eligible Workers, 2012 (N=72)

Benefit Type	# of Farms Providing Benefit	% Respondents Providing Benefit (rounded)
Workers compensation	72	100%
End-of-season bonus	47	65%
Unemployment insurance	43	60%
Housing discount	31	43%
Paid vacation days	31	43%
Disability insurance	27	39%
Health insurance	25	35%
Paid sick days	22	31%
Time-and-a-half wages for overtime	14	19%
Retirement benefits	10	14%
Maternity/paternity leave	3	4%

Table 6. Comparison Variables and P-values for ANOVA Tests

Comparison Variables	P-value
Lowest Wage Workers and Retention	.419
Highest Wage Workers and Retention	.030
Worker Benefits and Retention	.000

indicates that medium-retention farms are paying an average of US\$2.65 per hour more than high-retention farms. This suggests that factors other than pay also influence workers’ decisions to stay with a farm. Several significant relationships were found, with medium-retention farms offering on average 1.79 more benefits than high-retention farms and 1.27 more benefits than low-retention farms. Again, this suggests that factors other than the number of benefits influence workers’ decision to stay on a farm.

Written Policies

Some 85 respondents indicated which written policies they had on their farm: 45 reported that they had written labor policies, 42 responded that they have an emergency plan, and 60 replied that they have a food safety plan. Of the 203 responses to the question, “Would you like help creating written policies?” 51% responded “No,” 40% responded “Yes,” and 9% indicated “Not Applicable” (because the farmer already has written policies). Table 8 provides information about the respondents to this question by state.

Table 7. Multiple Comparisons, Retention and Pay and Retention and Benefits

Retention on Farm	Mean Difference	P-value
Low Retention	US\$0.18/hour more than high retention	1.000
Medium Retention	US\$2.65/hour more than high retention	.036
Medium Retention	US\$2.47/hour more than low retention	.078
Low Retention	.52 less benefits than high retention	.152
Medium Retention	1.79 more benefits than high retention	.000
Medium Retention	1.27 more benefits than low retention	.002

Table 8. State-by-State Responses to “Would You Like Help Creating Written Policies?”

State	Yes	No	N/A	Did Not Respond to Item
Connecticut	4	4	0	8
Massachusetts	8	9	0	15
Maine	12	26	2	28
New Hampshire	14	17	3	36
New Jersey	1	4	1	1
New York	31	29	9	49
Pennsylvania	5	5	0	8
Rhode Island	2	2	1	2
Vermont	3	8	3	7
Total	80	104	19	154

Discussion

In what follows, we review survey findings and their implications for the research questions, compare our data with publicly available national agricultural data, review the supports and constraints expressed by organic farmers, and finally discuss the opportunities for practice changes for both NOFA and other organizations interested in creating a context for labor justice. It is important to recall that conclusions drawn in this study represent the experiences and perspective of its participants and not all NOFA farmer-members nor all organic farms in the Northeast, although some of these might experience similar conditions.

The survey revealed who labors on these organic farms, pay and benefits for workers, retention, and farmers’ labor-related policies. Among organic farmers in the Northeast responding to the survey, the predominant model is a small-scale farm relying heavily on family and volunteer workers, distributing mainly to a local market through farmers’ markets, farm stands, and/or community supported agriculture operations

(CSAs). As shown in Figure 1 (above), the largest number of responding farms use the labor of family members, followed by paid employees, volunteers interns, neighbors, and customers and/or CSA members. Many times these worker types were not mutually exclusive, meaning that workers may fall under several categories (such as family member and volunteer). Unpaid laborers make up more than twice the number of paid laborers on these farms (Table 2).

While some farmers choose to involve customers and volunteers in their operations to encourage community education about organic agriculture (Berkey, 2014), it appears that farmers also are using creative approaches to fulfill labor needs for which they lack the financial resources to hire employees.

When it comes to workers’ remuneration, amount of pay and the number and types of benefits varied greatly across farms. The median hourly rate reported for the lowest wage earners was roughly equivalent to most states’ minimum wage, and that for the highest wage earners equivalent to or slightly above most states’ living wage (Tables 3 and 4). However, the range of pay rates varied widely, with the lowest end of the pay range falling below the minimum wage in all 7 states (Table 4). Many responding farmers (69%) reported having no benefits-eligible workers. Of those who offered benefits (31%), all reported providing workers compensation, as federally mandated. However, the majority did not provide paid vacation, disability insurance, health insurance, paid sick days, time-

and-a-half wages for overtime, nor retirement benefits (Table 5). Yet 65% of responding farmers with benefit-eligible workers reported providing an end-of-season bonus. This suggests that farmers are willing to provide benefits but may be unable to afford doing so on a consistent basis. Finally, less than a third of responding farmers reported offering housing for workers. Of those who did, only 11% reported that housing was inspected by local, state, or federal authorities. Thus the quality of housing provided to workers may vary widely across those farms who do provide it. The ability to provide adequate housing was identified as a key challenge to retaining a stable workforce in our analysis of open-ended responses (along with financial constraints, seasonality of the work, problems with paperwork, and the availability of qualified workers). Although limited data exist to document the current status of farmworker health and safety in the Northeast, the data available indicate problems for farmworkers and their families' health and safety, particularly in the areas of housing, adequate insurance coverage, and protection and training (Arcury et al., 2009). Our data suggest that these concerns also apply to organic farms in the Northeast.

The relationship between pay, benefits, and worker retention (Tables 6 to 10) are somewhat surprising. As described earlier, we used the number of employees in their first year working on the farm to create categories of High ($\leq 10\%$ workers in first year), Medium (11–30% workers in first year), and Low Retention ($\geq 31\%$ workers in first year) farms. Workers on Medium-Retention farms were paid US\$2.65 per hour more than workers on High-Retention farms, and workers on Medium-Retention farms had more benefits than workers on both Low- (1.79 more) and High-Retention (1.27 more) farms. While one might expect High-Retention farms to have higher pay rates and more benefits, given the reliance upon family members and volunteers for consistent work from year to year, farms with the least number of workers in their first year on the farm (i.e., High Retention) may be staffed by family and volunteers, which would reduce the amount of pay and number of benefits for workers on these farms.

Furthermore, factors beyond pay and benefits

can influence worker retention. For example, Jansen (2000) found that quality of labor in organic agriculture in Europe is dependent on four key factors: (1) the content of work (possibilities of defining tasks, acquiring knowledge); (2) labor relations (such as gender differences); (3) working conditions (health and safety, intensity of workload); and (4) the terms of employment (pay, insurance, benefits, etc.). In our broader study (Berkey, 2014), we also found these factors to be important. In addition, quality and retention of labor appeared to be influenced by the consistency of work opportunities and the importance of values as motivation to work on organic farms. In organic farming in the Northeast, the seasonal nature of growing and harvesting left many workers without viable employment during the off-season, making full-time, year-round farm work an impossibility. This sometimes led workers to seek alternative employment elsewhere either permanently or in the off season. In addition, while laborers faced many challenges, they often persevered due to their commitment to organic farming and practices (Berkey, 2014).

Our study found some key similarities and differences between the worker demographics of small-scale organic farms in the Northeast and the broader landscape of U.S. agriculture. The National Agricultural Workers Survey (NAWS) (Carroll, Samardick, Bernard, Gabbard, & Hernandez, 2005), which describes the demographic and employment characteristics of hired crop farmworkers, found that 75% of all workers were born in Mexico, and 53 percent of the respondents were not legally authorized to work in the United States. This differs dramatically from our findings, which indicated that very few workers on these small-scale organic farms in the Northeast are from outside the United States. In addition, NAWS found that farmworkers average 33 years of age and are predominantly male. While we did not ask questions specifically about gender and the age of workers in the survey, qualitative data collected in our broader study (Berkey, 2014) indicated concern about an aging population of farmers and workers in organic farming in the Northeast. A majority of the NAWS participants had only one farm employer over the previous twelve months, and many also

reported that their current job was seasonal. This is consistent with our findings about organic farms in the Northeast and suggests that during a portion of the year workers are either unemployed or in off-farm employment. In the NAWS survey, few participants cited health insurance as a benefit provided by the farm employer. The same trends around pay and benefits from the NAWS survey emerged in our findings: the low provision of health benefits and substandard pay for both workers and farmers themselves.

The 2012 U.S. Census of Agriculture found that 88% of all farms nationally fall under the USDA small farm definition, because they sell less than US\$250,000 in agricultural products annually (USDA NASS, 2014). Most farms participating in our study fell under this definition as well. In addition, most of the farms participating in our study reported selling locally at a high rate, and many identified the local market and consumers as one reason they are able to make ends meet. Some mentioned that this is because selling locally aligns with their values, while others indicated the desire to sell to a broader market but lacked a larger infrastructure within which they could distribute their products (Berkey, 2014).

Throughout the course of this study, it became clear that the justice of farmers and workers is inextricably linked on many of the farms that participated in the survey. Therefore, focusing on farmworker justice necessarily requires more broadly understanding the issues that affect not only workers but also the farmers themselves. We began to sum this up in our discussions with NOFA members and others as, “How are these farmers supposed to be thinking about justice for workers when they themselves are barely getting by and/or making a living?” This very question influenced our thinking about how justice is framed, and how the farmers’ own livelihoods in turn affect those of their workers. While it is well known that the conventional agricultural system is exploitative of labor, the environment, and consumer health (Gray, 2014; Holmes, 2013; James & Griswold, 2007; Rothenberg, 1998; Thompson & Wiggins, 2002), it is interesting to note that the farmers within the NOFA network have the privilege to choose other occupations and yet opt to endure

tough working conditions because of a belief and value that this is needed to change the larger system (Berkey, 2014).

Given these characteristics, what supports or constrains organic farmer and farmworker success? Most of the supports that farmers indicated in the survey and qualitative interviews conducted in the broader study (Berkey, 2014) centered on the community of the farm itself, the family and/or members supporting it, the alignment with local consumers who recognized the value of organic agriculture, the network support offered from NOFA chapters, and ongoing educational opportunities about practices that help the business aspect of the farm, such as grant-writing workshops and information on how to obtain other financial supports. The constraints or challenges to creating just labor conditions revolved around navigating the governmental bureaucracy surrounding organic agriculture and farming practices; the sheer cost of operating while lacking a venue for getting a premium price for goods on the market; time; the wherewithal to navigate alternative sources of funding; and finally an inability to retain and sustain a vibrant, educated, and passionate workforce over time (Berkey, 2014).

Many of these constraints are logistical or operational in nature. This indicates that creating just conditions for workers is less about a lack of understanding or commitment to justice on a farmer’s part, but rather external factors, such as the inability to access markets and regulatory requirements more suitable to large-scale operations, over which farmers have little if any control. It can be difficult for farms to retain experienced workers from one year to the next because are small-scale and may not be as economically viable as they would like to be, and the work they offer is seasonal. Also, while salary and benefits are important, an increase itself in these in does not equate to a more just or equitable working environment. Other factors such as a sense of community, a value placed on working the land, and other contextual factors are also important (Berkey, 2014).

Some of these constraints stem from the failure of U.S. agricultural policy to provide a system supportive of small-scale, value-driven agriculture. As organic agriculture has evolved in recent

decades, policy that supports it in many ways has lagged. The farm bill, passed under the official name of the Farm Security and Rural Investment Act of 2002, expired in 2007 when Congress passed an extension to 2012. Congress continued debating and refining a new farm bill while retaining a focus on revitalizing rural areas as well as new goals: “building on momentum of the ag industry and rising farm income; contributing to rural communities and infrastructure; supporting the bioeconomy; protecting nutrition assistance; developing a farm safety net; enhancing conservation and clean energy; promoting markets at home and abroad; and promoting research” (Thomas, 2013, para. 5). While nuanced, the interaction of the farm bill with trade policy as well as the subsidizing of certain crops does not bode well for organic agricultural techniques; since the 2002 legislation was passed it has not resulted in positive labor changes, as the number of rural agricultural jobs continues to drop (James & Griswold, 2007).

In early 2014, the new farm bill was signed into law. As expected there were some wins for sustainable and organic agriculture. These include investments in beginning farmers, giving them access to land, credit, and training; more funding for research in organic agriculture; provisions making it easier to spend food stamps at local farmers markets; policy ensuring that farmers who receive crop insurance subsidies use natural resources wisely on their farms; and access for farmers with diverse crops and livestock to get insurance tailored to their needs. Also as anticipated, there were some losses as well, some of which are connected to larger losses of public assistance funding, and others specifically affecting farmers of color, rural small business entrepreneurs, the environment (funding for smart resource conservation was cut dramatically), and small- and midsize farmers (there were no subsidy reforms, which means that they remain uncapped and unlimited, ultimately benefiting large, wealthy farms) (National Sustainable Agriculture Coalition, 2014).

In addition to the farm bill’s impacts, many larger policies impact labor in U.S. agriculture. One notable policy is the Fair Labor Standards Act of 1938, which excludes agricultural workers and other classes of workers from the protections

afforded by the bill. While there have been subsequent amendments to address this (such as the 1966 amendment that required farmers to pay their workers the base minimum wage standard, and the 1983 Migrant and Seasonal Agricultural Workers Protection Act that provides migrant and seasonal farmworkers with increased protections), farmworkers still lack the right guaranteed by the Constitution to organize and advocate for fair and equitable labor practices in their field of work (Anderson, 1989). A tension exists as well between increased standards of protection and wages for farmworkers and the ability of small-scale farmers to meet new thresholds. These are among the challenges to realizing more just working conditions for farmers and workers alike.

This study has implications for future practice within NOFA and other organizations concerned about justice for organic farmers and laborers. NOFA should consider what it can do to ensure training and ongoing employment opportunities for workers. Because of the challenges in recruiting and retaining quality workers, NOFA and other organizations with similar concerns have an opportunity to build organizational infrastructure that connects the right workers with the right farms by identifying not only their skill sets, but also their values. Rather than each farm training its workers independently, NOFA could help develop programs in which farms cooperate to train workers, with farmers contributing knowledge and skills based on their farms’ specific assets and needs, developing a more qualified workforce that is adaptable to changes in crop and product yield from year to year due to fluctuations in climate. In addition, NOFA should consider how it can help ensure ongoing employment opportunities for workers when full-year employment cannot be achieved. It might be possible to build alliances with other employers that could use the skills of agricultural workers during their off season. Because access to health and retirement benefits is a consistent challenge across the network, NOFA can play a role in creating a collective, lower-cost way for farmers and laborers to access benefits. Similarly, NOFA can help reduce the time burden on farmers to do paperwork by providing examples or templates for on-farm written labor and other

policies (e.g., emergency plan, food safety plan) for the 40% of respondents who indicated they would like assistance in this regard. Farmers can then adapt these to their specific operational context.

With respect to policy advocacy, it is important for NOFA and organizations focused on justice for laborers within organic agriculture to not only advocate for supportive policies, but also to educate farmers about current issues in policy discussions and to take into consideration farmers' perspectives about how policy changes will affect their operations. For example, a change in labor policy that lowers the revenue threshold at which employers are mandated to provide workers with Unemployment Insurance would improve work conditions for benefits-eligible employees on organic farms, but could degrade the work conditions of farmers who are already financially strapped and struggling to make ends meet. Thus the development of policy agendas by NOFA and similar networks needs to occur in dialogue with farmers and workers to identify creative ways to overcome such tensions. Related to this ongoing dialogue, NOFA should work to educate its members on the positive wins for organic agriculture from the 2014 farm bill and any future legislation affecting organic farmers so that farmers can take advantage of new programs and incentives. Alternately, NOFA should continue to educate its members about the areas where organic farmers lose out due to this bill and other policies so that they can form a more coherent message for future rounds of legislation.

Conclusion

Most farms in the NOFA network are small-scale farms using organic practices, a population about whose labor practices little specific research has been done. Our findings from a survey of NOFA farmer-members indicate that these farms rely heavily on labor from their families and communities in order to operate. The biggest challenges faced by farmers are financial and having the time and infrastructure necessary to navigate policy and develop markets within which their goods can earn a premium. Additional hurdles include the lack of skilled, trained workers and the means to keep them on board due to both the seasonality of the

work and the challenges mentioned previously. Participating farmers report that the challenges facing their workers include the lack of year-round employment, issues with transportation and housing, and the lack of benefits and pay.

These findings highlight the tension between farmers' rationale for small, organic farming and the economic reality within which this scale of agriculture exists. Farmers can name the conditions within which they place their workers and themselves in relation to hours and the nature of work, payment, and benefits, and are transparent about the challenges they face. However, recognizing unjust labor conditions in and of itself does not change the larger system to make farming at this scale more sustainable for business and as an employment option. To further unpack the dynamics of this wicked and complex system, follow-up studies are needed to understand better the reality of this work for the family members, paid laborers, volunteers, community members, and apprentices on these farms in order to inform practical and policy solutions.

In addition, more needs to be known about labor on organic farms in the Northeast and other regions of the United States, as well as globally, given the dearth of publicly available information. While this study is by no means a comprehensive examination of all organic farms in the Northeast, it provides insights into the labor force and related justice issues faced by small-scale organic farmers and farmworkers. Further researching the experiences of these farmers and laborers is essential for informing future policy and practice, not only within NOFA, but also across the Northeast and nationwide. In addition, expanding the geographic scale in a future study in order to include small-scale organic farming across the U.S. would be helpful to compare across regions what is working well to advance justice for organic farmers and their laborers. Doing so could expand and strengthen the network through which organic farmers can connect with and learn from one another toward the development of not only more environmentally sustainable farms, but also economically sustainable businesses that are able to fulfill their values for justice for their owners and employees.



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Appendix A. Examples of Recruitment Materials



Organic Farmer Survey

Dear Organic Farmers of the Northeast,
Please help NOFA and MOFGA improve our policy work on behalf of organic farmers and the workers on their farms by filling out this survey! This survey is for all organic farms - certified organic, farmers' pledge, self-declared organic, rural or urban - regardless of size or crops. It will take 20-30 minutes to fill out the questions on your farm's labor practices and markets. The 2012 Census of Agriculture does not cover all of this information! The results will help guide the policy and technical assistance work of NOFA and MOFGA.

Survey results will be confidential, and only shared in summary form. The survey forms an important part of Becca Berkey's dissertation at Antioch University New England and a joint project with the NOFA Interstate Council Domestic Fair Trade Committee.

If you have questions, contact Becca Berkey, Lead Researcher at rberkey@antioch.edu or 407-506-9204 or Elizabeth Henderson of the NOFA Interstate Council Domestic Fair Trade Committee at elizabethhenderson13@gmail.com

You will find the survey at:
<http://tinyurl.com/NOFAsurvey>

We appreciate the time you take to help us in this important work. Please complete the survey no later than February 17, 2013.



Flier distributed to organic farmers at NOFA statewide annual meetings January-March, 2013.

Take a Few Minutes to Complete the MOFGA/NOFA Farm Questionnaire

MOFGA and the Northeast Organic Farming Association invite organic farmers to complete a survey that will help support farms and farm workers in the Northeast. This survey is meant for all organic farms - certified organic, farmers pledge, or self-declared organic, rural or urban - regardless of size or crops. No one has ever collected this information before! The results will help guide the policy and technical assistance work of NOFA and MOFGA. Please fill out the survey at: <http://tinyurl.com/NOFAsurvey>.

MOFGA's (Maine) appeal to farmers.

NOFA/MOFGA Farmer Survey

nofanh header border

New Hampshire Farmers!

Please take 20-30 minutes of your time for this survey on your farm's labor practices and markets.

<http://www.surveymoz.com/s3/1110707/Farmer-Survey-NOFA-amp-Antioch-Study>

This survey is meant for all organic farms - certified organic, farmers pledge, or self-declared organic, rural or urban - regardless of size or crops.

The survey results will be confidential, and only shared in summary form. The survey is an important part of the research for Becca Berkey's dissertation at Antioch College and is a joint project with the NOFA Interstate Council Policy Committee and MOFGA.

No one has ever collected this information before! The results will help guide the policy and technical assistance work of NOFA and MOFGA.

Thank you,

NOFA-NH Board of Directors

Surprise!
Winter
Conference Early
Bird Registration
Discount
Extended to
February 8th

Register Now

Quick Links
Contact
[Become a Member](#)

NOFA-New Hampshire's appeal to farmers.

Business Tools

Northeast Organic Farmer Survey

Attention ORGANIC farmers!

This January & February, all NOFA chapters and MOFGA are circulating this survey to farmer members [here](#). Please take 20-30 minutes of your precious wintertime for this survey on your farm's labor practices and markets. The purpose of this study is to find out how pay, housing, health and the prices farmers receive affect farmers and farm workers. This survey is meant for all organic farms – certified organic, farmers' pledge, or self-declared organic, rural or urban – regardless of size or crops. Results will be confidential and shared only in summary form. The survey forms an important part of the research for Becca Berkey's dissertation at Antioch College and is a joint project with the NOFA Interstate Council Policy Committee. No one has ever collected this information before! Results will guide policy and technical assistance work of NOFA and MOFGA. For more information, email [Elizabeth Henderson](#).

NOFA-Rhode Island's appeal to farmers.

Northeast Organic Farmer Survey

Attention ORGANIC farmers! All NOFA chapters and MOFGA are circulating a survey to farmer members. Please plan to take 20-30 minutes of your precious winter time to [take this survey](#) on your farm's labor practices and markets.

The purpose of this study is to find out how things like pay, housing, health, and the prices farmers receive affect farmers and farmworkers. This survey is meant for all organic farms - certified organic, farmers' pledge, or self-declared organic, rural or urban - regardless of size or crops.

The survey results will be confidential, and only shared in summary form. The survey forms an important part of the research for Becca Berkey's dissertation at Antioch College and is a joint project with the NOFA Interstate Council Policy Committee. No one has ever collected this information before! The results will help guide the policy and technical assistance work of NOFA and MOFGA.

[Click here to take the survey](#), and thank you for your time!

NOFA-Vermont's appeal to farmers.

Appendix B. Farmer Survey

The survey may also be viewed in its online format at <http://www.surveygizmo.com/s3/1110707/Farmer-Survey-NOFA-amp-Antioch-Study>

Introduction

Member Farmer Survey

Research conducted by the Northeast Organic Farming Association and Becca Berkey, PhD Candidate at Antioch University New England

This survey is being distributed to the farmer-members of the Northeast Organic Farming Association (NOFA), covering 7 states in the northeast with the addition of the Maine Organic Farmers and Gardeners Association (MOFGA). The original idea and identification of need for the survey generated in the Labor and Trade Working Group of the Northeast Sustainable Agriculture Working Group (NESAWG), of which NOFA is a member. We are doing a study about issues that affect farmers and farmworkers on organic farms in the Northeast. You are invited to be a part of this study by participating in this survey, because your farm is a member in the Northeast Organic Farming Association (NOFA).

The purpose of this study is to find out how things like pay, housing, and health affect farmers and farmworkers. Our focus is on organic farms in the northeast. We are asking farmers and farmworkers to tell us about their experiences. We want to know more about:

- Issues that farmworkers and farmers care about;
- How these compare to conventional agriculture;
- How NOFA can better support farmers and farmworkers.

From this study, NOFA hopes to learn how to help improve the lives of farmers and farmworkers. Also, Becca Berkey is doing this study as part of a degree program at Antioch University New England.

Please complete this questionnaire online at your earliest convenience. Should you prefer to complete it via paper, please contact the researcher, Becca Berkey, at rberkey@antioch.edu, and she will provide you with a hard copy and a postage-paid envelope in which to return it.

Your participation in this survey is voluntary, but we sincerely hope you will take 20-30 minutes to answer our questions. You can opt out of the survey at any time, and will be asked to provide your contact information at the end only if you feel comfortable doing so. If you complete the survey, it means that you would like to be a volunteer in this research study. If you decline, it will not affect your relationship with NOFA or Antioch University New England. The information you provide will remain strictly confidential and will never be associated with your name or shared with any government or private agencies. Only Becca Berkey will have access to the complete survey data. Elizabeth Henderson and Louis Battalen of NOFA will have access to survey data without your name or the farm you represent. We will not identify you in reports or talks about this study. If you ask us, we will let you comment on reports from this study before they are published.

Please ask any questions you have now or in the future. The lead researcher is Becca Berkey of Antioch University New England. You may call her at 407-506-9204 or e-mail her at rberkey@antioch.edu. If you have any questions about your rights as a research participant, you may contact Dr. Katherine Clarke, kclarke@antioch.edu, Chair of the Antioch University New England Institutional Review Board, or Dr. Stephen Neun, sneun@antioch.edu, Vice President of Academic Affairs at Antioch University New England.

Thank you again for taking the time to respond!

Section 1, Information about Workers

In which state is your farm located?

- a. Connecticut
- b. Maine
- c. Massachusetts
- d. New Hampshire
- e. New Jersey
- f. New York
- g. Rhode Island
- h. Vermont

Who works on your farm? Please check all that apply.

- Family members
- Interns
- Neighbors
- Customers/CSA members
- Volunteers
- Paid employees
- Migrant workers
- H-2A workers
- Other

Please describe:

Paid Workers: Please tell us how many people worked on your farm and got PAID for each category in the 2012 calendar year. 'Year Round' is anyone who is a 12-month employee of your farm and 'Seasonal' applies to anyone working less than that. If no one in that category worked on your farm in 2012, please enter 0. Use the 'Tab' button on your keyboard to move from one field to the next.

Category	Year Round	Seasonal
# Full-Time		
# Part-Time		
# of Family Members		
# of Interns/Apprentices		
# of Neighbors		
# of Customers/CSA Members		
# of Migrant Workers		
# of H-2A Workers		
Other (please describe)		

Unpaid Workers: Please tell us how many people worked on your farm and were NOT PAID for each category in the 2012 calendar year. 'Year Round' is anyone who is a 12-month employee of your farm and 'Seasonal' applies to anyone working less than that. If no one in that category worked on your farm in 2012, please enter 0. Use the 'Tab' button on your keyboard to move from one field to the next.

Category	Year Round	Seasonal
# of Family Members		
# of Interns/Apprentices		
# of Neighbors		
# of Customers/CSA Members		
# of Volunteers		
# of Migrant Workers		
# of H-2A Workers		
Other (please describe)		

What percentage of your workers in 2012 were in their first year working on your farm?

- 0-10%
- 11-20%
- 21-30%
- 31-40%
- >40%

What are some of the labor challenges you face in retaining a stable work force, if any?

Section 1A: Your Priorities in Farming

[This section deleted because we are not discussing the results in this paper.]

Section 1B: Experiences and Practices in Selling Farm Products

Please describe your relationships and experiences with your buyers. In this section we would like to know about constraints you face regarding your ability to make a fair living by farming/ranching and the beneficial practices you engage in with buyers.

Of the total 2012 gross sales of all organic products from your operation (including value-added or processed products) approximately what percentage was marketed through the follow types of sales? **(please fill in approximate %, noting that the cumulative total from all three areas should equal 100%)**

Products Sold Through:	% of Total 2012 Gross Organic Sales
Consumer Direct Sales	
a. On-site (e.g., farm stand, u-pick)	%
b. Farmer's market	%
c. Community Supported Agriculture (CSA) shares	%
d. Mail order or internet	%
e. Other consumer direct (please specify) _____	%
Direct-to-Retail	
f. Natural food stores (cooperatives and supermarkets)	%
g. Conventional supermarkets	%
h. Restaurants or caterers	%
i. Other direct to retail (please specify) _____	%
Wholesale Markets	
j. Natural food store chain buyer	%
k. Conventional supermarket chain buyer	%
l. Processor, mill, or packer	%
m. Distributor, wholesaler, broker, or repacker	%
n. Grower cooperative	%
o. Other wholesale (please specify) _____	%

Section 2, Information about Wages and Benefits

How many benefits-eligible workers (regular and long-time temporary full and part time workers) did you employ in 2012?

Which of the following monetary benefits did you provide these workers? Check all that apply.

- Unemployment insurance
- Workers compensation insurance
- Disability insurance
- Health insurance

- Retirement benefits
- Paid sick days
- End of season bonus
- Housing discount
- Maternity/paternity leave
- Time and a half for overtime—please indicate the # of hours worked in a week after which the worker receives overtime pay:
- Paid vacation days—please indicate the number of days annually per worker:
- Other (please describe)

If you provide bonuses to workers, how do you decide how much to pay and who receives one?

What rate do you pay your lowest-earning hourly worker?

What rate do you pay your highest-earning hourly worker?

Please check the appropriate columns based on your labor practices.

Labor Practice	Yes	No
Do you have written contracts with your employees?		
Do you provide pay stubs each time you pay?		
Do you display legally required postings at your farm?		
Do you have a seniority policy?		
Does seniority play a role in lay offs or rehiring?		
If you lay workers off at the end of a season, do you hire them back the next year?		

- b. Do you provide housing?
 - Yes
 - No (if 'No', skip to question 26)
- c. For how many employees do you provide housing?
- d. Where do you provide housing?
 - In my home
 - In separate housing
 - In a tent/yurt
 - Other

Please describe:
- e. Is this housing inspected by local, state, or federal authorities?
 - Yes
 - No
- f. What training do you provide to employees? Please check all that apply.
 - Safety
 - Health
 - Food safety
 - Worker protection standard (WPS)
 - Legal rights
 - Other

Please describe:
- g. Which of the following do you have on your farm? Check all that apply.
 - Written labor policies
 - Emergency plan
 - Food safety plan

- h. Would you like help creating written policies?
- Yes
 - No
 - N/A, I already have written policies

Optional Information

What is the name of the farm about which you are responding?

Name of Person(s) Responding:

Making visible the people who feed us: Educating for critical food literacy through multicultural texts

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Diana Robinson^b

Food Chain Workers Alliance

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Abstract

The number of food systems education programs and curricula in the U.S. has increased in response to the growing interest in where food comes from and how it is grown. While these educational efforts aim to increase learners' connection to food and the land, they do not always focus explicitly on the structural inequities that shape food systems and the experiences of food workers. There is, however, a small but growing number of food

systems education programs that seek to shed light on and challenge these inequities. We build on these existing critical approaches to food systems education by introducing the notion of *critical food literacy*—or the ability to examine one's assumptions, grapple with multiple perspectives and values that underlie the food system, understand the larger sociopolitical contexts that shape the food system, and take action toward creating just, sustainable food systems. In particular, we discuss and highlight the potential of multicultural texts to make visible food workers, especially those who tend to be less visible, and identify pedagogical strategies for cultivating critical food literacy by drawing on empirical research on response to multicultural literature and using a multicultural text produced by the Food Chain Workers Alliance as an illustrative example. Ultimately, we argue that citizens who develop and demonstrate critical food literacy can participate in public, democratic discourse about food systems and help create food systems that are just and sustainable for all.

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Disclosure

Diana Robinson is the campaign and education coordinator of the Food Chain Workers Alliance (FCWA). In this paper, the authors use a comic book produced by FCWA as an illustrative example of how multicultural texts can potentially foster critical food literacy.

Keywords

critical food literacy; food systems education; food labor; pedagogy; values

Introduction

There is now increasing interest in healthy food and sustainable agriculture, as indicated by the demand for locally grown, organic food, and the rise of farmers markets and community supported agriculture (Gray, 2013). This has been driven, in part, by consumers' curiosity and concerns about where food comes from, how animals are treated, and the environmental impact of food production. In contrast to the burgeoning interest in small-scale or environmentally friendly alternatives, however, less attention has been paid to issues of labor in food systems (Gray, 2013). Food systems that are truly sustainable feature not only practices that reduce environmental impact but also working conditions and employment practices that protect the workers' human rights (Jayaraman, 2013). The question that rises is: How can the general public develop a critical awareness of the people who grow, process, distribute, sell, and serve food and of the sources of agency and oppression among these food workers?

Attention has begun to be paid in recent years to the people behind food.¹ Constituting one-sixth of the workforce in the U.S. (Food Chain Workers Alliance, 2012a), food workers contribute over US\$2.2 trillion in goods and services annually.² In 2009, the Food Chain Workers Alliance (FCWA) was formed as nine organizations, including unions and worker centers, came together to discuss the importance of organizing an alliance to represent their collective interest and work toward a fair and just food system for all. The FCWA, where author Robinson works as the campaign and education coordinator, currently is made up of 25 organizations that collectively represent close to 300,000 workers in the food system. It serves as a platform to uplift food worker campaigns and educate the general public about food worker issues.

Educational institutions can also play an important role in making visible the experiences of food workers, particularly those who tend to be less visible. We argue that the use of multicultural texts (texts that reflect diverse experiences of previously underrepresented or omitted groups) that humanize food workers and highlight their experiences can encourage learners of all ages to think critically and examine their assumptions about food systems and the people behind food. We further assert that the time is now ripe for using such texts (e.g., news articles, comics, books, films, talk shows, TED talks), particularly given their recent proliferation in the media.

To lend support to this argument, we begin by asserting that while existing food systems education programs, such as school gardens, farm-to-school programs, and student farms on university campuses, typically aim to increase students' connection to food and the land, they do not necessarily encourage students to explicitly consider the structural inequities that shape food systems and the experiences of food workers. Important exceptions exist, however, and the purpose of this commentary is to build on examples of critical approaches to food systems education by introducing the notion of *critical food literacy*. Drawing on previous literature on critical literacy, we define critical food literacy as the ability to examine one's assumptions and grapple with multiple perspectives that underlie food systems, understand the larger sociopolitical contexts that shape food systems, and take action toward just, sustainable food systems. We also draw on studies from literacy education on students' responses to multicultural texts with social justice themes and use a multicultural text produced by the FCWA to identify and illustrate pedagogical strategies that can help foster critical food literacy. We end the paper by calling for additional empirical research on critical food literacy and discussing its importance in efforts to build just, sustainable food systems.

¹ These people include those who work in food production, processing, distribution, retail, and service.

² We calculated this amount by using the 2012 U.S. Economic Census for total sales for NAICS codes 311, 722, and 445

(available at <http://factfinder.census.gov/>) and the 2012 USDA Census of Agriculture report (available at http://www.agcensus.usda.gov/Publications/2012/Full_Report/Volume_1,_Chapter_1_US/st99_1_001_001.pdf).

The Need for Critical Approaches to Food Systems Education

Interest in food systems education for youth and young adults has grown, as evidenced by the proliferation of school gardens (Williams & Dixon, 2013), farm-to-school programs (Feenstra & Ohmart, 2012), undergraduate majors and field-based learning opportunities that focus on food systems (Hilimire, Gillon, McLaughlin, Dowd-Urbe, & Monsen, 2014; Jordan et al., 2014), and student farms at university campuses (Parr & Trexler, 2011; Sayre & Clark, 2011). The growth of these types of food systems education programs can be explained, in part, by the rising interest in improving health, preventing obesity, teaching methods for growing and preparing healthy food, and eating locally grown, organic foods (Flowers & Swan, 2012; Guthman, 2008; Williams & Dixon, 2013). In addition, farm-to-school programs and sustainable food projects on university campuses are often justified in terms of connecting with local farmers and supporting local agriculture (Bagdonis, Hinrichs, & Schafft, 2009; Barlett, 2011).

Although these types of food systems education programs can differ in terms of their specific goals, they all typically embrace and emphasize the value of experiential learning (Blair, 2009; Hilimire et al., 2014; Parr & Trexler, 2011), or the notion that people learn and construct knowledge by making meaning out of their experiences (Dewey, 1938; Kolb, 2014). In the context of food systems education, experiential learning opportunities include direct exposure—whether through field trips or internships—to the processes of food production and to other locations in the food system. While experiential learning has become a popular pedagogical principle in food systems education programs, a learning-by-doing approach by itself does not necessarily guarantee the development of critical thinking about food systems, especially if it unquestioningly touts certain food practices as being sustainable.

Eating locally grown foods is an example of such a food practice commonly promoted by farm-to-school programs (Allen & Guthman, 2006) and school gardens, such as the well known Edible Schoolyard in Berkeley (Pudup, 2008). In fact, one of the principles of “edible education,” as

articulated by Alice Waters, the founder of the Edible Schoolyard, is that schools support farms, and local farms in particular (Gayeton, 2014). Furthermore, a 2008 report by the then Chez Panisse Foundation entitled *Principles of an Edible Education: A Vision for School Lunch* argued that schools should “only serve food that is seasonal, local, and delicious” (Chez Panisse Foundation, 2008, p. 14). What is problematic, however, is not so much the act of eating locally grown foods as the underlying assumption that locally grown foods are inherently ethical and sustainable, thereby overlooking structural injustices, including labor inequities, that can shape small-scale, local farms (Gray, 2013).

Not surprisingly, the value of eating locally grown foods is also emphasized on student farms on university campuses, as they are sites of local food production by the students. While students learn important practical skills for growing food and are often able to direct their own learning experiences, many students are also motivated by their desire to grow and access “good food” (Parr & Trexler, 2011). This suggests that students who work on student farms have prior ideas about what constitutes good (and bad) food; that is, that “good food” is seasonal and locally grown. When students focus primarily on gaining knowledge and skills that align with their values of growing and accessing good food, however, they may not seek exposure to different perspectives that conflict with their values. This is problematic because students may then miss the opportunity to consider how, as scholars have described (e.g., Freedman, 2011; Johnston & Baumann, 2010; Paddock, 2015), racial and class inequities limit access to good food or how policies and institutions created the “good” and “bad” food distinction in the first place. Without such an opportunity for critical reflection, students may develop the overgeneralized belief that eating locally grown foods automatically constitutes a “sustainable” behavior.

Such a belief, in turn, may translate to a zealous desire to teach the “right” ways to farm, cook, or eat healthy (Caldwell, 2014). In “spreading the gospel” of “good food” to others (Guthman, 2008) in a top-down manner, such teaching efforts can reinforce and perpetuate inequities and power

differences and ignore or discount the different kinds of knowledge and skills that those being educated possess. Moreover, by instilling the values of “good food,” these food systems education programs can reinforce notions of what kinds of food-related knowledge, skills, and behaviors are good or right (and therefore, which are bad or wrong), as well as who is considered knowledgeable versus ignorant (Coveney, Begley, & Gallegos, 2012; Flowers & Swan, 2011; Swan & Flowers, 2015). Such notions, in turn, can privilege particular types of knowledge, such as knowledge of food production, over other types, such as knowledge of consumption (Goodman & DuPuis, 2002) and shape what kind of knowledge is presented as undisputable, when in actuality that knowledge is messier and more contested than it is presented to be (Flowers & Swan, 2011). These kinds of pernicious consequences can therefore potentially follow from food systems education programs that promote particular foods as being “good.”

It is important to note, however, that there is now a growing number of alternative food systems education endeavors that aim to question and/or disrupt structural inequities that underlie food systems (Flowers & Swan, 2012; Meek & Tarlau, 2015). Examples include programs developed by the Landless Workers Movement in Brazil that encourage youth to remain in the countryside and integrate them into a collective struggle toward land reform and building just, sustainable food systems (Meek & Tarlau, 2015). Other examples of critical approaches include Growing Power, an urban farm and nonprofit center based in Milwaukee, Wisconsin, that trains underserved youth (Walter, 2012); an undergraduate course on soul food that examined how communities of color exercise agency while also experiencing racism (Burdick, 2014); and School Grown, a garden-based program in Toronto that employs high school students who face systemic barriers to employment (Wever, 2015). Critical approaches to food systems education therefore occur in many forms (whether job training, coursework, or social movements) and contexts (in or outside of educational institutions), with a variety of outcomes (whether growing and selling food, gaining access to land, and/or increasing understanding of

oppression in the food system). The purpose of our commentary, then, is to build on these existing critical approaches to food systems education by describing one such approach that explicitly focuses on the use of multicultural texts with the aim of fostering *critical food literacy*, a notion that we elaborate upon below.

What Is Critical Food Literacy?

Before elaborating upon the idea of critical food literacy, we discuss two related concepts: food literacy and critical literacy. Food literacy as a concept has gained popularity over the last decade (Sumner, 2013) and has often been used to justify the development of food systems education programs. While many definitions exist, it typically refers to the ability of individuals to understand the origins and production of food, apply nutritional knowledge to food choices, and to grow and prepare food (Cullen, Hatch, Martin, Higgins, & Sheppard, 2015; Goldstein, 2014; Vidgen & Gallegos, 2014). Food literacy defined in this way, however, shifts the responsibility of solving problems in the food system away from public policies toward individuals by focusing on increasing knowledge and skills (Kimura, 2011).

Some existing definitions of food literacy go beyond this consumer-oriented approach and include the ability to understand social, environmental, economic, political, and cultural aspects of the food system and make healthy decisions that help build a sustainable food system (Cullen et al., 2015; Goldstein, 2014; Sumner, 2013; Wever, 2015). Furthermore, in her framework for critical food pedagogy Wever (2015) also includes what she calls critical or emancipatory knowledge and skills, including the ability to engage in critical reflection, demonstrate “critical knowledge of the social and economic forces of a society that affect food” (p. 49), and “exercis[e] food-related behaviors that support a democratic, socially, economically, and ecologically just food system” (p. 49).

Educators and scholars have justified the importance of these more critical and socially and politically grounded conceptions of food literacy by emphasizing the need to disrupt the industrial food system and create alternative food systems that are more sustainable (e.g., Goldstein, 2014; Wever,

2015). However, in such conceptions of food literacy, the object of critical reflection—a process that involves unveiling hidden power structures and understanding multiple perspectives—is limited to the industrial food system and not extended to alternative food systems (Holloway, Kneafsey, Venn, Cox, Dowler, & Tuomainen, 2007). By depicting alternative food systems as inherently more sustainable, despite the limited evidence base of positive impacts (Forssell & Lankoski, 2015), the existing notions of food literacy reinforce the “conventional-alternative” dualism (Holloway et al., 2007) and reflect oversimplified views about which food systems (and therefore what types of food-related behaviors) are sustainable and unsustainable.

Toward promoting more nuanced conceptions of food systems and extending the process of critical reflection to all types of food systems—not just the industrial food system—we introduce the notion of *critical food literacy*, which is rooted in the idea of critical literacy. Theorized by scholars including Paulo Freire and Ira Shor, critical literacy has four dimensions, as described by Lewison, Flint, and Van Sluys (2002). These include the ability to (1) disrupt the commonplace (i.e., challenge one’s conceptions, beliefs, or internalizations of common stereotypes or ideologies); (2) interrogate multiple viewpoints; (3) focus on larger sociopolitical issues; and (4) use language to take action toward promoting social justice, exercising power, and questioning practices of privilege and injustice. Others have written about critical literacy as the ability to use words to challenge the status quo and read the world or transform social relations, material conditions, and the world more broadly (e.g., Freire, 1985; Lewis, Pyscher, & Stutelberg, 2014; Luke, 2012; Shor, 1999). Critical literacy therefore is rooted in critical theory, which is based on the premise of transforming social and material conditions through questioning power relations, critiquing society, and challenging social assumptions (Bredo & Feinberg, 1982; Geuss, 1981).

Drawing on these notions of critical literacy, we define critical food literacy as the ability to (1) examine one’s own values with respect to food systems; (2) grapple with multiple values and perspectives that underlie food systems; (3) under-

stand the larger sociopolitical contexts and factors that shape food systems; and (4) take action toward social justice in food systems and sustainability more broadly. While the concept of “critical food literacy” is relatively new, Winslow (2012) used it in her dissertation, arguing that fostering critical food literacy is one approach to teaching sustainability within her field of rhetoric and composition. Specifically, Winslow (2012) defined critical food literacy as the

ability to locate and critically analyze information and arguments about America’s varying relationships to food and food production, the political implications and environmental impact of industrialized farming, and the current re-emergence of the small farm and local food movements as pieces of the effort to restructure and/or transform industrialized food systems into more sustainable systems. (p. 4)

While Winslow’s definition and ours are both informed by the concept of critical literacy, our notion of critical food literacy is explicitly rooted in the importance of making visible the people who tend to be less visible; recognizing their experiences, knowledge, and skills; and considering and grappling with multiple perspectives and values that underlie food systems.

It is crucial to note that other scholars who have written about food systems education and sustainability education more broadly have similarly articulated the importance of encouraging students to examine their own assumptions and consider multiple or conflicting perspectives (e.g., Anderson, 2013; Burns, 2011; Galt, Parr, Van Soelen Kim, Beckett, Lickter, & Ballard, 2013; Julier & Gillespie, 2012; Wals & Dillon, 2013). Furthermore, Wals and Dillon (2013) claimed that achieving a sustainable society requires people to demonstrate pluralism of thought and divergent thinking and “engage in a process of self-reflection on the relationship between their own guiding assumptions...and those of others” (p. 256). Such self-reflection, in turn, can encourage those who wish to inculcate “good” food practices to “listen, watch, and sometimes even stay away instead”

(Guthman, 2008, p. 444) from the communities they are putatively teaching.

Despite this recognition of the importance of educating students to grapple with diverse perspectives, values, and beliefs that underlie food systems, however, there is currently little research on the types of learning experiences, pedagogical strategies, and the roles of educators that contribute to the development of critical food literacy. Toward the end of addressing this gap in the literature, we illustrate the potential of multicultural texts about or by food workers in cultivating critical food literacy.³ Below, we draw on the transactional theory of reading and on studies that have examined students' responses to multicultural literature that explore social justice issues to identify pedagogical strategies that can foster critical food literacy.

Critical Food Literacy Through Multicultural Texts

Louise Rosenblatt (1994, 2003), literacy education scholar, described the act of reading a text as a transaction between the reader and the text that can result in a construction of meaning, through the process of drawing upon prior experiences or knowledge to make sense of the people and/or situations depicted in the text. This means that when readers reflect on the same text again later, they may construct new meanings, particularly if their "reservoir[s] of experiences" (Rosenblatt, 2003, p. 70) have expanded or deepened. In addition, transactions with texts can help "us to understand ourselves and others, for widening our horizons to include...cultures different from our own, for helping us to clarify our conflicts in values, for illuminating our world" (Rosenblatt, 1982, p. 276).

While Rosenblatt's transactional theory of reading is often applied to literary texts, she explains that transactions with nonfictional texts can also be critical, inciting people to examine their values or beliefs. Moreover, by highlighting the experiences of people whose voices have

historically been underrepresented or silenced, multicultural texts about or by food workers can serve as what Dixon (2015) calls "counterstories" or narratives that reveal structural inequities and challenge assumptions about the people behind food and the causes of food injustice more broadly. Further building on this idea and drawing on empirical research on students' responses to multicultural literature, we discuss four pedagogical strategies below that educators can use to encourage learners to critically examine their beliefs and consider divergent values.

Critical lenses and horizontal texts

One way to encourage students to consider divergent values is to provide opportunities to read a given text using different critical lenses, with each lens illuminating or raising questions about certain aspects of a text. For example, students can use social class, race, or gender lenses to attend to whether and how the text reinforces, critiques, or challenges stereotypes based on class, race, or gender, respectively (Appleman, 2014; Beach, Thein, & Parks, 2008; Gellis, 2002). Research has shown that reading through these lenses can give students the opportunity to notice aspects of texts students would not have noticed otherwise and encourage students to explore perspectives that they may not have subscribed to (Appleman, 2014; Beach et al., 2008).

To further facilitate learners in reading texts through critical lenses, they can also be given supportive documents that highlight particular issues or topics. Referring to these supportive documents as "horizontal readings," Sumara (1998) discussed how these supplemental texts can help shed light on the larger social, historical, and political factors that shape the experiences of characters in the texts and can encourage learners to consider which values are represented, privileged, or ignored. As a case in point, Beach et al. (2008) found that as high school students responded to multicultural literature using critical lenses and horizontal readings,

offering internships at different locations in the food system or revising food and agricultural policies; however, a discussion of these other approaches is beyond the scope of this commentary.

³ It is important to note that the use of multicultural texts is merely one of many methods for potentially fostering critical food literacy and helping citizens make informed, nuanced decisions. Other potential approaches include

they learned to question stereotypes associated with race, class, and gender, although some had difficulty identifying institutional aspects of White privilege. Giving learners the opportunity to engage with multicultural texts about or by food workers through critical lenses and horizontal readings, then, may foster critical food literacy by inviting students to reflect on their values and beliefs regarding food systems and consider multiple perspectives.

Reflective writing

Reflective writing can complement and enhance students' use of critical lenses for responding to multicultural texts by encouraging students to express their thoughts, think about texts in different ways, and raise questions (Galda & Beach, 2001). Reflective writing can also allow students to go back to their own writing later and become aware of shifts in their reflections and understanding (Beach et al., 2008; Sumara, 1998). The use of reflective writing and critical lenses can therefore complement the development of students' ability to explain the causes and manifestations of unequal power relations. Research on response to multicultural literature has also shown that reflective writing can encourage students to consider different values, beliefs, and assumptions (e.g., Beach et al., 2008; Lium, 2010). Reflective writing can therefore create what Beach et al. (2008) call dialogic tensions: tensions that occur as students' values or assumptions enter into dialogue with those of other students or people in the text. Providing prompts for writing reflectively about texts that highlight food workers can invite students to grapple with alternative perspectives, recognize how their values shape their interpretations of texts, and begin to understand the factors that shape workers' experiences.

Reflective discussions

Reflective discussions, whether in the classroom or other settings, in which learners are encouraged to share their initial responses to texts and challenge one another's responses can also create opportunities for grappling with alternative perspectives that may not otherwise arise, especially if learners are reading on their own. It is important to note,

however, that discussions that create such dialogic tensions do not necessarily occur on their own, and that guidance and scaffolding by a teacher or facilitator can be crucial for deepening students' meaning-making and promoting critical examination of a text (Athanases, 1998; Galda & Beach, 2001; Houser, 2001; Long & Gove, 2003–2004; Singer & Smith, 2003; Thein, Guise, & Sloan, 2011). For example, the instructor can nudge students to consider new perspectives (Galda & Beach, 2001), ask "what-if" hypothetical scenarios that encourage students to take on different views (Beach et al., 2008), use dialogic moves that encourage students to build upon one another's responses (Juzwik, Borsheim-Black, Caughlan, & Heintz, 2013), and model the use of nonjudgmental language (Thein et al., 2011). Using these strategies, instructors can create an environment where students can build upon, add nuance to, or challenge one another's interpretations of texts and the assumptions, beliefs, or values that underlie those interpretations. Facilitating critical dialogues about multicultural texts that make visible the food workers, then, has the potential to cultivate critical food literacy by encouraging learners to reflect on and interrogate their own beliefs about the food system as well as those of one another.

Production of students' own texts through research

In preparing learners to help build just and sustainable food systems, they also need to demonstrate the ability to take action. Inviting students to take action in response to texts about food workers, for example, could enable students to expose stereotypes and raise awareness about alternative perspectives regarding food workers or food systems more broadly. This constitutes the action-taking dimension of critical literacy to transform the world (Luke, 2012; Shor, 1999). Studies suggest that when students respond to texts with social justice themes by conducting research and producing their own texts, they often counter commonly held assumptions and/or challenge norms that perpetuate injustices (Borsheim & Petrone, 2006; Singer & Shagoury, 2005/2006). One potentially fruitful way to foster critical food literacy, then, is to give learners the opportunity to produce texts, whether alternate versions of

existing texts or new texts that highlight their own experiences (or those of their friends or families) of working in the food system.

Using Food Chain Avengers To Help Foster Critical Food Literacy

To illustrate how the four pedagogical strategies above can be used in conjunction with a multicultural text about food workers to help foster critical food literacy among learners, we use the example of *Food Chain Avengers* (Dye & DeLeon, 2014), a comic book published by the Food Chain Workers Alliance to educate youth about food workers. Written by Luis DeLeon, a restaurant worker and member of the Restaurant Opportunities Center of Chicago,⁴ and illustrated by Jerel Dye, artist and social justice advocate, this multicultural text features five characters, each representing one of the five main sectors of the food system: production, processing, distribution, retail, and food service. Based on real experiences of workers, *Food Chain Avengers* exposes the exploitative nature of corporations in the food system vis-à-vis its workers, communities, and the environment, and also tells the story of struggle to victory of workers uniting to combat injustice and change their workplaces.

One strategy that educators can use to help foster critical food literacy is to encourage learners to read *Food Chain Avengers* through the critical lenses of race, gender, class, and citizenship status and ask them to consider how the comic book challenges dominant stereotypes based on race, gender, class, and citizenship status, respectively. To support students' inquiries into such questions, they could read horizontal texts, such as reports and videos created by the FCWA over the last few years, that shed light on the historical, political, or social factors that help explain the oppression of food workers.

For example, in 2012, the FCWA published a report entitled *The Hands that Feed Us: Challenges and Opportunities for Workers Along the Food Chain*. Based on over 600 surveys of food workers and over 40 surveys of employers in the food system, the report

describes the historical background of corporate consolidation, examines the working conditions of workers across the entire food chain, and illuminates inequities, such as low wages, wage theft, and labor law violations, based on race, gender, and citizenship status (FCWA, 2012a). The FCWA also produced a video series by the same title that features workers across the food chain discussing issues of health and safety and exposes different types of discrimination faced by food workers (FCWA, 2012b; 2013a; 2013b). Another example of a horizontal text that could complement *Food Chain Avengers* is a report entitled *Shelved: How Wages and Working Conditions for California's Food Retail Workers have Declined as the Industry has Thrived*. Released in 2014 by the FCWA, the Food Labor Research Center, and Chris Benner, then professor of Community and Regional Development at the University of California, Davis, the report shows that while California's food retail industry has grown consistently in sales and employment, wages have declined and workers face high rates of poverty and hunger. These horizontal texts together provide contextual information that can then help students understand the sources of political, social, or historical structures that oppress food workers.

In addition, to encourage learners to identify and examine their own views and values, educators can provide reflective writing prompts. These prompts could ask them to articulate how the comic made them feel; what connections they can make between the experiences described in the comic and something they have experienced, read, felt, seen, heard about, or learned; or what particular words, phrases, or images in the comic were striking to them. At the same time, educators can complement these self-reflections on the comic by facilitating open discussions that invite students to share their initial responses, build upon or challenge one another's responses, share knowledge, and learn from one another's perspectives.

As learners begin to consider and grapple with multiple perspectives through reflective writing and discussions about *Food Chain Avengers* and understand the sources of structural oppression that

restaurant workers in the U.S.

⁴The Restaurant Opportunities Center is an organization dedicated to improving wages and working conditions for

food workers face, they may feel motivated to take action by researching or producing texts of their own. For example, they may want to interview and/or observe family members or friends who are food workers to understand their experiences and perspectives, write a sequel to the comic that explores other issues that food workers face, or develop a version of the comic with an alternative outcome and/or different or additional characters.

While we used the *Food Chain Avengers* as an illustrative example to show how educators can create space for and potentially cultivate critical food literacy, any number of existing multicultural texts, from books and poems to TED talks and documentaries, could be used as well. It is important to note, however, that further empirical research is needed to determine whether learners demonstrate evidence of critical food literacy through their engagement with *Food Chain Avengers* or other multicultural texts.

Discussion: Toward Critical Food Literacy

Multiple types of critical approaches to food systems education programs have begun to emerge and grow in response to the increasing recognition of the need for just, sustainable food systems. Some focus on training underserved youth in multiple aspects of producing, distributing, and marketing food, while others involve learners, including workers, in social movements that seek to build more equitable food systems. In this paper, we have made the case for another critical approach: the use of multicultural texts to foster critical food literacy. In particular, we have argued that engagement with multicultural texts that reveal diverse or conflicting perspectives and make visible food workers who tend to be less visible has the potential to develop critical food literacy.

Exposing learners to these kinds of multicultural texts is crucial, given that learners may not voluntarily seek views that challenge their own perspectives and values. In addition, the processes of responding to and reflecting on multicultural texts may help learners identify and challenge prevailing assumptions that particular behaviors are sustainable and ethical (e.g., eating locally or shopping at farmers markets) or the notions that sustainable food systems can be purchased

(Johnston & Baumann, 2010) and that citizens can demonstrate civic engagement through consumption and shopping (Jubas, 2012). As Jubas (2012) put it, learners may come to realize that “stores cannot replace ballot boxes and legislatures” (p. 68), and that the act of buying locally grown food by itself will not necessarily lead to social, material transformation of existing food systems. We therefore ultimately argue that citizens’ engagement with multicultural texts has the potential to prepare and invite them to participate in a “food democracy” (Booth & Coveney, 2015; Hassanein, 2003, 2008; Lang, 2007) in which citizens grapple with, deliberate across, and work through diverse views and conflicting values to make informed, nuanced decisions that can ultimately contribute to just, sustainable food systems.

The question of *whether* and *how* learners develop and demonstrate this kind of critical food literacy is, however, an important and currently under-researched area of inquiry. Additional studies could examine, for example, whether and how learners add nuance to or alter their views regarding food and labor as a result of reflecting on multicultural texts about or by food workers and/or sharing their reactions and perspectives with one another. Furthermore, longitudinal research could illustrate the extent to which particular multicultural texts (or dialogues about such texts) have lasting impacts on students’ perspectives and values and/or their interest in seeking alternative perspectives on their own. Another line of inquiry could explore what types of multicultural texts and/or pedagogical strategies facilitate or hinder the development of critical food literacy for a particular group of learners who share similar experiences or demographic characteristics. In addition, comparative research across groups of learners who differ in terms of age, backgrounds, experiences, and/or geographical location could reveal whether and how these characteristics help facilitate or hinder the development of critical food literacy. Studies could also explore whether and how multicultural texts, in conjunction with hands-on learning experiences, such as internships or field trips that expose learners to multiple locations and actors in the food system (including those involved with developing food policies), can help foster critical food literacy.

All these areas of research can respond to the need for critical scholarship on food systems education, as articulated by scholars (e.g., Flowers & Swan, 2012; Meek & Tarlau, 2015), while also offering nuanced insights into the ways in which educators can promote critical food literacy among learners. Ultimately, citizens who demonstrate critical food literacy and engage in democratic discourse about food systems can serve as powerful agents in helping build food systems that are truly just and sustainable for all. 

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The good food jobs nexus: A strategy for promoting health, employment, and economic development

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Abstract

In the aftermath of the Great Recession, cities have looked to the rapidly growing food sector as a promising source of new employment, and yet most of the sector's growth has come from low-wage, dead-end food jobs. A strategy to simultaneously increase food employment, improve conditions for food workers, and enhance access to healthy and affordable food to improve public health requires pursuing a “good food jobs” approach that supports policies and programs that

advance all three goals. To inform such a strategy, this article analyzes policies and programs to create good food jobs in New York City and discusses how these efforts must navigate conflicts among job growth, job quality, and food access and quality. It recommends strategies cities can use to advance a good food jobs strategy, analyzes obstacles, and suggests research that will produce evidence to help cities develop and evaluate policy approaches that contribute to stronger economies and better health.

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Keywords

labor, New York City, good food, community food security

Introduction

Food production and distribution, the food economy, and the relationships among poverty, hunger, and health have long been urban concerns, especially during periods of economic crisis (Vitiello & Brinkley, 2014). While the intersection

of food, the economy, and health is not new, it has become much more politically relevant since the 2000s, as advocates and researchers began to document inequalities in urban food systems, including the dearth of healthy food retail in low-income neighborhoods (Walker, Keane, & Burke, 2010), increasing and racially disparate rates of food insecurity, obesity, and diet-related diseases (Ogden, Carroll, Kit, & Flegal, 2014), and the exploitation of workers throughout the food supply chain (Gottlieb & Joshi, 2010; Sachs, Allen, Terman, Hayden, & Hatcher, 2014; Sbicca, 2015).

Over the last decade, policy-makers and social justice advocates have recognized that simply generating more food jobs is insufficient to lift people out of poverty. They have also learned that low-wage jobs that make unhealthy food more ubiquitous may reinforce existing patterns of economic, social, and health inequality among workers, their families, and their communities. To avoid this outcome, advocacy groups have worked with labor organizations to secure better working conditions throughout the food supply chain and for policies to promote more equitable, often community-based food businesses that are more likely to address community needs than are national chains (Myers & Sbicca, 2015; Sbicca, 2015). Labor organizers have used new tactics to enable segments of the labor force that had been overlooked by traditional unions, including fast-food workers, food deliverers, and immigrants working in food manufacturing, to gain job security, better wages, and opportunities for job enhancement (Milkman & Ott, 2014). These strategies have involved nationwide labor actions, like the Fight for \$15 protests by tens of thousands of low-wage workers in 200 U.S. cities (Greenhouse & Kasperkevic, 2015).

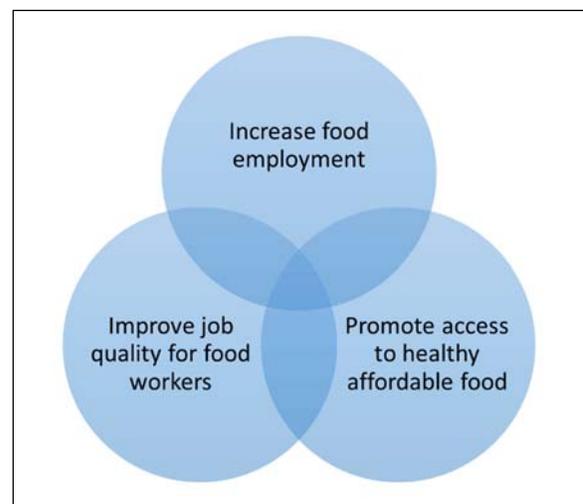
As public health and planning practitioners argue for the need to act on the social determinants of poor health and inequality (Freudenberg, Franzosa, Chisholm, & Libman, 2015; Pastor & Morello-Frosch, 2014), some observers emphasize the potential for local economic development policy to create healthier, fairer communities (Williams & Marks, 2011). In cities such as New York (New York City Council, 2010) and Los Angeles (Los Angeles Food Policy Council, n.d.),

city officials have recognized the need for policies that support food workers.

Many plans, however, uncritically emphasize the benefits of programs to support regional food production, urban agriculture, and food job creation, falling into a local trap (Born & Purcell, 2006) that overlooks the higher level forces that have created inequities in these systems (Cohen & Reynolds, 2014; Gray, 2013) and fails to address potential conflicts among job creation, job quality, and food healthfulness. Just as early notions of sustainable development often ignored the conflicts and inconsistencies among its constituent aims of economic, social, and environmental well-being (Campbell, 1996), discussions of food system development risk oversimplifying the complexity of fixing several moving parts of the food system.

This paper analyzes the synergies and conflicts among the overlapping aims of economic development, workforce development, and public health as policy-makers seek to design, implement, and evaluate good food jobs strategies. Good food jobs are defined here as jobs that offer benefits, provide safe working conditions, and also produce or distribute affordable and healthy food. Good food jobs also pay a living wage or better, defined as wage levels that allow workers to afford adequate shelter, food, and the other necessities of life in their community. Figure 1 shows the intersections among activities designed to achieve these three distinct but overlapping goals: increasing the

Figure 1. The Good Food Jobs Nexus



number of jobs in the food sector, improving the quality of jobs in that sector, and promoting better access to healthy affordable food. The figure highlights the potential for interventions that can contribute to one, two, or all three goals. More food jobs create new, often entry-level opportunities for unemployed or underemployed individuals, thus shrinking inequalities in employment. Improving the quality of jobs by providing higher wages, safer working conditions, better benefits, and opportunities for advancement to lower-paid food workers closes the gap between low-wage and better-paid workers. Finally, enhancing the quality and affordability of healthy food in low-income and Black and Latino communities can reduce the higher burden of food insecurity and diet-related diseases that these communities experience. Identifying opportunities that simultaneously advance two or three goals can accelerate progress toward a more equitable food system.

In practice, however, these goals may conflict; for example, the fast-food industry has generated millions of new jobs, but they pay low wages and produce mostly unhealthy food. In Figure 1, only the space where the three circles overlap constitutes where true good food jobs can grow. New policy initiatives that expand this space can help policy-makers develop strategies that maximize all three goals.

Our analysis seeks to illustrate the synergies and conflicts among the three elements of a good food jobs strategy: increasing food employment, improving employment quality, and promoting better access to healthy affordable food. We do this by analyzing diverse policies and programs in New York City over the past decade that have, to varying degrees, attempted to address one or more of these elements. The examples we present show the involvement of different sectors and constituencies, with different goals and objectives. Their successes and challenges suggest opportunities to advance good food jobs policies and practices at the municipal level, and roles for various constituents, including government, business, workers, advocates, and food system researchers.

Background

By making inequities in employment, food security,

and food access more salient, the Great Recession of 2007–2009 set the stage on which campaigns for good food jobs are now playing out. The collapse of the U.S. housing market and ensuing financial crisis reduced household wealth, dampened consumer demand, and increased under- and unemployment. Poverty and food insecurity increased significantly.

The economic recovery has been led by the growth of low-wage jobs. Although 22 percent of job losses in the U.S. during the recession were low-wage jobs, these types of jobs grew 44 percent as the economy recovered. By 2014, lower-wage industries (including food) employed 1.85 million *more* workers than they had at the start of the recession (National Employment Law Project [NELP], 2014). This low-wage recovery has contributed to levels of income inequality in the U.S. not seen since the Great Depression (Blank, Danziger, & Schoeni, 2008; Essletzbichler, 2015; Piketty & Saez, 2003).

Food has been integral to the nation's economic recovery. Supplemental Nutrition Assistance Program (SNAP) benefits were increased during the recession to provide both a safety net and an economic stimulus (Nord & Prell, 2011). From 2008 to 2014, jobs in food services and drinking places grew by 10.5 million (9 percent) and food and beverage store jobs grew by nearly 3 million (4 percent) (NELP, 2014). By one estimate, the overall food sector (from production to retail) has been growing at approximately twice the rate of the national economy (Pansing, Wasserman, Fisk, Muldoon, Kiraly, & Benjamin, 2013a).

At the municipal level, governments have viewed the rapidly expanding food sector as a key to reducing unemployment and rebuilding their economies while also addressing demands from food advocates to support regional food producers, increase access to healthy food, and make the food system more resilient and just. Cities created policies and programs to expand their food manufacturing, distribution, and retail sectors (Hagan & Rubin, 2013; Pansing et al., 2013b; Pothukuchi, 2005). These initiatives, which ranged from public investments in food hubs and public markets to job training programs, urban farms,

preferential procurement of regionally grown food, institutional food infrastructure, and supermarket subsidies, have been framed as economic development, public health, sustainability, and resilience plans, emphasizing the potential for intersectoral approaches to food planning.

These food policies have also been developed during a period in which movements like Occupy Wall Street as well as progressive elected officials have focused attention on inequality and social justice. This activism drew attention to issues like wages and working conditions, prompting a critical analysis of food-focused economic development strategies and their potential to exacerbate disparities based on race, ethnicity, gender, and national origin.

Labor activists have paid particular attention to income inequality among food workers, as the bulk of the food jobs created over the past decade have been low-wage, insecure, hourly jobs in food services and food retail (paying an average of US\$9.48 and US\$10.51 per hour, respectively) (NELP, 2014). Food jobs are among the nation's *least* unionized, with only 4.2 percent of those in food preparation and serving-related occupations and 1.4 percent of those in food services and drinking places belonging to a union, compared to 11.1 percent of the private-sector U.S. workforce (U.S. Department of Labor, Bureau of Labor Statistics, 2015). Furthermore, many of these jobs are in the fast-food industry (Lowrey, 2014) in which low-wage workers produce poor quality food that disproportionately contributes to diet-related diseases among low-income people and communities of color.

Methods

This article is based on descriptions of food-job development programs and policies in New York City selected to highlight key accomplishments and obstacles in creating good food jobs. We focus on New York City because it has numerous examples of food-job programs and policies that explicitly focus on equity and food as both health and economic development strategies, such as FoodWorks (New York City Council, 2010), One New York The Plan for a Strong and Just NYC (City of New York, Office of the Mayor, 2015a),

and the Milan Urban Food Policy Pact (2015). Since our goal is to illustrate how a city's food, workforce, and economic development policies can set the stage for developing a good food jobs strategy, consideration of a single case is appropriate for assessing that potential (Yin, 2013).

In 2014, the New York City Food Policy Center released a study of good food job initiatives in New York City that comprised a literature review, descriptive profiles of New York City food employment initiatives, interviews with a sample of food workers, and New York State (NYS) Department of Labor (DOL) workforce data (Freudenberg, Silver, & the Good Food Jobs Research Team, 2013). Here we update and supplement this analysis with discussions of the 2013 report held at four public meetings, two for New York City policy-makers and advocates, and two for individuals and organizations in other cities, including Baltimore, Detroit, Philadelphia, and cities in the San Francisco Bay Area. The Department of Labor data were also updated and media reports, government and advocacy group reports, and 2014 and 2015 journal articles on good food jobs developments in New York City were reviewed. We focus on initiatives created by the New York City mayor and city council members who took office in 2014. We used these data sources to identify the main trends influencing good food jobs initiatives, opportunities for creating good food jobs in New York City, and the barriers to such initiatives.

Results

Food Sector Employment in New York City

In New York City, the previously described national economic trends have influenced recent changes in the food sector. Since the end of the recession (2010–2013), New York City's workforce has grown 6.2 percent overall, but low-wage jobs (defined as jobs with median wages below US\$13.84 per hour) have grown 11.4 percent. Jobs that pay above US\$21 per hour have grown just 4.4 percent (Wright, 2013). In 2015, nearly a quarter of the city's total labor force, about one million workers, earned less than US\$20,000 per year. As a result, the percentage of

New Yorkers living below 150 percent of the official U.S. poverty threshold rose from 26.6 percent in 2008 to 30.6 percent in 2013 (City of

New York, Office of the Mayor, 2015b).

The food sector is one of the largest and fastest-growing job sectors in New York City.

Table 1. Changes in Employment in New York City's Food Sector, 2004–2014*

Sector	2004	2014	% Change 2004–2014
Restaurants	159,610	262,670	65
Food Retail	42,594	61,068	43
Grocery Wholesale	19,291	20,753	8
Food Manufacturing	13,882	16,367	18
Food Production	85	87	2
Total	235,462	360,945	53

* Most recent year for which annual data are available.
 Source: New York State Department of Labor (2015). Quarterly Census of Employment and Wages (NYSDOL QCEW) 2004-2014 Average Annual Employment.

Table 2. Changes in Numbers of Establishments in New York City's Food Sector, 2004–2014

Sector	2004	2014	% Change 2004–2014
Restaurants	11,958	18,397	54
Food Retail	4,722	6,395	35
Grocery Wholesale	1,585	1,764	11
Food Manufacturing	871	1,064	22
Food Production *	21	29	38
TOTAL	19,157	27,649	44

* Employment data are incomplete due to nondisclosure suppression.
 Source: New York State Department of Labor (2015). Quarterly Census of Employment and Wages (NYSDOL QCEW) 2004-2014 Average Annual Employment.

Table 3. Changes in Average Real Annual Wages* in New York City's Food Sector, 2004–2014

Sector	2004	2014	% Change 2004–2014
Restaurants	\$26,650	\$26,064	-2
Food Retail	\$25,246	\$23,053	-9
Grocery Wholesale	\$53,704	\$52,386	-2
Food Manufacturing	\$40,463	\$32,883	-19
Food Production†	\$19,125	\$29,490	54
Total	\$29,424	\$27,378	-7

* Inflation adjusted using the Consumer Price Index for Urban Consumers, NYC Metropolitan Area, and 2014 Base Year. †Wage data are incomplete due to nondisclosure suppression. All analyses conducted by NYC Labor Market Information Service, CUNY Graduate Center.
 Source: New York State Department of Labor (2015). Quarterly Census of Employment and Wages (NYSDOL QCEW) 2004-2014 Average Annual Employment.

Between 2004 and 2014 (the latest year for which complete data are available), employment in the food sector grew by 53 percent (Table 1) and the number of food employers grew by 44 percent (Table 2). Fast-food employment in New York City (not shown on tables) increased by 87 percent between 2000 and 2014, reaching almost double its level of 15 years ago (NELP, 2015).

Restaurants and food retail establishments, two large sectors of the food industry with the lowest 2014 average real wages (Table 3), grew more rapidly than smaller sectors with higher wages, such as food manufacturing and wholesale groceries. As a result, overall, inflation-adjusted wages in the food sector declined by 7 percent in this period, with increases realized only in the tiny food production sector.

Growing Good Food Jobs in New York City

Our review of the food job landscape in New York City identified several policies and programs designed to achieve one or more of the three goals shown

in Figure 1. Examples of each are shown in Table 4 with a description of their primary goals and other potential effects on the food system. To illustrate the range and complexity of good food jobs activities that are now being implemented in New York City, we describe in more detail a few

specific policies or programs that are being implemented within each goal. It should be noted that many programs combine several of the strategies shown in Table 4 and that existing programs vary in their ability to contribute to all three good food jobs goals.

Table 4. Selected Strategies for Growing Good Food Jobs in New York City

Strategy	Primary goal	Other goals
Improve job quality for food (and other) workers		
Paid sick leave	Allows workers to stay home without penalty to care for themselves or family members	Improves food safety by encouraging infected food workers to stay home when they are sick
Living wage for city contract workers	Increases pay for designated categories of municipal workers	Provides more stable, skilled food workforce
Higher minimum wage for fast-food workers	Increases pay for fast-food workers, one of largest components of low wage sectors	Reduces societal wage inequality
Workforce development sectoral coordination	Ensures that workforce development in the food sector creates a sustainable infrastructure	May provide skills needed to prepare healthier food
New York City ID Card	Allows undocumented food workers to use city services	Enhances inclusion of immigrants
Upgrade food skills of home care workers	Provides rationale for increased pay for some home care workers	Makes better care for people with or at risk of diet-related diseases
Increase food employment		
Support entrepreneurial food production and business incubators	Creates job opportunities for various under-employed groups	May enable some workers to enter food workforce and gain skills to produce healthier food
Create new food training programs in schools and colleges	Offers credentials and career paths for food workers	May provide skills in preparation of healthier food
Modernize and upgrade wholesale food markets such as at Hunts Point Market	Creates new and/or more skilled jobs in these markets	Makes fresh (and local) food more accessible to local retailers and institutions
Assist small businesses to survive and grow	Increases job stability for small businesses	May allow some small business to target healthier food niches
Promote access to healthy and affordable food		
Expand enrollment in NYC's institutional food programs	Makes healthy free or low-cost food available to vulnerable populations	Creates new unionized jobs in schools, hospitals, and other institutions
Implement universal free lunch in middle schools	Makes free food available to school children without stigma	Creates more jobs in school food program
Create more food processing and distribution centers	Makes fresh, regionally grown food more available to retailers and institutions	Creates new jobs in food production and sustains regional agricultural economy
Implement Food Retail Expansion to Support Health (FRESH) supermarket incentive program	Makes healthy food more accessible in low-income communities	May create more or better jobs in supermarkets

Strategies To Improve the Quality of Food Jobs
Higher wages for fast-food workers. In response to the growth of low-wage jobs, policy-makers, civil society groups, and social movements have taken action to improve the pay, benefits, and working conditions of low-wage workers, especially those in the large fast-food sector. In New York City, Fast Food Forward, a coalition supported by the Service Employees International Union (SEIU) and other groups, has organized fast-food workers to fight for a minimum wage of US\$15 an hour since 2012. They have sponsored rallies and demonstrations, lobbied legislators, and attracted ongoing media coverage (Luce, 2015) in New York City and dozens of other cities around the country.

New York City Mayor de Blasio has called for raising the city's overall minimum wage to US\$15 an hour by 2019, and Governor Cuomo appointed a commission to consider raising the minimum wage for the state's 180,000 fast-food workers to US\$15 per hour (McGeehan, 2015). Mayor de Blasio submitted testimony to the New York State Wage Board urging the board to raise the minimum wage for fast-food workers to the recommended US\$15 per hour (City of New York, 2015); the board made the decision to make this change in May 2015 (Fast Food Wage Board, 2015).

Proponents of the higher minimum wage argued that it would decrease worker turnover, thus providing a more experienced fast-food workforce and reducing food safety risks. Opponents argued that higher wages would lead to job losses, yet the evidence suggests that there would be no real impact on employment in the restaurant sector (Lynn & Boone, 2015). However, the raise does not address the poor food quality produced by fast-food restaurants.

Paid sick leave. After many years of advocacy, the New York City Council approved a paid sick leave law in 2013 (and expanded it in early 2014) that extended the right to paid sick leave to 3.4 million private-sector workers in New York City, including approximately 1.2 million New Yorkers who had no access to paid sick time prior to the law's passage (A Better Balance, 2014). A Better Balance convened the coalition of civil rights, labor and women's groups that supported paid sick leave in New York City. Unlike Fast Food Forward,

which focused its attention on a single sector, A Better Balance fought for legislation that benefited all sectors, including the many low-wage earners in the food sector (Swarns, 2014). Guaranteeing paid sick leave not only ensures that workers are able to take time off when they are sick without losing wages, but also enables sick workers to stay out of the workplace and avoid infecting others (Salazar, 2012). This is especially important for food workers, who can spread contagious illnesses if they report to work when sick to avoid lost wages or reprisals from management (Norton et al., 2015). Thus, this strategy improves working conditions for all low-wage New Yorkers and also improves food quality by reducing food-safety risks.

Strategies to Increase the Number of Food Jobs
Hot Bread Kitchen Incubator is a retail market, catering service, and business incubator. It supports start-up food entrepreneurs in launching scalable food businesses, with a focus on creating pathways to business ownership for low-income women and minorities (Hot Bread Kitchen, 2015a). In 2001 Hot Bread Kitchen became an anchor tenant at La Marqueta, a former public food market in East Harlem run by the city's Economic Development Corporation, which is seeking to revitalize this historical site through retail food outlets, culinary job training, art, music, and community activities (La Marqueta Retoña, 2015).

Hot Bread Kitchen is funded by the New York City Council, New York City Economic Development Corporation, the city's business development agency, and private sources. Two-thirds of its operating budget comes from the sale of breads that appeal to the city's diverse ethnic groups and rental of commercial kitchen space. Through its employer-driven workforce development and business incubation programs, Hot Bread Kitchen helps develop professional skills in the culinary arts, transcend common barriers to fair wage employment, and achieve financial independence and success in the city's food manufacturing industry (Hot Bread Kitchen, 2015b). Since 2008, more than 80 women from 20 countries have trained at the bakery, although data on their current employment status are not available. Hot Bread Kitchen demonstrates the potential of small-

scale enterprises to obtain public and private funding to create incubators that can nurture new businesses, bring immigrants and other underemployed populations into the workforce, and develop trainees' capacity to succeed in the labor market. While the organization is health-conscious and seeks to bring artisanal food to low-income communities, increasing access to healthy food is not an explicit goal.

The Hunts Point Food Distribution Center creates food jobs on a different scale. The center, the largest wholesale food market in the world, includes the Hunts Point Terminal Produce Market, the Hunts Point Cooperative Meat Market, the New Fulton Fish Market, and parcels leased to several national food companies. Currently, 60 percent of the city's produce and 50 percent of its meat and fish pass through the market, making it the most important source of fresh food in the region (Hawkins, 2015). Food is delivered fresh daily via plane, boat, and tractor-trailer from 49 states and 55 countries. The center employs more than 8,000 people.

In 2015, several new initiatives at the Hunts Point Center demonstrated the city's interest in using the food market as a focal point for economic and job development. The city's Economic Development Corporation (EDC), which owns the distribution center, leased a major food distributor an additional 100,000 square feet (9,290 m²), which will allow the fresh produce and specialty food distributor to expand its Hunts Point facility and create 350 new well-paid jobs in addition to 400 jobs the company has already created since moving to the Food Distribution Center in 2007 (NYCEDC, 2015a).

In addition, the mayor announced that the city will invest US\$150 million in the distribution center over 12 years, and proposed to create "dedicated space" to better link New York City markets to upstate food production, thus benefiting the regional agricultural economy (Barkan, 2015). An environmental activist noted that a permanent wholesale farmers market in Hunts Point could help New York City's most vulnerable communities to get better access to fresh, healthy sustainable food (Izeman, 2015). The new commitment supplemented US\$25 million in capital

upgrades that the city provided to the distribution center for resiliency upgrades to the facility in the wake of Superstorm Sandy, which flooded some parts of the market in 2012. Finally, City University of New York recently established an interdisciplinary food studies program at Hostos Community College, located near the Hunts Point Market (Hu, 2015). One goal of the program is to train a diverse skilled food workforce that can make the Hunts Point distribution center a focal point for better food jobs and better availability of healthy food in low-income neighborhoods.

While operating on different scales, both Hot Bread Kitchen and the Hunts Point Food Distribution Center demonstrate the potential for innovative partnerships to create good food jobs and the substantial role that city government can play in supporting such initiatives.

Strategies to Promote Access to Healthy, Affordable Food

Expansion of institutional food programs offers an opportunity to provide free or low-cost healthy food to the city's most vulnerable residents, thereby reducing food insecurity and diet-related diseases in these populations. Each year, the New York City government provides more than 260 million meals or snacks to city residents through institutional food programs sponsored by 11 city agencies (City of New York, Mayor's Office of Contract Services, 2012; New York City Food Policy Center, 2014). The largest providers are the city's public schools, hospitals, and jails. For many recipients, including more than 650,000 school children, institutional food provides a significant proportion of their daily calories. Since 2008, the New York City Food Standards have mandated that city agencies serve food that meets nutritional requirements, leading to significant improvements in food quality (New York City Department of Health and Mental Hygiene, 2015).

If the city were to enroll more eligible users in these institutional food programs and continue to improve the quality of the food they serve, municipal government could support the creation of thousands of new good food jobs. Since much of the support for institutional food programs comes from the federal government (i.e., various U.S.

Department of Agriculture [USDA] programs), expanding and improving institutional food offers municipal and county governments an external revenue stream for supporting health and economic development. In addition, the city's largest institutional food programs employ municipal workers who are members of labor unions, are paid decent wages, receive benefits, and have the protection of city labor standards.

The city's new universal free school lunch in middle schools program provides a specific illustration of how this strategy can contribute to achieving the three goals shown in Figure 1. In 2014, the New York City Department of Education made school lunches free to all students attending middle schools, in an effort to reduce the stigma of the previously required means test. Since implementation of the program, student participation in the program increased by nearly 10 percent in the first six months of the year compared to the same period in the previous year, according to data collected by two school food advocacy groups (Community Food Advocates, 2015). As a result, an additional 10,000 to 15,000 middle school students eat lunch each day. If universal school lunch were to be expanded citywide to elementary and high schools, the advocacy group projected that an additional 120,000 students will eat school lunch each day, a 20 percent increase. According to current staffing patterns in school food, this increase would generate about 1,000 additional unionized school food jobs (Freudenberg et al., 2013) while also improving the health of students. With new city and national mandates to improve the quality and healthfulness of school food, this expansion could make an important contribution to increasing entry-level employment opportunities and reducing food insecurity and obesity among the city's school children.

Food Retail Expansion to Support Health (FRESH) seeks to expand the number of supermarkets in low-income communities. Established in response to a 2008 study, FRESH promotes the creation and retention of local grocery stores in underserved communities through city and state zoning and tax and financial incentives to store operators and real estate developers (NYCEDC, 2015b). By the end

of 2014, FRESH had approved the support of 14 supermarket projects (NYCEDC, 2015b). While some labor groups have called on the city to require FRESH projects to meet labor and wage standards, to date such mandates do not exist, limiting the impact on good jobs (NELP, 2009).

To ensure that FRESH stores increase access to healthy foods, supported projects are required to dedicate at least 50 percent of their space to products intended for home preparation, consumption, and utilization; at least 30 percent to perishable goods that may include dairy, fresh produce, fresh meats, poultry, fish, and frozen foods; and at least 500 square feet (46 m²) to fresh produce (NYCEDC, 2015b). Some critics have charged that FRESH contributes to gentrification by subsidizing more upscale grocers to enter communities where the city hopes to attract new middle-class residents, thus contributing upward pressure on food costs (Angotti, 2010). A Bronx health advocacy group recently recommended extending FRESH to the city's bodegas, which are more prevalent in low-income neighborhoods than supermarkets, to create incentives for these outlets to sell healthier food (LaMantia, 2015).

Expanding outreach and reducing enrollment barriers in SNAP have the potential to provide many low-income New Yorkers with more resources for purchasing healthy food, thus increasing business and job creation possibilities in the city's almost 6,400 grocery stores.

According to the de Blasio administration, about 1.76 million New York City residents received SNAP benefits in 2014, purchasing more than US\$3 billion in food. Because US\$1 of SNAP spending generates approximately US\$1.80 in economic activity (Chrisinger, 2015), SNAP spending contributed US\$5.4 billion to the local economy, much of it to small businesses around the city (City of New York, Mayor Bill de Blasio, 2014). The official SNAP participation rate is 77 percent in New York City, suggesting that about 550,000 eligible residents are not receiving the benefit (Benefits Plus Learning Center, 2015). If half of those eligible were enrolled, they would receive another US\$468 million in benefits and generate about US\$840 million in economic activity, most of it in the city's poorest

neighborhoods. USDA has estimated that every US\$1 billion increase in SNAP benefits creates 9,000 to 18,000 full-time-equivalent jobs, suggesting that enrolling half of New York City's SNAP eligible residents could create between 4,200 and 8,400 new jobs (USDA Economic Research Service [USDA-ERS], 2015).

A variety of evidence shows that SNAP participation reduces food insecurity, increases intake of calcium, folates, and iron and may protect recipients against obesity (Karnik et al., 2011; Leung, Blumenthal et al., 2013; Ludwig, Blumenthal, & Willett, 2012). Recently health researchers have called for changes in SNAP to increase its impact on the nutritional quality available to recipients (Leung, Hoffnagle et al., 2013). A few of these approaches have been tried on a modest scale in New York City, most notably in the Health Bucks programs, which offers SNAP recipients and others a US\$2 voucher which can be used to obtain fresh fruits and vegetables at New York City's farmers markets. SNAP users who spend US\$5 using an electronic benefits transfer (EBT) card at a farmers' market automatically receive the US\$2 Health Bucks credit (Olsho et al., 2015).

In the last year, the New York City Human Resources Administration has launched new SNAP outreach and enrollment campaigns, simplified SNAP certification procedures for various populations, and created a new website to facilitate enrollment (City of New York, Office of the Mayor, 2015a). In addition, the mayor's executive budget includes funding in 2016 to restore 515 SNAP positions cut by the previous mayor's administration, and in 2017 will restore an additional 361 jobs to help residents enroll in SNAP.

Discussion

The descriptions of the eight programs and policies presented here make clear that multiple constituencies, including labor and community organizations, social movements, city agencies, workforce development programs, food businesses, universities, and philanthropy are actively engaged in good food jobs initiatives. Most of these support more than one of the goals shown in Figure 1 and some (e.g., expanding institutional

food programs or increasing enrollment in SNAP) have the potential to advance all three.

At the same time, our review suggests common problems. First, no single organization or coalition has the mandate or mission to coordinate the many strands of good food jobs work, leading to gaps, duplication, and missed opportunities for synergy. While the Mayor's Office of Food Policy, created in 2007, supports good food jobs strategies and has played a positive role convening partners inside and outside city government, it lacks the mandate or resources to operate at the level needed to coordinate multiple small initiatives or bring them to scale.

Second, few funders or funding streams have made creating good food jobs a priority, making it difficult to develop or sustain programs that can operate at the scale needed to influence employment rates, health or food security. Several sources of funding support good food jobs programs and policies in New York, including the state-funded Healthy Food Healthy Communities Fund, the city-funded FRESH (which awards subsidies and tax breaks), the philanthropic Community Food Funders, the U.S. Department of Labor Workforce Investment Act, the New York City EDC, the New York State Empire Development Corporation, and private and venture capital groups such as the Goldman Sachs Urban Investment Group (Freudenberg et al., 2013). However, for the most part, these funders do not coordinate their efforts nor have they systematically given priority to funding that contributes to programs that seek to achieve all three good food jobs outcomes.

Finally, the key constituencies involved in good food jobs have difficulty thinking and acting outside their silos and across the sectors that can contribute to improving the quality and quantity of food jobs and make healthy affordable food more available. At the municipal level, agencies responsible for economic development, small business services, workforce development, city planning, and health seldom communicate and have a modest track record working together for common goals. Even within the food sector, organizations involved in food service, food retail, and food processing seldom develop job training programs across these subsectors, even though they share

certain knowledge bases. These divisions make it harder to bring together the many constituencies who could together advocate for more robust and expansive good food jobs policies.

Coordinating the activities of public agencies across the levels and branches of government has also been a challenge. In New York recurring governance tensions between city and state governments make coordinated action for public-sector good jobs initiatives difficult. A promising exception is a current effort by city and state government agencies, nonprofit groups, and food businesses to create food processing centers in New York City that would create new markets for upstate farmers and make healthier, locally grown food more available in the city's low-income neighborhoods (Brannen, 2013; Cooper et al., 2015).

One critical reason it has proven challenging to create a coordinated and comprehensive plan to grow good food jobs in New York City is that the three goals sometime conflict. For example, the food system often puts efforts to improve the quality of food (i.e., healthfulness and affordability) in competition with efforts to improve the quality of the jobs. The global industrial food system has made high-calorie, low-nutrient products ubiquitous and affordable. Higher-quality food is usually more expensive and less available, especially in low-income, Black and Latino communities. One way that the food industry has kept prices low is to pay its workers below minimum wage and to offer few benefits. In the current system, improving the healthfulness of food usually means higher food prices, as does increasing pay and benefits for workers, since the costs of food and labor are two main drivers of food prices. As a result, healthier food produced by better-paid workers is often more available to better-off consumers, a trend that exacerbates the class and racial/ethnic inequalities in food insecurity and diet-related diseases (Otero, Pechlaner, Liberman, & Gürcan, 2015).

Two examples illustrate this tension. The movement to increase pay and benefits for fast-food workers has for the most part not addressed the role of fast food in epidemics of diet-related diseases in low-income communities. Conversely,

the urban agriculture movement in New York City and the nation has emphasized the health and environmental benefits of this strategy without taking on the enormous challenges of paying decent wages to those who grow food in cities (Angotti, 2015).

Another tension pits the quantity of jobs against their quality. On the one hand, food employment is growing rapidly as a result of broader social and economic trends (more meals away from home; time constraints for low-income households; marketing of fast food in low-income communities). Moreover, the threshold for entry into these sectors (prior education and work experience) is low compared to other sectors, making it an attractive option for the unemployed, young people, and recent immigrants, all groups with high unemployment rates. Food employers offer a wide range of opportunities for part- and full-time work, creating multiple paths into the sector. For these reasons, the fast-food industry has been a prime supplier of new jobs.

However, neither fast-food nor retail jobs are good jobs over the long run. The pay is low, workers are generally not unionized (with the exception of those at some supermarket chains), and career ladders are limited (Food Chain Workers Alliance, 2012; Liu, 2012). Caught between the perceived dichotomy of more jobs or better jobs, until recently most elected officials have opted for the former, diminishing support for good food jobs strategies.

In practice, the opportunities to create plentiful jobs with good pay and working conditions that produce healthy and affordable food are constrained by structural characteristics of our food system and economy. By acknowledging that progress will require balancing these three goals in practice and by developing analytic frameworks that can track progress in all three domains over time, policy-makers, advocates, and researchers can make meaningful changes in our local and national food systems.

Conclusions and Recommendations

Based on our review of the good food jobs landscape in New York City, we make several recommendations for policy, practice, and

research. We encourage policy analysts and advocates in other cities to assess the relevance and generalizability of our findings and the following recommendations.

1. Make the creation of good food jobs an explicit goal of food policy.

By making the creation of more and better good food jobs an explicit strategy of progressive policymakers, food movement activists and organizations, community organizations, labor unions, workforce development programs, and others, it will be possible to align the many constituencies who support this approach, find synergies among current activities, and set collaborative short- and longer-term priorities. Creating spaces where these actors can search for common ground, analyze their experience, forge strategies, and debate differences is an important first step. Learning from other jurisdictions (such as the Good Food Pledge in Los Angeles) and exchanging strategies globally can also be useful. For example, the Milan Urban Food Policy Pact, recently signed by more than 100 mayors from cities around the world (including New York City), calls on cities to “promote decent employment for all, including fair economic relations, fair wages and improved labour conditions within the food and agriculture sector, with the full inclusion of women” (Milan Urban Food Policy Pact, 2015, item 16).

2. Create a municipal infrastructure for good foods jobs initiatives.

A more robust municipal infrastructure might include workforce development and training programs that emphasize all three good food jobs strategic goals. It can also include collaborative funding mechanisms that allow programs to use public and private funds to achieve common objectives and funders to consider the cumulative impact of their investments in this area. Strategic analysis of the food sector and its workforce can identify growing and shrinking job sectors, and training and leadership development programs can cultivate the grass-roots and mainstream political leadership that can make good food jobs a priority. Some of these activities are now underway in New York City, but more consistent policy attention

would accelerate progress.

To date, most of the many good food jobs initiatives now underway in the city are small projects that have not yet grappled with scalability or sustainability. Creating enough good food jobs to contribute to meaningful improvements in health, food security, employment, and working conditions will require the capacity to implement and sustain changes on a scale that goes beyond demonstration projects.

3. Encourage and reward intersectoral thinking and action.

Governments, civil society groups, and businesses will improve their capacity to work across sectors if such behavior is encouraged and rewarded rather than discouraged. Innovative political leaders, social movement leaders, and academics can contribute to this goal by creating safe spaces where intersectoral approaches can be planned, debated, and evaluated. The creation of a Center on Health Equity at the New York City Department of Health, a unit that seeks to coordinate equity work within and across agencies and issues, illustrates this potential, as does the Mayor’s Office of Food Policy. A recent analysis of the potential for growth in food manufacturing in New York City, a food sector that pays higher wages, highlighted the importance of forging stronger relationships between workforce providers and food manufacturers and the creation of policies and programs that help companies grow past the critical three-to-five-year stage so they can scale up and provide quality employment (Becker & Dourmashkin, 2015). Creating opportunities for these organizations to develop shared projects could advance the intersectoral partnerships that good food jobs strategies require.

4. Acknowledge racial dimensions.

If Black and Latino lives matter, then finding ways to make healthy food and good food jobs more available in Black and Latino communities, which experience the highest rates of food, health, and wealth inequalities, must become a priority. Today, many dimensions of our food system are racialized. Blacks and Latinos experience higher rates of food insecurity and diet-related diseases than Whites;

are concentrated in the lowest-wage sectors of the food industry; and are more likely to have less access to healthy food and to be targeted for promotion of unhealthy food (Coleman-Jensen, Gregory, & Singh, 2014; Kirkpatrick, Dodd, Reedy, & Krebs-Smith, 2012; Kwate, Yau, Loh, & Williams, 2009; Papanikolaou, Brooks, Redier, & Fulgoni, 2015; Powell, Wada, & Kumanyika, 2014; Shierholz, 2014; Zenk et al., 2014). These trends also adversely affect other low-income populations and communities of color.

Acknowledging the racialized hierarchies within the food system is a first step toward reducing them (Giancattarino & Noor, 2014). Strategies to promote good food jobs that do not take these dynamics into account risk exacerbating the racial divide by making better jobs and foods more available in wealthier and White communities. In the last two years, several New York City food justice groups have highlighted the racial dimensions of the city's food system. In addition, a few community development corporations, organizations with a history of improving health and job prospects within Black and Latino communities, have developed good food job projects, providing new voices that can bring attention to food and race.

5. Acknowledge key role of social movements.

Social movements have long been the motor force behind improvements in health and living conditions. Many of the most successful efforts to improve food jobs have been led by labor, food justice, human rights, environmental, farmer, and Black social movement organizations. While technical planning skills, familiarity with municipal bureaucracies, and experience in workforce development are also critical, without the passion, commitment, and staying power of social movements, good food jobs proponents will have difficulty overcoming the resistance from the powerful constituencies who benefit from a food system that rewards bad jobs that produce unhealthy food. Weaving together the good food jobs coalitions that can win meaningful and sustainable victories will require leadership from the social movements that support the vision of a healthier and more just food system.

6. Define research priorities.

Our review also identified the need for additional evidence to inform advocacy and policy on good food jobs. Some questions that need answers include:

1. What are the respective costs and benefits of investing in one good food job strategy versus others? For example, how many good food jobs will a US\$1 million investment in food manufacturing versus improved institutional food create? And who experiences the costs and benefits of different strategies? Improving the quality of institutional food, for example, to some extent can use existing federal funding streams, while creating a local food infrastructure may require new municipal or state funding, a political task that competes with other goals.
2. In what circumstances can market forces contribute to creating good food jobs? Are there, for example, viable business models for healthy, affordable fast food, or for lower-cost healthy supermarkets? How can government encourage the development and expansion of such private-sector models?
3. What are viable strategies for bringing innovations to scale and sustaining them? In its first five years, New York City's FRESH program supported 14 supermarket projects that expanded access in a few low-income communities. However, the original FRESH study documented the need for 100 additional supermarkets or grocery stores, and yet many other food stores have closed since 2010. To have an impact on health, innovations need to be implemented on a scale that can reach a significant portion of the vulnerable population, a goal not yet achieved by most good food job initiatives.
4. Our review showed that municipal government can play a key role in activating good food jobs initiatives. But economic and political barriers can obstruct a stronger

public-sector role in food. What strategies can best overcome these obstacles? What framing of the good food jobs approach will mobilize the broadest and deepest support? What lessons can be learned from successes in other cities and other countries?

Taking on these tasks of developing, bringing to scale, and sustaining good food jobs offers city governments and their partners a concrete path to improving health, employment, and community development. Our review of the food sector landscape in New York City identified multiple strategies for creating more good food jobs: more public sector jobs through increased institutional food service; more manufacturing jobs by rebuilding the city's food processing infrastructure; better support for small businesses and entrepreneurs; higher minimum wage for food workers, support for labor unions in their efforts to secure higher wages, and more vigorous enforcement of labor laws; and more training for food sector workers to justify earning more money. Each of these strategies offers municipal governments the opportunity to reassert their role in creating a role for the public sector in food. In the past and in other countries, municipal governments have played an important role in creating public food markets, increasing access to healthy and affordable food, and reducing food insecurity and food- and diet-related diseases (Friends of the Earth, 2010; Pansing et al., 2013b); Rocha & Lessa, 2009; Sonnino, 2009). With the dominance of markets-know-best ideologies, this public sector in food has until recently attracted little policy interest. Now, however, renewed attention to low-wage work, food insecurity, obesity, unequal access to healthy food, and food justice has created opportunities to highlight the capacity of municipal governments to use their food mandates to achieve public goals. 

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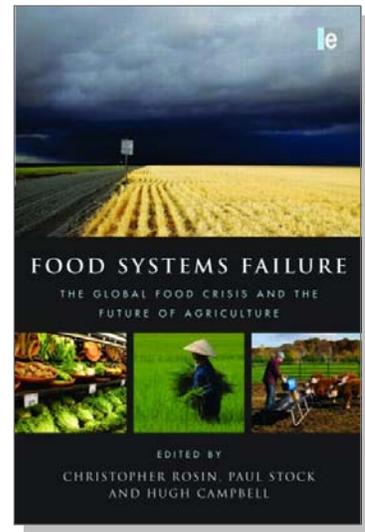
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The possibilities and pitfalls of future food systems

Book review by David V. Fazzino II *
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Review of *Food Systems Failure: The Global Food Crisis and the Future of Agriculture*, by edited by Christopher Rosin, Paul Stock, and Hugh Campbell. (2012). Published by Routledge in its Earthscan Food and Agriculture series. Available as hardcover and paperback; 242 pages. Publisher's website: <https://www.routledge.com/products/9781849712293>



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The contributors in the 14 chapters of *Food Systems Failure: The Global Food Crisis and the Future of Agriculture*, through different theoretical perspectives, view the global economic and food crisis of 2008 as a reflection of pervasive structural inequalities present in food systems, rather than as a one-off event or crisis. The text is a product of a regional conference focused on the global food crisis and was one of a series of conferences held

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to address what were perceived as pressing problems in food systems at a variety of scales. Organizationally, the text maintains internal coherence through introductory and concluding chapters by the editors, the use of an index, and the efforts of the various contributors as they reference one another's chapters. Taken as whole, *Food Systems Failure* provides fertile ground for discussions in where we have been in conceptualizing food systems and where we might be going, including the power of envisioning “utopic possibilities” in the face of neoliberal “realities.”

These “realities” require a selective interpretation of data by separating marketable products from the processes of production. This is apparent in the discussion of Marx’s “metabolic rift,” where in soils and labor are exploited in the process of

accumulating capital (Colin Butler and Jane Dixon's chapter 7, "Plentiful Food? Nutritious Food?"). Externalities and increasing vulnerabilities, including the impacts of climate change on agriculture, are also considered (Geoffrey Lawrence, Carol Richards, Ian Gray and Naomi Hansar's chapter 9, "Climate Change and the Resilience of Commodity Food Production in Australia").

Advocates of the neoliberal, productivist approach to agriculture tend to justify their continued exploitation of social and ecological systems by describing their endeavors as heroic ventures to feed the world. The multitude of challenges in food systems, including the failure of food systems to live up to their full potential in provisioning each one of us with sufficient and high-quality food, presents neoliberal actors with an opportunity to suggest solutions. Scoping these issues as a series of interrelated crises implores actions, something, indeed anything must be done in the name of the future sustainability of social and ecological systems. This allows for a wide latitude of potential solutions, some of which appear to be less scrutinized than others. This is likely the case in Robert Watson's prologue, "Food Security — Now is the Future," wherein he notes that "there is considerable debate over the environmental impact of biofuels" that can "raise fuel prices and reduce our ability to alleviate hunger" (p. xiii). He nevertheless maintains that, "increased public and private investments are needed to develop next-generation biofuels" (p. xiii). In doing so he seemingly argues for a technological fix and neglects the issue of social justice, such as global land grabs, in the name of "developing" the energy sector as discussed in Philip McMichael's chapter 5, "Biofuels and the Financialisation of the Global Food System."

A short way down the same page, Watson continues calling for more technology in the face of climate change and world hunger:

Currently, the most contentious issue in agriculture science is the use of recombinant DNA techniques to produce transgenic products, primarily because there is not yet widespread agreement on the

environmental, human health and economic risks and benefits of such products. Many believe that less technology and intervention is the answer. But, against a backdrop of a changing climate and the threat of even larger parts of the world going hungry, it is clear that integrated advances in biotechnology, nanotechnology, remote sensing and communication technology, for instance, will be important in providing opportunities for more resource efficient and site-specific agriculture. For any technology it will be critical to assess the risks and benefits on a case-by-case basis. (pp. xiii–xiv)

I reproduce this paragraph in full in order to examine some of the underlying assumptions that Watson utilizes in order to justify the use of all means available. Here Watson reiterates the near-inescapable triumphant narratives of industries that have been the primary drivers of these technologies, have worked to control the flow of scientific information on said technologies (as the recent reports on glyphosate indicate), and have attempted to assert the moral high ground by stressing the importance of using all possible avenues in order to arrest human death and suffering resulting from nutritional deficiencies. While acknowledging that transgenic products (GMOs) are contentious, Watson flattens and marginalizes the varied counterarguments by simply noting, "Many believe that less technology and intervention is the answer" (p. xiii). He then goes on to equate efficiency with the increased use of technologies, suggesting they can work in synchrony with one another to provide "opportunities for more resource efficient and site-specific agriculture" (p. xiv).

The prologue is particularly noteworthy in the context of how the editors frame their analysis in chapter 1, by noting the tension between corporate control of agriculture that necessarily treats foods as commodities, and in chapter 14 (Table 14.1, p. 224) where they refer to genetic modification as a nonsystemic change that in itself "can only perpetuate the business-as-usual model" (p. 225). The use of GMOs is specifically challenged in several chapters. Navé Wald, Christopher Rosin, and Doug Hill's chapter, "'Soyisation' and Food

Security in South America,” discusses the social meaning of GMO use, particularly how elites associate GMOs with modernization and the ideal of productivity, whereas “an exemplary anti-hegemonic peasant organization” views them as destructive of forests (p. 167). The aforementioned chapter 9 covers how GMOs are promoted by the Australian Bureau of Agriculture and Resource Economics as a part of a neoliberal approach to agriculture and how GMOs are typically paired with “expensive proprietary petrochemicals” (p. 142), which increase costs to farmers and exacerbate climate change. Finally, Paul Stock and Michael Carolan’s chapter 8, “A Utopian Perspective on Global Food Security,” recalls the qualitative rejection of U.S. shipments of GMO corn as food aid to southern Africa, underscoring that what is acceptable food is more than calories to be gratefully consumed (p. 116).

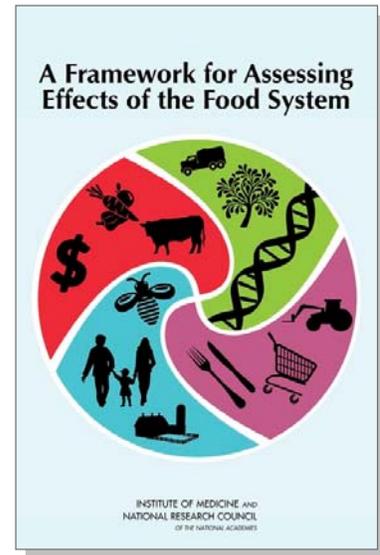
This is not to suggest that the contributors of this volume are merely celebratory of local and alternative food institutions, as the utopic possibilities are balanced with potential pitfalls in terms of social justice (see the aforementioned chapter 8 and Kristen Lyons and Kiah Smith’s chapter 12, “Negotiating Organic, Fair and Ethical Trade: Lessons from Smallholders in Uganda and Kenya”). While Hugh Campbell’s chapter 3, “Let Us Eat Cake? Historically Reframing the Problem of World Hunger and its Purported Solutions,”

shows us that shifts in food systems are indeed possible, as there have been two historical shifts in the last 170 years, current and historical models of food systems fall short of being models of food systems sustainability. While solutions are varied and particular, they fail to reach a one-size-fits-all solution for replacing the approach of production agriculture. As the editors note in their concluding chapter, “the underlying concern of the contributing authors is that more just, flexible and productive food systems are subject to the overwhelming influence of structural constraints and local context. Perhaps the key conclusion to be drawn from this group of cases is that we must abandon the beguiling notion that there is *one* solution for world hunger” (p. 223). This is a powerful shift that avoids what the editors frame as the pitfall of entertaining the “global trap.” This would entail shifts to more appropriately scaled models wherein alternative (utopian) governance spaces and possibilities for culturally embedded agriculture (see Jules Pretty’s chapter 2, “Agriculture and Food Systems: Our Current Challenge”) can more freely emerge as they have in some settings (see Alec Thornton’s chapter 13, “Food for Thought? Linking Up Urban Agriculture and Local Food Production for Food Security and Development in the South Pacific”) so that food can become a human right we all enjoy (see Claire Mahon’s chapter 6, “The Right to Food: A Right for Everyone”). 

Evaluating the impacts of food systems

Book review by Charles Francis ^{a*} and Amy Swoboda ^b
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Review of *A Framework for Assessing Effects of the Food System*, by Institute of Medicine & National Research Council. (2015). Published by The National Academies Press, Washington, D.C. <http://dx.doi.org/10.17226/18846>. Available as paperback or free PDF; 430 pages. Publisher’s website: <http://www.nap.edu/catalog/18846/a-framework-for-assessing-effects-of-the-food-system>



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Bringing order and clarity to the analysis and evaluation of food systems is an elusive goal, especially when multiple agencies are involved in the design and implementation of policy. Many

actors in the system are involved, from input suppliers to farmers, from companies in processing to wholesale and retail sales, and to those concerned with nutrition and health. The mix of public and private organizations further complicates communication, and universities are little help with their “silo” organizational structure into specialized departments. *A Framework for Assessing Effects of the Food System* provides a comprehensive study of how we could assess our food system, plus some useful recommendations for improvement.

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After an overview of the U.S. food system, there are chapters on health, the environment, social and economic issues, and an integrative look at this “complex adaptive system” and why it is so difficult to study. The report concludes with details on the analytic framework it used, six case studies, and conclusions. There are useful appendices with the meeting agendas, tables of data, and

biographies of the members of the committee, who essentially should be considered the co-authors of this book. In this review we examine each section briefly and then conclude with an evaluation of the conclusions and suggestions for further exploration that were not considered in the report.

In addition to the thoroughness typical of studies by the National Academies, this food system review provides valuable insights on how to deal with complex systems. Noteworthy among them are emphases on systems and holistic thinking, principles of ecology and agroecology such as hierarchical organization of subsystems, and potentials of integration efficiencies found in complementary activities among groups that often do not communicate with each other. The six food system case studies may not be the most frequently cited examples expected by some readers. Yet they are exemplary in spanning issues from antibiotic use and animal welfare to nutrient management alternatives in crop production, and from consumption patterns and human health to the future importance of biofuels for energy independence. This wide spectrum of examples provides appeal to a broad audience, and each example illustrates the complexity of designing a resource-efficient and healthy food system and society. Our review adds value by examining strengths and weaknesses of the report.

In both the summary and the introduction, the analytical framework is spelled out in detail. A committee composed of experts collected an exhaustive volume of information and met five times to assess its resource base. The committee then held public sessions and a lengthy workshop. The committee members developed a consensus on definitions and uncovered the myriad complexities of interactions that complicate a simple understanding of this country's food system. They set boundaries around the U.S. food system for the purpose of analysis, accepting that this is difficult given the large degree of participation by international manufacturing and trade corporations in the global food market. They consciously avoided the public policy arena while recognizing the danger of analyzing strengths and weaknesses of the system without exploring the effects of policy on its functions and decisions by key food

system players.

"Food supply chain" is found as a descriptor in most definitions of the food system, so it is not surprising that this was chosen as the conceptual model to organize this framework for analysis. The linear, cause-and-effect model simplifies the analysis, and as presented in text and figures includes both the steps in the chain and quantitative estimates of material flows along the chain. Those unfamiliar with the food sector may be surprised to see how little value of production (12%) is accumulated on the farm, with food services, retail and wholesale trade, and agribusiness absorbing about 75% of the value of each food dollar spent by consumers. There is discussion about how the food system is imbedded in a larger socio-economic and biophysical context of society that involves markets and policies. Timelines provide historical perspective, and figures trace land and labor in agriculture, calories consumed and obesity, total food expenses and amount spent outside the home, all useful to gain a broad appreciation of trends in the system. A brief section on the changing impact of the food system on the environment is overshadowed by detailed descriptions of changing policies and markets, certainly key issues in describing food system function and necessary to include in any assessment of this sector. In one figure, a dashed line indicates less frequently recognized feedback from consumers to farmers. Had an ecologist served on the committee, there might have been more consideration of the food system as a web of connections rather than simply a chain. This perspective comes from agroecology, where inputs include contemporary resources on the farm, such as sunlight, rainfall, and snowfall, and not just the purchased inputs. The cycle would also reveal a system where very little material from food "waste" is recycled back into the production system; waste is a huge factor that accounts for some 30% to 40% of all food produced, enough if captured to easily satisfy global food needs for decades into the future with current production practices. There is also a lack of life-cycle analysis of the production-to-consumer flow of food, and consequently an underestimation of the energy and other resources used to produce, process, transform, and transport food through the system. Thus

the overview and groundwork for the analysis have serious omissions that should be corrected in future searches for rigorous and comprehensive treatment of how to evaluate the food system.

The chapter on health effects of the system explores how food today affects the U.S. population and attempts to assign causes for these effects. Important to the discussion is emphasizing that food does not operate in isolation, and that many other factors, including lack of exercise, sedentary jobs, and changing dietary patterns and choices are confounded in any overall analysis of the system. Well-known consequences of poor diets such as growing incidence of obesity, diabetes, and heart disease are described and attributed to unhealthy food choices. When market forces and intense lobbying efforts by major food manufacturers and commodity groups drive some regulations and recommendations, it is unlikely that the result will be in line with healthy diets and public health goals. This quandary seems difficult to solve in a capitalist system. The chapter mentions new research revealing that individual genetic differences and cultural norms affect food choices, and noting awareness that one recommendation does not fit all. Public health programs depend on policies, education, and voluntary efforts by industry, although many question the objectivity of both research and education sponsored by those who have products to sell. There is ample data provided and useful figures to illustrate health factors such as obesity, chronic diseases and nutrient deficiencies, plus biological and chemical pollutants. Again, the chapter is rich with references and a number of suggestions on developing indicators.

Environmental effects of the food system described in the next chapter include pollution and contamination, depletion of nonrenewable resources, and disruption of other activities of society. The first pair receives the most attention in the press and is most easily measured. The text is accompanied by useful figures that trace the trends of these effects over the past two to three decades. Complexities emerge in analysis, such as the mixed effects of confined animal operations that reduce time on feed and reduce methane emissions along with the pollution from these point sources of production. Lack of monetary rewards for

ecosystem services provided by agriculture confound attempts to measure and encourage improvements, but there is growing recognition of these emergent properties of food production.

Most importantly, the economic and social aspects of the food system contributing to health and well-being are multiple, interrelated, and complex. For example, equity in wealth, working conditions, and nutrition education all contribute to the overall health of the U.S. population. Related to the economic efficiency of farming, increasing productivity with reallocation of inputs demonstrates the positive effects of research and adoption of new technologies, although there are substantial concerns about economic limits of profits due to yield plateaus in major crops (maize, wheat, and soybeans). While labor inputs have decreased markedly, fertilizer and pesticide use has increased, spurring concerns about higher levels of pollution from agriculture. In terms of safety, farming is one of the most dangerous occupations in the country, so it is good to learn that over 90% of farm families do have some form of insurance, well above the national average. Farm and retail food employees have the lowest wages, and virtually all people in the food industry have salaries below the national average. Food prices have gone up more than overall inflation in the consumer price index over the past decade. All these data related to economic and social dimensions of food systems provide valuable baseline results on which to develop credible analyses and indicators.

The overall food situation in the U.S. is described as a complex adaptive system (chap. 6, p. 233), which explains the difficulty in deriving useful indicators for assessing the health of the system. There are multiple factors involved and important feedback loops that evolve over time in response to resource availability, markets, and policy. It is helpful to see this perspective, one that could inform our long-term focus on food *webs and cycles* rather than today's insistence on treating the system as a food *chain*. The system is complex and dynamic and is variable both spatially and temporally, which complicates the quest to establish a useful framework for analysis. This theme is continued in Chapter 7 with a focus on how well a framework can be used to evaluate a food system,

how this must relate to its effects on the population, and its potential to establish a baseline for future comparison. This concluding discussion is the most integrative and holistic in the book, where recognition of the need to look at the entire food system, the multiplicity of effects and interactions, and the importance of a time dimension are all brought into focus. The challenge of objectively choosing indicators and scales, putting priority or weights on each indicator, and combining these into something workable that can inform policy and future economic decisions is clearly articulated. A reader leaves this chapter convinced that measurement is possible, but that how a procedure is designed could strongly influence the application and results. It is essential that this be done by persons without specific vested economic interests, although all the players are obviously consumers and have a stake in the outcomes.

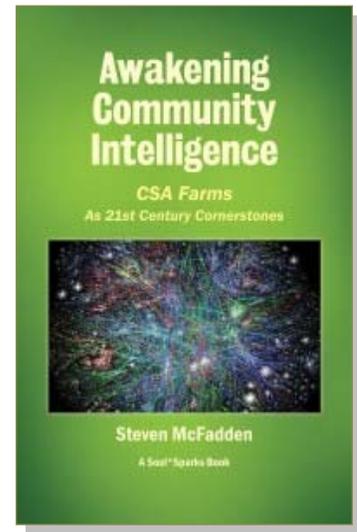
The six case studies represent a wide range of food system–related activities and explore the diversity of possible applications. Their presentation following the same organization into subtopics allows comparison across cases; for example, increased fish consumption, along with that of fruits and vegetables, could improve diets and health compared with our present meat-rich habits. Contemporary issues of growing concern to the

public include the impacts of nitrogen on the environment and animal welfare as illustrated by poultry housing. Trade-offs between the production of biofuels and food are discussed in one case, a critical current issue that often avoids the obvious alternative of reducing demand through conservation. One critique we have of the selected cases is their focus on short-term issues, a choice which overlooks creative food production and food system alternatives, such as organic farming, taking advantage of local food opportunities, shifting to grain-based diets, and purchasing more in-season products, among others. The focus seems to be on fine-tuning the current model, a realistic yet conservative approach that begs to be extended using the same metrics to futuristic alternatives. Overall, the committee concludes that having a framework for measuring impacts of the food system is a critical task to help inform our priorities and policies, while at the same time admitting that this is a huge chore that is fraught with challenges that come from limited and contradictory science, vested economic interests, and the complacency of a population that fails to see many of the faults in the current system. Readers should take seriously the observation by Pulitzer Prize winner René Dubos, who said, “Wherever human beings are concerned, trend is not destiny.” 

Anchors in a globalizing world

Book review by Kimberley Curtis *
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Review of *Awakening Community Intelligence: CSA Farms as Community Cornerstones*, by Steven McFadden. (2015). Published by Chiron Communications; 77 pages; available as ebook and paperback. Publisher’s website: <http://chiron-communications.com/?p=2115>



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In the slender volume *Awakening Community Intelligence*, journalist and long-time community supported agriculture (CSA) advocate Steven McFadden argues for the exponential expansion of CSAs. In the face of profound, disruptive challenges in the 21st century—climate change, resource depletion, geopolitical instability—McFadden believes CSAs have the potential to become “community cornerstones” that provide

“key points of stability and orientation” (p. 20). In ten very short chapters, McFadden unfolds his vision of this potential and issues a call to action.

A “cornerstone” is the central metaphor around which McFadden organizes his vision. Drawn from the craft of stone masonry, the cornerstone is “the base upon which other stones are set and the building takes its form” (p. 9). That base, as we look at CSA, is a specific plot of farmland with tangible connections to the natural cycles of life and to which shareholders and farmers freely tie their fates together in forms of reciprocity: the community of shareholders taking care of farmers while farmers take care of the land and nourish the community. These are the sturdy cornerstones. But McFadden’s notion of community cornerstones is bigger and more dynamic than the world the stone mason metaphor conjures. It is the cosmic, scintillating image on the cover, he tells us,

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that captures his vision. With the help of digital networking, CSAs could become a “network of light-giving impulses”; they could serve as “a model for a dynamic, far-flung, and intelligent network of nodes” in which “community intelligence” and “land-based intelligence” is awakened (p. 10). Anchored and networked and intelligently sparking, CSAs, he thinks, can bridge the gap between the personal and the global, becoming worldwide nodes of “environmental and human health consciously woven into a network of associations” (p. 68).

This is McFadden’s vision. But there is a sizeable gap between the ideal and the real, and the call to action he develops is designed to close that gap. Both his experience and his research show that community is weak in CSA. Thus he returns to the original concept of CSA—the historical cornerstone, as it were—identifying three “seeds” that have gone dormant but are still viable (p. 25). These are “shared ownership and risk, free will participation as members of the community, and intelligent partnership with nature” (p. 32). Mutual commitment and, most importantly, active participation and shared labor on the part of community shareholders are the core issues here, and McFadden believes that these are increasingly missing, with some scholarly studies to support his claim. On the one hand, increasing numbers of CSAs are more about marketing strategy and profit than about building webs of community relationships and community intelligence. (McFadden calls these new forms “genetically modified CSAs” (p. 32).) On the other hand, shareholders, and indeed all people who want to care for the land and have access to healthy, fresh food, must understand that “farming is everyone’s responsibility” (p. 40). McFadden’s call is for renewed appreciation of this insight, and for a reinvigorated “free will association” in support of farmers and an awakened community intelligence.

This call is critical in the face of the ravages industrial capitalism enacts on human and ecological communities. McFadden’s vision of CSA’s contribution to an alternative social economy based on webs of association and meaning is indebted to a robust tradition of social theorizing and community experimentation to build associational

democracy and social economies by reembedding social and ecological values into the creation of living economies (Alperovitz, 2011; Berry, 2002; Polanyi, 1968). And he rightly identifies community (which he calls “free will association”) as the weak link in CSA. Yet when he attempts to address it, reflecting on the need for a core group to sustain the CSA model and observing that it is mostly full- and part-time homemakers who form the backbone of these core groups, he celebrates women rather than critically interrogating the implications of this fact for his vision. Are CSAs sustained by women of relative privilege? Do they flourish and are they anchored in only parts of our communities?

Books designed to be visionary calls to action are different from treatises of social critique or hands-on, practical guidebooks. As such, they run two risks. One, they risk glossing over critical problems. And when they do, they may weaken the visionary power they otherwise might have. An undifferentiated and unmarked notion of human community is one such weakness in McFadden’s work. Two, they risk not giving readers enough texture and context to support the vision. For example, readers would have been inspired to learn some basics about the growth of global CSA networks like URGENCI (URGENCI, n.d.) as well as some of the past and current stories of real connections between CSA nodes spreading around the globe. Likewise, some of the bolder actions CSAs have undertaken, such as removing land from the market and forming associational, value-based relationships with local banks to stabilize and enact their CSA, would have excited readers’ practical imaginations.

McFadden is not a scholar, and readers will not find in his work deep exploration of ideas or concepts. Nor will they find fully developed reflections on the challenges to CSAs that might be useful to practitioners. But what they will find is a hopeful and visionary sketch of what CSAs could become that is grounded in the experiences of communities over the last 30 years, including his own. His vision of CSAs as community cornerstones that anchor us to the land in concrete associations that engender orienting “community intelligence” about the entwining of human and

ecological communities, *and* which foresees using that intelligence to enact global networks—all of this is powerful and welcome. It is a vision that can and should be built upon. 

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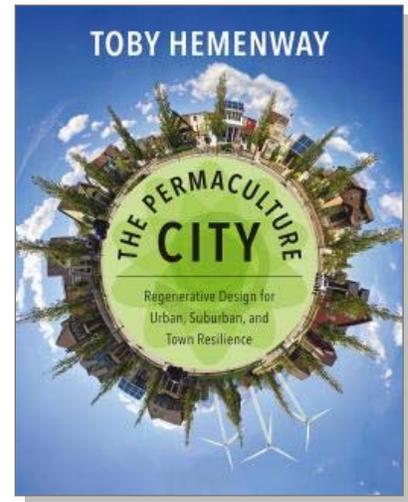
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A whole-systems design approach to city living

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Review of *The Permaculture City: Regenerative Design for Urban, Suburban, and Town Resilience*, by Toby Hemenway. (2015). Published by Chelsea Green Publishing; 288 pages; available as eBook and paperback. Publisher's website: <http://www.chelseagreen.com/the-permaculture-city>



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Toby Hemenway's recent book is a well grounded follow-up to his earlier book, *Gaia's Garden*, which was instrumental in introducing the concept of permaculture to an American audience. Despite the fact that many books on permaculture have been published since its 2001 publication, Hemenway's earlier publication remains the best-selling permaculture book in the U.S.

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It is not necessary to have a familiarity with permaculture prior to reading *The Permaculture City*, as the author has done a masterful job of explaining permaculture principles, design methods, and the steps of the design process. Permaculture is described as “a set of decision-making tools, based on natural systems, for arriving at regenerative solutions to design challenges of all kinds” (p. xii). Permaculture is concerned with the design of ecological human habitats and food production systems. It is a land-use and community-building design method that strives for the harmonious integration of human dwellings, microclimate, annual and perennial plants, animals, soils, and

water into stable, productive communities. The focus is not on these elements themselves, but rather on the symbiotic relationships created among them by the way we place them in the landscape. This synergy is enhanced by mimicking patterns found in nature.

Those interested in ecological design, agriculture and food systems, as well as city planners, landscape architects, civil engineers, and developers should read *The Permaculture City*. Permaculture, as the author notes, is a universal design tool that has something to offer everyone. As permaculture applies whole-systems thinking to problem solving, it offers a clear approach for the development of regenerative human settlements. The author states: “Permaculture is not a discipline in itself or a set of techniques but rather a design approach that connects different disciplines and makes use of a wealth of strategies and techniques. It, like nature, uses and combines the best features of whatever is available to it” (p. xii). Hemenway brings forth the notion that we need a new academic discipline that tethers the disciplines involved in the design and building of communities, resulting in an integrated practice that achieves a resilient way of living on a finite planet.

More than 50 percent of the world’s population now lives in urban areas. As the population shifts to high density communities, urbanists must develop new resilient practices considering the depletion of oil supplies, dwindling water resources, and climate change. Hemenway offers a positive path forward through in-depth exploration of design for the urban home and community, specifically gardens, water, and energy solutions. Hemenway encourages community empowerment by securing the livelihoods of community members through engaging and deliberate design. The valid and sensible examples of permaculture practices demonstrate that designers and planners are now in a position to begin to scale these practices up to advance more regenerative communities.

Throughout Hemenway’s book, various leverage points—points of intervention where the least work accomplishes the most change—are

identified. For example, there are several leverage points that influence microclimates in town yards. Microclimates are shaped by the sun, breezes, and moisture interacting with buildings, slopes, plantings, road surfaces, and other physical elements. Through thoughtful placement of these elements, designers can extend the growing season, stretch the plant palette into less hardy species, reduce heating and cooling costs, and provide comfortable year-round yard space that is neither too hot nor too cold.

Hemenway explores household water-saving projects before analyzing ways to store water in the soil. The author addresses greywater techniques as well as several methods of capturing and using rainwater. The author makes note of several irrigation methods that are inexpensive, reduce water use, and use appropriate greywater strategies such as proper location and complimentary vegetation.

The ability to transport people and goods is important in a well-functioning city. While the author notes the need to establish resilient processes for the provision of water, food, and energy, he overlooks the vital role of transportation. In a low-carbon future, the book would be strengthened with resilient solutions to transportation, whether through the construction of more bicycle facilities or recognition of the growing role that cargo bikes are playing in moving goods through city streets.

The book is well organized and eye-catching, with sidebars, full-page panels with examples, and explanations of permaculture techniques and principles in a distinctive gray color, providing an illustrative and engaging experience. A three-page panel is devoted to methods of enhancing microclimates in town yards.

The Permaculture City offers hopeful and inspiring case studies of projects in metropolitan areas around the country. It is of tremendous value to anyone concerned with our uncertain future and the need to build communities positioned to meet future demands for dynamic and resilient urban living.

