

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 lowwage, 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 welldocumented 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 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 largerscale producers, relegating even successful smallscale 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 commodityproduction 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 sugar 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 landlinking 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 powersembodied 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-

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

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

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 landlordtenant 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 newentry 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 caseby-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 longterm 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 ranchette 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 landownertenant 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. Incubators 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 ethnocentrisminvolved 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 midsized 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.

References

- Ahearn, M., & Newton, D. (2009). Beginning farmers and ranchers (Economic Information Bulletin No. EIB-53). Washington, D.C.: U.S. Department of Agriculture, Economic Research Service. <u>http://www.ers.usda.gov/publications/eibeconomic-information-bulletin/eib53.aspx</u>
- Agudelo Winther, E., & Overton, M. (2013). The Farm Incubator Toolkit: Growing the next generation of farmers. Lowell, Massachusetts: New Entry Sustainable Farming Project. Retrieved from <u>http://nesfp.nutrition.tufts.edu/resources/nifti-</u> farm-incubator-toolkit
- Beckett, J., & Galt, R. E. (2014). Land trusts and beginning farmers' access to land: Exploring the relationships in Coastal California. *Journal of Agriculture, Food Systems, and Community Development,* 4(2), 19–35.

http://dx.doi.org/10.5304/jafscd.2014.042.008

Brasch, S. (2014, April 28). USDA announces \$19 million in grants for new farmers [Blog post]. Retrieved from <u>http://modernfarmer.com/2014/</u>04/uusda-announces-19-million-grants-new-farmers/

- Brown, S., & Getz, C. (2011). Farmworker food insecurity and the production of hunger in California. In A. H. Alkon & J. Agyemon (Eds.), *Cultivating food justice: Race, class, and sustainability* (pp. 121–146). Cambridge, Massachusetts: MIT Press.
- California Civil Code CIV § 1940.3. (2008). Retrieved from <u>http://codes.findlaw.com/ca/civil-code/civ-sect-1940-3.html</u>
- Cowan, T., & Feder, J. (2012). The *Pigford* cases: USDA settlement of discrimination suits by black farmers (Report RS20430). Washington, D.C.:
 Congressional Research Service, Library of Congress. Retrieved from <u>http://www.clearing house.net/chDocs/resources/caseStudy_Tadlock CowenJodyFeder_1361971920.pdf</u>
- Ewert, B. M., (2012). Understanding incubator farms: Innovative programs in new farmer development (Master's thesis). University of Montana. Retrieved from <u>http://scholarworks.umt.edu/etd/1146/</u>
- Geisler, C. (2015). Trophy lands: Why elites acquire land and why it matters. *Canadian Journal of Development Studies*/ Revue Canadienne D'études Du Développement, 36(2), 241–257.

http://doi.org/10.1080/02255189.2015.1041881

- Guthman, J. (2004a). Agrarian dreams: The paradox of organic farming in California (First ed.). Berkeley: University of California, Berkeley.
- Guthman, J. (2004b). The trouble with 'organic lite' in California: A rejoinder to the 'conventionalisation' debate. *Sociologia Ruralis*, 44(3), 301–316. http://doi.org/10.1111/j.1467-9523.2004.00277.x
- Hamilton, N. D., (2012). America's new agrarians: Policy opportunities and legal innovations to support new farmers. *Fordham Environmental Law Review, 22*(3), 523–562; Drake University Law School (Research Paper No. 12-12). Retrieved from <u>http://ssrn.com/abstract=2025197</u>
- Harrison, J. L. (2006). 'Accidents' and invisibilities: Scaled discourse and the naturalization of regulatory neglect in California's pesticide drift conflict. *Political Geography*, 25(5), 506–529. <u>http://doi.org/10.1016/j.polgeo.2006.02.003</u>
- Harrison, J. (2008). Abandoned bodies and spaces of sacrifice: Pesticide drift activism and the contestation of neoliberal environmental politics in California. *Geoforum*, 39(3), 1197–1214. http://doi.org/10.1016/j.geoforum.2007.02.012

- Harrison, J. L. (2011). *Pesticide drift and the pursuit of environmental justice*. Cambridge, Massachusetts: MIT Press.
- Hassanein, N. (1999). Changing the way America farms: Knowledge and community in the sustainable agriculture movement. Lincoln: University of Nebraska Press.
- Henke, C. R. (2008). Cultivating science, harvesting power: Science and industrial agriculture in California. Cambridge, Massachusetts: MIT Press.

Hils, A. (2015). USDA announces nearly \$18 million to train, educate the next generation of farmers and ranchers [Press release]. USDA National Institute of Food and Agriculture (NIFA). Retrieved from <u>http://nifa.usda.gov/press-release/usdaannounces-nearly-18-million-train-educate-nextgeneration-farmers-and-ranchers</u>

- Holmes, S. M. (2013). Fresh fruit, broken bodies: Migrant farmvorkers in the United States. Berkeley: University of California Press.
- Howard, P. H. (2016). *Concentration and power in the food* system: Who controls what we eat? London: Bloomsbury.
- Ikerd, J. (2013). Running out of land for food. Journal of Agriculture, Food Systems, and Community Development, 4(1), 7–9.

http://dx.doi.org/10.5304/jafscd.2013.041.008

- Johnson, K. (2008). Conserving farmland in California: For what and for whom? How agricultural conservation easements can keep farmland farmed. *Sustainable Development Law & Policy*, 9(1), 45–75.
- Land for Good, n.d., "Principles: access, affordability, legacy, and stewardship," Retrieved from <u>http://newsite.landforgood.org/tl_files/v1/01%20</u> _%20Holding%20Land/hl_principles_2.pdf
- Liebman, E. (1983). California farmland: A history of large agricultural land holdings. Totowa, New Jersey: Rowman & Allanheld.
- Lyson, T. A., Stevenson, G. W., & Welsh, R. (Eds.). (2008). Food and the mid-level farm: Renewing an agriculture of the middle. Cambridge, Massachusetts: MIT Press.
- Martin, P., & Jackson-Smith, D. (2013). Immigration and farm labor in the United States (Policy brief 4). Natural Agricultural and Rural Development Policy Center. Retrieved from <u>http://www.nardep.info/uploads/</u> <u>Brief_FarmWorker.pdf</u>

- McWilliams, C. (1939). *Factories in the field: The story of migratory farm labor in California*. Berkeley: University of California Press.
- Niewolny, K. L., & Lillard, P. T. (2010). Expanding the boundaries of beginning farmer training and program development: A review of contemporary initiatives to cultivate a new generation of American farmers. *Journal of Agriculture, Food Systems, and Community Development, 1*(1), 65–88. http://dx.doi.org/10.5304/jafscd.2010.011.010
- O'Donoghue, E., Hoppe, R., Banker, D. E., Ebel, R., Fuglie, K., Korb, P.,...Sandretto, C. (2011). *The changing organization of U.S. farming* (Economic Information Bulletin No. EIB-88). Washington, D.C.: USDA ERS. Retrieved from <u>http://www.ers.usda.gov/publications/eib-</u> <u>economic-information-bulletin/eib88/report-</u> <u>summary.aspx</u>
- Overton, M. A. (2014). Growing new farmers: A survey of farm incubator programs in the United States (Master's thesis). Retrieved from ProQuest (Document no. 1625772015). <u>http://search.proquest.com/</u> <u>docview/1625772015/abstract</u>
- Parsons, R., Ruhf, K., Stevenson, G. W., Baker, J., Bell, M., Epley, E., ... Keller, J. (2010). Research report and recommendations from the FarmLASTS Project. Burlington: University of Vermont. Retrieved from <u>http://www.uvm.edu/farmlasts</u>
- Perrow, C. (1999). Normal accidents: Living with high-risk technologies. Princeton, New Jersey: Princeton University Press.
- Ribot, J. C., & Peluso, N. L. (2003). A theory of access. *Rural Sociology*, *68*(2), 153–181. <u>http://dx.doi.org/</u> <u>10.1111/j.1549-0831.2003.tb00133.x</u>
- Ross, L. (2014). Down on the farm: Wall Street: America's new farmer. Oakland, California: The Oakland Institute. Retrieved from <u>http://www.oakland</u> <u>institute.org/sites/oaklandinstitute.org/files/OI</u> <u>Report Down on the Farm.pdf</u>
- Ruhf, K. Z. (2001). Northeast new farmers: Opportunities for policy development. Belchertown, Massachusetts: New England Small Farm Institute. Retrieved from <u>http://www.smallfarm.org/uploads/uploads/</u> <u>Files/Policy_Background_Paper.pdf</u>
- Ruhf, K. Z. (2013). Access to farmland: A systems change perspective. Journal of Agriculture, Food Systems, and Community Development, 4(1), 51–60. <u>http://dx.doi.org/10.5304/jafscd.2013.041.006</u>

- Salvatore, A. L., Castorina, R., Camacho, J., Morga, N., López, J., Nishioka, M., ... Bradman, A. (2015). Home-based community health worker intervention to reduce pesticide exposures to farmworkers' children: A randomized-controlled trial. *Journal of Exposure Science and Environmental Epidemiology, 25*, 608–615. <u>http://dx.doi.org/10.1038/jes.2015.39</u>
- Schlosser, E. (1995, November). In the strawberry fields. *The Atlantic*. Retrieved from <u>http://www.theatlantic.com/magazine/archive/</u> <u>1995/11/in-the-strawberry-fields/305754/</u>
- Sureshwaran, S., & Ritchie, S. (2011). U.S. farm bill resources and programs for beginning farmers. *Choices, 26*(2). <u>http://ageconsearch.umn.edu/</u> <u>bitstream/109476/2/cmsarticle_34.pdf</u>
- Taylor, P. S., & Vasey, T. (1936). Historical background of California farm labor. Rural Sociology, 1(3), 281–295.
- U.S. Department of Agriculture [USDA]. (2013). Farms, land in farms, and livestock operations 2012 summary. Retrieved from http://usda.mannlib.cornell.edu/ MannUsda/viewDocumentInfo.do?documentID= 1259
- USDA National Agriculture Statistics Service [USDA NASS] (n.d.). 2014 Tenure, Ownership, and Transition of Agricultural Land (TOTAL). Retrieved from http://www.agcensus.usda.gov/Publications/ 2012/Online Resources/TOTAL/index.php
- USDA NASS. (2014). 2012 Census of Agriculture Highlights (ACH12-11). Retrieved from <u>http://www.agcensus.usda.gov/Publications/2012</u> /Online Resources/Highlights/Hispanic Farmers /Highlights Hispanic Farmers.pdf
- Walker, R. A. (2001). California's golden road to riches: Natural resources and regional capitalism, 1848– 1940. Annals of the American Association of Geographers, 91(1), 167–199. <u>http://dx.doi.org/10.1111/0004-5608.00238</u>
- Wells, M. J. (1996). Strawberry fields: politics, class, and work in California agriculture. Ithaca, New York: Cornell University Press.
- Zeigler, K. R. (2000). Who will teach our farmers: Learning the value of mentor programs from state and private programs. *Drake Journal of Agricultural Law*, 5, 279–303. Retrieved from the National Agricultural Law Center website:

http://www.nationalaglawcenter.org/wpcontent/uploads/2014/01/zeigler_teach.pdf