

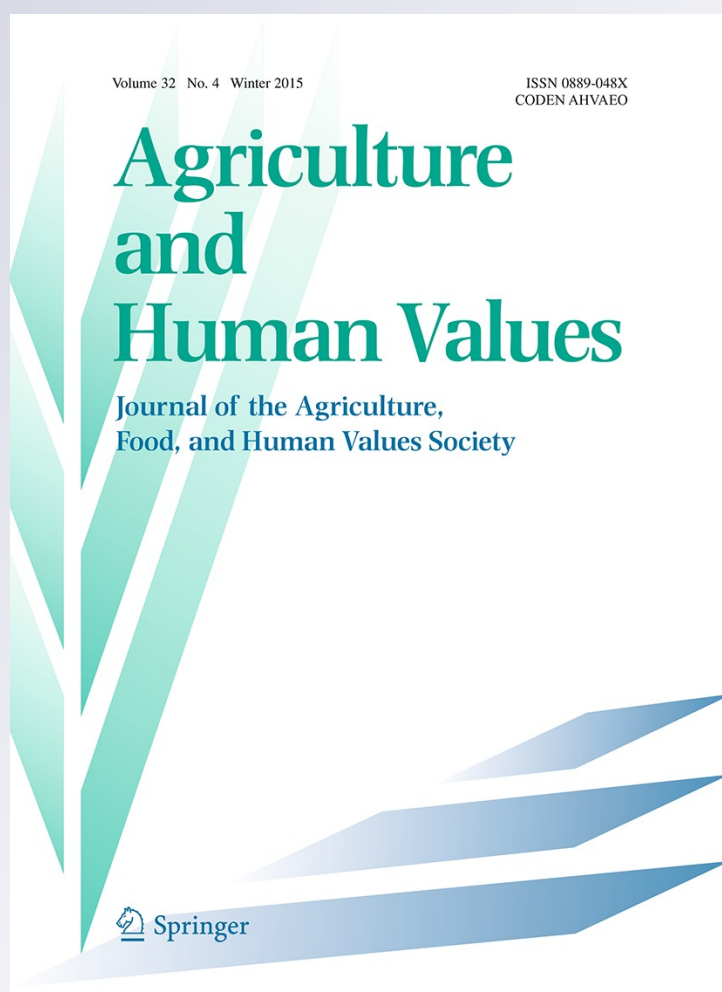
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# Farm size and job quality: mixed-methods studies of hired farm work in California and Wisconsin

Jill Lindsey Harrison · Christy Getz

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**Abstract** Agrifood scholars have long investigated the relationship between farm size and a wide variety of social and ecological outcomes. Yet neither this scholarship nor the extensive research on farmworkers has addressed the relationship between farm size and job quality for hired workers. Moreover, although this question has not been systematically investigated, many advocates, popular food writers, and documentaries appear to have the answer—portraying precarious work as common on large farms and nonexistent on small farms. In this paper, we take on this question by describing and explaining the relationship between farm size and job quality for hired farm workers. To do so, we draw on data from two independently conducted, mixed-methods case studies—organic fruit and vegetable production in California, and dairy farming in Wisconsin—each of which offers a different set of insights into the farm size-job quality relationship. In both cases, larger farms fared better than or no worse than their smaller-scale counterparts for most job quality metrics investigated, though many of the advantages of working on large farms accrue disproportionately to white, U.S.-born workers. We explain that these patterns stem from economies of scale, industrialization, firm size itself, the dominant class identities and aspirations of farmers and their

peers, as well as farmers' and immigrant workers' fears of immigration enforcement.

**Keywords** Farm size · Firm size · Job quality · Agriculture · Farm workers

## Introduction

Agrifood scholars have long investigated the relationship between farm size and a wide variety of outcomes, including community wellbeing, air and water pollution, and farmer life satisfaction (for reviews, see Carolan 2012; Lobao and Meyer 2001). Yet neither this scholarship nor the extensive research on farmworkers has addressed the relationship between farm size and job quality for hired workers. That is, scholars who are well positioned to study the farm size-job quality relationship have not yet done so.

This gap in the scholarship merits investigation for numerous reasons. In the United States alone, farms employ over two million workers, and farm jobs have long been marked by poor quality in terms of their physically arduous and hazardous nature, low wages, few fringe benefits, and low job security. Scholars have extensively investigated the firm size-job quality relationship in other industries to identify the roots of such precarious employment. Those studies have found firm size to be positively correlated with wages, nonwage benefits, opportunity for promotion, formalized management procedures (for communication, training, raises, promotion, and grievance resolution), equal opportunity policies, childcare assistance, extra-statutory maternity and paternity leave, and flexible working time arrangements (Hollister 2004; Kalleberg and Van Buren 1996; Kersley et al. 2006; Marsden et al. 2001; Wilkinson 1999). Complicating the

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picture, some studies have found that small firms are less likely to use contingent labor (Kalleberg and Schmidt 1996) and are more likely to have jobs with higher “intrinsic” rewards such as autonomy, more harmonious working relations, better communication, more flexibility, and lower levels of conflict (Kalleberg and Van Buren 1996; Schumacher 1973; Wallace and Kay 2009). However, scholars have not studied these questions in an agricultural context. Given that natural forces dictate and constrain agricultural production in ways that other industries do not experience, the conditions of farm work cannot be assumed to mirror those of other sectors.

Additionally, although the relationship between farm size and job quality for hired workers has not been studied, many actors seem to believe that only larger-scale farms deserve critical interrogation in terms of their labor relations. Advocates, popular food writers, and documentaries often address hired labor issues in polarized terms—contrasting the honorable labor of “family farms” with the exploited labor of “factory farms”, or only criticizing the labor relations on large-scale farms. For example, the Land Stewardship Project’s recent concern with wage theft was directed exclusively at large-scale “factory farms” (Nopar 2013). By empirically specifying the relationship between farm size and job quality, we hope to inform the efforts of those concerned about precarious employment and worker livelihoods in agriculture. Of course, many factors shape job quality for hired workers. Notable examples include certain labor policies, labor market conditions, racist anti-immigrant sentiment, and the exploitative dynamics of capitalism (Daniel 1981; Friedland et al. 1981; Galarza 1964; Guthman 2004; Majka and Majka 1982; McWilliams 1999; Mitchell 1996; Thomas 1985; Wells 1996). In this paper, we focus on the role of *farm size* in shaping job quality—both because it has not been investigated and because it is widely assumed to be relevant.

In this paper, we ask: What is the relationship between farm size and job quality for hired farm workers? What explains these patterns? To answer these questions, we draw on data from two independently conducted, mixed-methods case studies—organic fruit and vegetable production in California, and dairy farming in Wisconsin—each of which offers a different set of insights into the farm size-job quality relationship. This is not a comparative analysis, as each study was designed and conducted independently of the other, used different methods, and collected different data; each author learned about the other’s project and the ability of both datasets to speak to debates about farm size and job quality after completing data collection. We bring the two datasets together here because having two cases from two different commodity sectors allows us to test the farm size-job quality relationship in a broader set of contexts than one case study would allow.

The farms in our studies reflect patterns consistent with other industries. In both cases, larger farms fared better than or no worse than their smaller-scale counterparts in terms of most job quality metrics investigated, with a few notable exceptions. Additionally, many of the advantages of working on large farms accrue disproportionately to white, U.S.-born workers. As we explain, these patterns stem from a complex array of political economic and cultural factors—economies of scale, industrialization, firm size itself, the dominant class identities and aspirations of farmers and their kin and peers, as well as farmers’ and workers’ fears of immigration policing. In addition to filling a notable gap in the scholarship, these findings provide valuable empirical data for those striving to improve job quality for hired farm workers.

### Scholarship on farm size implications and hired farm workers

Scholars of agriculture and rural life have long documented and described patterns of changing farm structure (Hefernan 1998; Lobao 1990; Thomas et al. 1996) and investigated its implications for a wide variety of outcomes. Motivated by concerns about the declining number of farms and increasing average farm size, Walter Goldschmidt’s seminal and controversial 1947 study investigated the implications of farm size for community wellbeing through a comparison of two towns in California’s Central Valley: Arvin, surrounded by large farms, and Dinuba, surrounded by smaller farms. Goldschmidt emphasized that Arvin had a higher ratio of hired farm workers to farm owners and had higher rates of absentee ownership that siphoned profits out of the local community. He thus argued that increases in farm size contributed to rural population instability, a decline in rural economic activity, greater economic and political inequality, and lower participation in community institutions (Goldschmidt 1978).

A substantial literature has followed in Goldschmidt’s footsteps (for reviews and overviews, see Carolan 2012, pp. 94–106; Lobao and Meyer 2001; Lobao and Stofferahn 2008; Lyson and Welsh 2005; and Welsh 2009). In addition to addressing the impact of farm size on community wellbeing, rural sociologists have also studied the relationships between farm size and farm household mental health (see Lobao and Meyer 2001), the gendered division of farm labor (see Lobao and Meyer 2001), a farmer’s propensity to diversify (Barbieri et al. 2008), adoption of ecological farming practices (Buttel and Larson 1979; Hinrichs and Welsh 2003; Parker 2013), adoption of new technologies (Buttel et al. 1990), pesticide use (Bellamy 2011; Goldberger et al. 2011), and farm owner life satisfaction (Lloyd et al. 2007). Scholars have emphasized that

changes in farm size are driven by many factors, including the concentration and growing power of off-farm agribusinesses, farm and food policies, labor and immigration policies, scientific research priorities, and dominant norms such as the industrial ideal. Together these factors have diminished farmers' abilities to set the terms of trade, compelled farmers to expand their operations or exit the system entirely, and otherwise exacerbated inequalities of wealth and decision-making power throughout the food system (Bonanno et al. 1994; Busch and Lacy 1983; Buttel 2001; Carolan 2012; Goodman et al. 1987; Heffernan 1998).

Agrifood studies has an equally long and rich history of scholarship on hired farm workers, starting with studies from the 1930s and 1940s by Louis J. Ducoff, Josiah C. Folsom, Margaret Jarmon Hagood, Olaf F. Larson, Carey McWilliams, Arthur Raper, Paul Taylor, Tom Vasey, and others (see Larson et al. 1992; Larson and Zimmerman 2003; McWilliams 1999; Taylor 1983). Since that time, empirical studies from across the United States, Canada, and other countries have documented a litany of injustices experienced by hired farm workers: low wages, hazardous workplaces, polluted communities, occupational segregation, child labor, racist hiring and firing practices, exclusions from labor laws, exploitation and abuse by farm labor contractors and crew leaders, neglect by regulatory officials, repression of farm labor unionization efforts, health disparities and barriers to health care, and food insecurity, among others (Besky 2013; Bonanno and Barbosa Cavalcanti 2012; Brown and Getz 2011; Daniel 1981; Friedland and Nelkin 1971; Friedland et al. 1981; Galarza 1964; Gray 2013; Harrison 2011; Harrison and Lloyd 2012, 2013; Holmes 2013; Jenkins 1985; Majka and Majka 1982; Maldonado 2009; Mitchell 1996; Mize and Swords 2010; Moses 1993; Sachs et al. 2014; Slesinger and Pfeffer 1992; Thomas 1985; Wells 1996). Nevertheless, these farm labor studies provide few insights into whether job quality varies by farm size. Instead, most studies of hired farm workers have focused on large-scale, industrialized farming operations. Thirty years ago, Buttel (1983, p. 101) noted that "the full-time agricultural labor force in nonindustrial farming settings has been almost totally ignored" by sociologists of agriculture, and things have changed little since that time. In other words, the scholars who are in the best position to study the relationship between farm size and job quality have not done so.

The few exceptions that exist indicate that smaller-scale operations deserve an interrogation as critical as their larger-scale counterparts in terms of their labor practices. In a rare and early comparison, Ducoff (1949, p. 286) noted that, in 1945, workers on larger farms in nearly all regions of the United States earned higher hourly wages, worked slightly fewer hours per week, and had slightly longer

weekends. Goldschmidt (1978, pp. 332, 337) found that annual household incomes of hired farm workers were *the same* in Arvin and Dinuba, the two communities he studied. Indeed, he attributed many of the differences in community wellbeing between the two towns not to the notion that large farms offered worse jobs to hired workers but to the fact that Arvin, with its larger farms, had a higher percentage of hired farm workers. More recently, Fogelman et al. (1999, p. 32) found that farm size had no statistically significant effect on employees' average total compensation on New York dairy farms. Pilgeram (2011, p. 5) acknowledges that the interns and apprentices commonly hired on small-scale organic farms are typically poorly paid. Getz et al. (2008) and Shreck et al. (2006) show that small-scale farmers can be just as hostile to proposed industry-wide worker protections as their larger-scale counterparts. Additionally, Alkon and McCullen (2011) and Pilgeram (2012) raise troubling concerns about the racialized divisions of labor among farm employees at farmers markets, venues dominated by smaller-scale growers; they note that white interns are given the publicly visible sales positions while Latino workers do the hidden, more arduous work (see also Guthman 2004, p. 207n14).

These tangential observations notwithstanding, we are not aware of any systematic empirical research on the relationship between farm size and job quality in contemporary agriculture. In this paper, we address this gap directly by describing and explaining the relationship between farm size and job quality for hired farm workers in two independently conducted case studies: organic fruit and vegetable production in California, and dairy farming in Wisconsin. In the pages that follow, we first review our cases and methods. We then present our descriptive findings documenting the patterns between farm size and job quality in our two cases. In the subsequent section, we explain those patterns as a function of five key factors. We conclude by summarizing our findings, highlighting their significance for scholars and advocates alike, and offering recommendations for future research.

## Cases and methods

In this paper, we ask: What is the relationship between farm size and job quality for hired farm workers? What explains these patterns? To address these questions, we showcase selected findings from two independently conducted research projects—a study of work on organic fruit and vegetable farms in California, and another of work on dairy farms in Wisconsin. In each case, a case study approach allowed us to collect multiple forms of data (including labor-intensive, in-depth interview data) and control for external confounding variables present in multi-

industry studies spanning large geographic areas (e.g., labor market conditions, government policies, union presence, and product market conditions). Each case was designed and conducted independently of the other, and the two studies used different methods and collected data on different sets of job quality (though all measures of job quality are generally consistent with those of the extant literature; e.g., Kalleberg 2011, p. 9). Although the lack of parallel data makes us unable to systemically compare the two cases, we purposively bring together these studies from two very different commodity sectors in two very different regional settings to more comprehensively investigate the relationship between farm size and job quality. By using two case studies we are able to identify patterns in a wider range of contexts than just one case would afford.

California is the U.S. agricultural powerhouse, producing half of the nation's high-value fresh fruits and vegetables. Most jobs on California organic farms are seasonal, temporary positions, and farmworkers face ergonomic and mechanical hazards (Getz et al. 2008; Moses 1993). Although organic farms differ from their conventional counterparts in terms of chemical use and other material conditions, their labor relations are similar. Over 70 % of California's organic farms hire workers (USDA 2010), and anecdotal evidence suggests that they mirror the rest of California's estimated 800,000 farm workers. Of that total agricultural workforce, 95 % are foreign-born, primarily from Mexico, and anywhere from 50 to 90 % lack legal authorization (US Department of Labor 2001–2002).

In contrast to California's industrial agricultural history, Wisconsin's farming sector has long been comprised mostly of small-scale dairy farms (DuPuis 2002; Gilbert and Akor 1988). Most dairy farms today are still quite small, and, as of 2006, 77 % rely solely on family labor (Lloyd et al. 2006). However, numerous factors over the past few decades have compelled structural changes in the industry such that hired workers are an increasingly common part of dairy farming. Most dairy jobs are year-round, full-time positions, which can be a boon for workers. However, most of those jobs are far from ideal. *The Fiscal Times* magazine recently ranked the entry-level dairy job of milking as one of the "10 Dirty Jobs that Nobody Wants" in the U.S. because of the low wages, late shifts, extreme temperatures, and repeated exposure to manure (Yoder 2011). Wisconsin dairy farmers in just the past 15 years have started to hire immigrants from Mexico and Central America, who now constitute 40 % of the state's dairy farm workforce Harrison and Lloyd (2012, 2013). Evidence suggests that immigrant dairy workers mirror the broader immigrant farmworker population in the U.S. in terms of nationality and legal status (Harrison and Lloyd 2012, 2013).

Farmers within both research sites share similar institutional and cultural contexts. Labor unions do not have a significant presence in either of the sectors we studied; only one of our research participants mentioned having a unionized workforce. Both California and Wisconsin are characterized by strong levels of public concern for farmer livelihoods but comparatively little public concern for hired farmworkers (Allen et al. 2003; Getz et al. 2008; Guthman 2004; Shreck et al. 2006). With the exception of those farmers selling directly to consumers in niche outlets, most produce undifferentiated commodities and thus share product market conditions. They all face increasing costs of production due to rising land values and consolidation among input manufacturers, as well as declining commodity prices due to near-monopolistic consolidation among food processors and retailers (Carolan 2012; Guthman 2004; Howard 2009a, b; USDA 2004). Dairy farmers have long received federal price supports, but those subsidies are often set below the cost of production. University researchers and extension agents, farmer organizations, bankers, and policymakers have long argued that the only sure way for farmers to survive these difficult circumstances is by expanding and industrializing their operations or exiting the system entirely (Fitzgerald 2003; Lobao and Meyer 2001). Accordingly, farmers in both cases are industrializing in ways similar to other agricultural and non-agricultural industries: expanding and intensifying production, creating a division of labor, and extracting as much value as possible from labor, land, and animals (Barham et al. 2005; Guthman 2004).

On California's organic farms, industrialization varies with the commodities grown but variously includes expanding acreage; intensifying production through continuous cash-cropping and fertilization; mechanization for preparing, planting, cultivating, and harvesting fields; rationalizing the labor process; and hiring non-family labor. In dairying, industrialization includes expanding the farm's herd size; regularly upgrading the barns, milking parlors, tractors, and other equipment with the latest technologies; confining the cows indoors and feeding them scientifically formulated feed rations tailored to each animal's life stage rather than managing them on pasture; milking the cows three times per day in machine-assisted milking parlors (compared to historical practice of twice per day, in tie-stall or stanchion barns); dividing work tasks into specialized positions; hiring non-family labor; and, on some farms, using synthetic bovine growth hormone (Barham et al. 2005). The relationship between industrialization and farm expansion is neither a necessary nor an even one; rather, owners of all size farms variously industrialize their operations, and often owners will simultaneously expand their operation when industrializing

in one or more ways to maximize the return on their investment.

#### California data

Our California data derive from a collaborative study of labor practices of California's organic growers conducted by the University of California at Berkeley and California Institute for Rural Studies, in which one of the authors collaborated. The growers surveyed were drawn from a publicly available 2006 list of 2,176 organic farms registered with the California Department of Food and Agriculture's Organic Program. Growers who reported hiring at least one worker and who had at least some percentage of land in organic production were included in the sample. We have not included farms that do not have workers, as our interest is in the terms and conditions of work for hired workers. Growers were stratified by commodity sector, and surveys were administered to a random sample of growers within each sector. Sectors known to be labor-intensive were oversampled. We contacted 1,801 growers and completed surveys with 300 of them, for a response rate of 17 %. Given that the sample represents 14 % of all organic growers registered in California in 2006, it is one of the most extensive surveys ever to specifically address labor issues in organic agriculture. In this paper, we showcase the findings from 220 surveys completed with growers who employed workers directly (although they may have also hired contract workers through farm labor contractors at key points in the growing season). Surveys included structured questions about growers' farms and their labor management practices (including wages, benefits, and management policies) and open-ended questions asking participants for qualitative comments on each major topic area. Each survey was administered by telephone by a graduate student researcher, lasted approximately thirty minutes, and was conducted in Spanish or English, per the respondent's preference. Responses were transcribed by the administrator; telephone-administered surveys were not audio recorded. Respondents not wishing to complete the survey over the telephone were offered other options; six respondents chose to complete a paper copy of the survey, while 20 chose to respond using an Internet-based survey program.

To categorize the California farms, we follow the industry norm by adopting USDA's definition of "small" farms as those with annual sales <\$250,000 and "large" farms as those with annual sales >\$250,000 (Volkmer 1998). Although more than half of the USDA-designated "small" farms in the United States are "residential/lifestyle" or "retirement" farms with little or no income and no hired labor (Hoppe and Banker 2010, p. 8), fully 40 % of hired workers are employed on "small" farms, as

defined by the USDA (2007, p. 4). We recognize that sales is an imperfect size metric in a study of multiple commodity sectors, as some commodities are more valuable and more costly to produce than others. To control for this variability, we purposively sampled for a wide range of crops within each farm size category. We do not use two other potential farm size measures—acreage and size of workforce—because widespread variation across commodity types and cropping patterns render them both problematic for comparison purposes, due to differing levels of land and intensiveness of labor needed for production. In our survey, growers reported wide variation in both acreage (0.25–16,800 acres) and the percentage of total production costs attributed to labor (4–95 %). Defining farm size in terms of number of employees is also problematic in agriculture because most farm jobs are temporary, seasonal positions.

#### Wisconsin data

Our Wisconsin data derive from a study of work on Wisconsin dairy farms that was conducted by one of the authors and her research team from 2007 to 2011. With the help of county extension agents, we constructed a list of all dairy farms large enough to have any hired workers (generally more than 100 cows). We stratified that list by region and farm size and randomly selected farmers from within each farm size category for each region. After an introductory phone call to explain the research project and solicit participation, a survey was administered in person by a bilingual, U.S.-born male research associate with personal experience in dairy farming. Participants included 83 farmers and all of their hired employees available at the time of the visit (103 U.S.-born workers and 270 immigrant workers). Survey questions addressed wages and nonwage benefits, opportunities for promotion, management practices, the organization of work and workers in the workplace, background and demographic information about hired workers, and workers' job aspirations.

Per industry norms, we define dairy farm size according to the number of animals; farmers, university extension agents, researchers, industry organizations, and others characterize dairy farm size in terms of the number of cows. We characterize the dairy farms in our study as small (1–300 cows), medium (301–600 cows), and large (>600 cows), which correspond roughly to local ideas of farm size for dairy farms large enough to have any hired workers. We have not included farms that do not have workers, as our interest is in the terms and conditions of work for hired workers. We do not define farm size by the number of employees in this sector because immediate kin conduct a significant but highly variable portion of the work on most dairy farms (anywhere from approximately 10–80 %), and

our survey did not collect data on family members' labor. As a result, categorizing farms by the number of hired, nonfamily employees would inconsistently represent the size of the operations. We also do not define dairy farm size by sales because we did not collect that data.

Our Wisconsin study also includes in-depth interviews with workers and employers, which provide a deeper level of insight into the patterns revealed by the structured surveys. After the survey was conducted, members of the research team recruited a subset ( $n = 12$ ) of the surveyed immigrant workers to participate in private, loosely structured, in-depth interviews in which workers were asked about their migration histories, aspirations, concerns, and frustrations at work and otherwise. To select the interview participants, we purposively sampled for variation in gender, farm size, and position on the farm; the sample was designed to capture a wider variety of perspectives than might emerge in a 'representative' sample. We interviewed five women and seven men representing a range of positions held on dairy farms (six milkers, two managers, and four feeders or other positions situated between milker and manager in the dairy farm workplace hierarchy). Two bilingual, white, female graduate student interviewers conducted these interviews with the workers in Spanish at a private setting of their choice, usually their homes. Each interview lasted one to two hours, and most consented to audio recordings. The interviewers recorded their observations and transcribed and translated all of the interviews.

Finally, members of the research team recruited a subset of the surveyed employers ( $n = 20$ ) to participate in private, loosely structured, in-depth interviews in which the employers were asked to describe and explain the organization of work and workers on their farms. We also asked them to describe their perceptions of and concerns about U.S.-born and immigrant workers, and about what they perceive as relevant differences among workers. We purposively sampled for variation in two factors that seemed likely to influence employers' labor management practices: farm size (our sample included seven from "small" farms with fewer than 300 cows; five from "medium" farms with 301–900 cows; and eight from "large" farms with more than 900 cows), and employee demographics (our sample included 3 with only U.S.-born employees; 5 with a mix of immigrant and U.S.-born employees; and 12 with only immigrant employees). Consistent with the broader population of Wisconsin dairy farmers, most (16) of the 20 farmers interviewed were male; all were identified as white; and most (19) were farm owners. All were from separate farms (i.e., none were co-owners). A white, female researcher with personal experience in dairy farming conducted the interviews. Each interview took place at the participant's home or farm office, lasted one to two hours, and was recorded with the participant's consent. The

interviewer recorded her observations and transcribed all of the interviews.<sup>1</sup>

### Data analysis

Within each case, we analyze the survey and observational data to describe how job quality varies by farm size. We then analyze our quantitative and qualitative data to identify the factors driving the observed patterns between farm size and job quality, augmenting our original data with secondary data where appropriate. We systematically coded our data using a shared coding scheme. Most of our coding themes emerged from the literature and original survey data that had prompted our interview questions (e.g., the relationship between farm size and key measures of job quality, such as entry-level wages; variations in those rewards by race and nativity; and farmers' explanations for the influence of farm size on job quality metrics). Several themes emerged unexpectedly in the interviews and open-ended survey responses and without solicitation (e.g., the relevance of employers' class identities to their views on job rewards; and the value of shift flexibility to workers). Accordingly, drawing on the principles of grounded theory (Bryant and Charmaz 2007), we also coded for these emergent themes. We also identified the cases that did not seem to fit our emerging theories, used analytic induction to explain those deviant cases, and identify the deviant patterns we were unable to explain. Our qualitative data provide rich analytical insights, especially regarding how and why farm size influences employers' management and compensation decisions, and the meanings they attach to key phenomena like farm size. These data collection methods give participants the opportunity to define the issues in their own terms and facilitate rapport between researcher and participant, thus increasing participants' comfort in discussing controversial issues. Qualitative methods thus can help to generate novel explanatory frameworks for quantitatively documented patterns.

The fact that the two cases have different research designs prevents us from doing a full comparative analysis of the two cases; that said, our analysis does include comparative analysis of the few job quality metrics for which comparable data are available. The Wisconsin case receives more attention in this article both because the Wisconsin study included a wider range of data, and because that extra data stem from interviews and ethnographic observation, which cannot be reported as concisely as survey data.

<sup>1</sup> All uncited quotations come from our surveys and interviews.



**Descriptive findings: farm size and job quality in two cases**

Our descriptive data reveal two overarching patterns. First, despite the differences between these two commodity sectors, large farms in both cases fared better than or no worse than smaller farms for most job quality metrics studied, with a few notable exceptions. Second, the Wisconsin data indicate that U.S.-born, white workers have disproportionate access to many of those advantages of working on large farms, relative to their immigrant counterparts.

California organic farms

We summarize the descriptive findings from the California employer survey in Table 1, which shows, for each job quality metric, the averages for small farms and large farms as well as the result of statistical significance tests. Although small farms reported higher average entry-level wages, differences in top wages were negligible. Larger farms were more likely to report offering nonwage benefits, including health insurance, paid time off, and paid retirement plan.

Large farms are significantly more likely to report that they use farm labor contractors (FLCs) than are smaller farms (see Table 1). This indicates a greater likelihood of abusive and exploitative worker treatment on large farms, given the evidence that FLCs are more likely than farmers to exploit workers (Verduzco 2010). Many farmworker advocates note the significant increase in the use of FLCs

over recent years as way for farmers to distance themselves for responsibility for working conditions and as one of the primary causes of the deterioration of working conditions on California’s farms. One farmer in the California survey noted how happy he was to find an FLC that “treated the workers well”, implying how uncommon that is.

As detailed in Table 1, large farms were more likely to report that they have formal systems in place for supervision and management, including an employee manual, discipline and termination practices, formal grievance procedures, formal job descriptions, employment contracts, and policies in Spanish. Additionally, large farms are significantly more likely than small farms to report that they provide supervisors with specific guidelines or training to ensure formal respectful of farmworkers. When asked about communication mechanisms in the workplace, smaller growers reported informal mechanisms such as more one-on-one contact and working side-by-side with employees. Formal management practices help protect workers from ad hoc disciplinary measures and discrimination in the workplace, have been shown to be highly valued to farmworkers and other workers, and are associated with lower levels of gender segregation (Reskin and McBrier 2000; Strohlic and Hamerschlag 2006; Strohlic et al. 2009).

When asked to identify the strategies they use to reduce accidents and injuries, smaller-scale growers were more likely to claim that they make efforts to limit handweeding or stoop labor to a set number of hours each day and pay by the hour to avoid speed-related accidents associated with piece work (see Table 1).

**Table 1** Job quality on small farms (<\$250,000 annual sales) versus large farms (>\$250,000 annual sales) (California study)

Job quality metric	Small farms	N	Large farms	N	Sig (p value)
Mean entry hourly wage	\$8.39	121	\$7.70	54	.001***
Mean top hourly wage	\$10.50	129	\$10.67	60	.689
Health insurance	26 %	148	57 %	67	.000***
Paid time off	51 %	148	72 %	67	.004**
Retirement	13 %	146	27 %	67	.013*
Use farm labor contractors	32 %	149	60 %	67	.000***
Employee manual	35 %	144	68 %	65	.000***
Discipline and termination policies	31 %	144	63 %	65	.000***
Advancement and promotion policies	14 %	144	17 %	65	.583
Formal grievance procedures	26 %	144	49 %	65	.001***
Formal job descriptions	22 %	144	38 %	65	.015*
Employment contracts	15 %	144	29 %	65	.013*
Policies in Spanish	32 %	149	60 %	67	.001***
Respectful treatment training (formal)	29 %	115	52 %	56	.003**
Informal communication	69 %	149	31 %	67	.000***
Limit handweeding	39 %	142	25 %	65	.038*
Reduce repetitive motion	56 %	142	49 %	65	.396
Pay hourly wages to reduce injuries	42 %	142	23 %	65	.008**

\*  $p < .05$ ; \*\*  $p < .01$ ;  
 \*\*\*  $p < .001$ ;  $t$  test used to test for statistically significant difference of means

**Table 2** Job quality on small (0–300 cows), medium (301–600 cows), and large (601+ cows) dairy farms (Wisconsin study)

Job quality metric	Small farms	Medium farms	Large farms	Sig ( <i>p</i> value)
Mean entry hourly wage	\$8.32	\$8.21	\$8.46	.618
Health insurance	28 %	41 %	58 %	.089
Intrinsic rewards of entry-level jobs	Low	Low	Low	
Opportunities for promotion	Low	Medium	High	
Flexibility in scheduling	Low	Medium	High	
% workers not in split or rotating shifts	49 %	71 %	85 %	.000***
Ergonomically improved workspaces	Low	Medium	High	
N	18	29	36	

\*  $p < .05$ ; \*\*  $p < .01$ ;  
\*\*\*  $p < .001$ ; one-way  
ANOVA used to test for  
statistically significant  
difference of means

### Wisconsin dairy farms

We summarize the descriptive findings from the Wisconsin study in Table 2, which shows, for each job quality metric, the averages for small farms, medium farms, and large farms. It also lists, where appropriate, the results of statistical significance tests. Employer-reported entry-level hourly wages were highest on large dairy farms and lowest on medium-size farms, although the differences are not statistically significant. Large farms were the most likely to report offering health insurance, while small farms were the least likely to do so.

Farm size has no effect on the “intrinsically” rewarding nature of entry-level jobs on dairy farms—the degree to which the entry-level jobs are interesting and allow workers to exercise autonomy and creativity (see Wallace and Kay 2009). When dairy farmers need to hire workers, they hire one or more employees (“milkers”) to milk the cows so the owners can do the other farm tasks.<sup>2</sup> Workers lamented that milking tends to be monotonous, dirty, and physically arduous, and entails significant risks of ergonomic strain and injury from large animals. Irrespective of farm size, the farmers we interviewed acknowledged these drawbacks and explained that they actively select for workers who will comply with those terms. As one small-scale farmer said, “You have to be like robot milkers.”

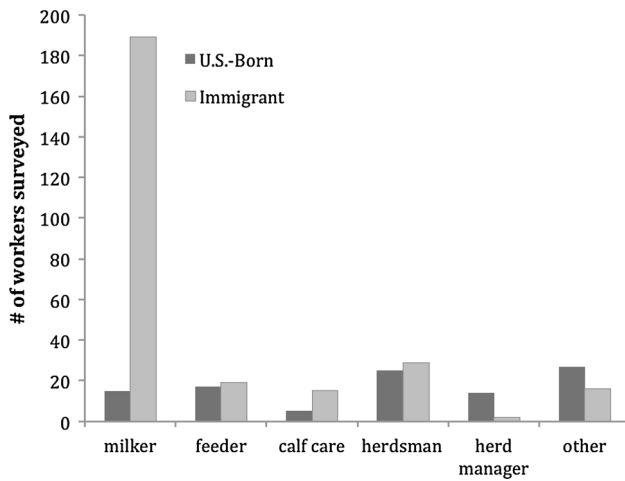
Workers’ opportunities for promotion appear to increase with farm size. Data from our survey, interviews, and observations at industry events indicate that small dairy farms tend to hire only milkers, as dairy farm owners and their kin do the non-milking tasks themselves (see also Barham et al. 2005, p. 5). In contrast, owners and kin cannot complete all of the non-milking tasks on medium and large dairy farms on their own. In addition to hiring milkers, these larger operations hire workers to help complete the complex array of specialized, advanced tasks

on the farm: negotiating with milk processors and input suppliers; monitoring feed rations, breeding, and calf care for the herd; and managing cropland, feed purchases, and employees. The non-milking positions involve a greater variety of tasks, higher pay, more decision-making authority, and more autonomy than the milking positions, as well as shifts that coincide with those of the traditional workday. Workers clearly value this opportunity for promotion; in our survey, nearly every worker reported that they want to learn new skills and advance in the workplace. Our data suggest that this opportunity for promotion is disproportionately available to U.S.-born, white workers, as most white, U.S.-born workers are in the advanced positions. In contrast, the overwhelming majority of the immigrant workers we surveyed are located in entry-level milking positions (see Fig. 1). This pattern of occupational segregation by nativity and race has been widely documented throughout U.S. agriculture (Tomaskovic-Devey et al. 2006).

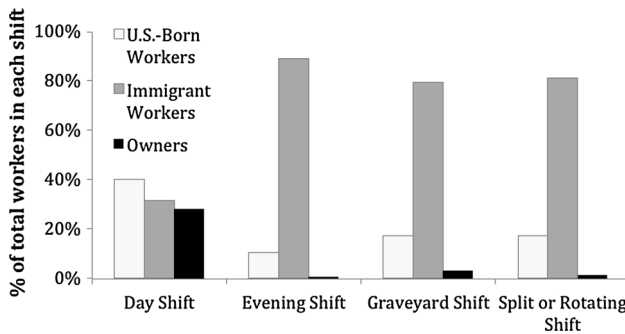
Workers on larger dairy farms also tend to have more flexibility in adjusting their work schedule than do workers on small dairy farms. Because medium and large operations have multiple employees who do the same task (especially in the entry-level milking positions), those individuals have the opportunity to trade shifts or otherwise substitute for each other in cases of illness or other events. This measure of job quality increases with farm size, as larger farms have larger milking crews and thus more people who can fill in for each other when needed.

Shift structures also improve with farm size. Our survey data indicate that the percentage of workers *not* consigned to the less-desired “split or rotating shifts” increases with farm size (see Table 2). *Split* shift arrangements are most likely on small dairy farms, which are more likely than their larger-scale counterparts to follow the traditional practice of milking their cows twice per day and scheduling the milkings 12 h apart to maximize each animal’s productivity (Barham et al. 2005, p. 4). Under this schedule, milkers work for approximately 5 h in the morning and then again in the evening. For example, one worker we interviewed works daily from 4:00 to 9:00 am and 4:00 to

<sup>2</sup> On large farms, this category includes “milkers,” “lead milkers,” and “pushers,” who work together as a team to bring cows to the parlor, get them milked, and clean the manure from the parlor. For the sake of brevity, we have combined these jobs, calling them “milkers.”



**Fig. 1** Distribution of surveyed hired dairy workers in Wisconsin, by farm task and worker origin. *Note* This figure includes full-time and part-time hired employees; owners are not included



**Fig. 2** Demographic composition of each shift on Wisconsin dairy farms

9:00 pm; given the time needed to commute, bathe, eat, and take care of other responsibilities, the worker can never get more than 5 h of sleep at a time. In contrast, medium and large dairy farms tend to milk their cows three times per day, which creates three solid milking shifts of about 8 h each. Workers with a *rotating* shift do not always work a consistent shift (i.e., their schedule varies throughout the week). Presuming that workers would prefer a consistent schedule of solid shifts, even late at night, to rotating or split shifts, larger dairy farms offer better shift schedules than small dairy farms.

White, U.S.-born workers reap this advantage of working on larger dairy farms more than their immigrant counterparts. U.S.-born workers constitute the majority of hired employees on the more desired early day shift that corresponds most closely with the hours of a typical workday, in part because they are disproportionately represented in the advanced tasks that are done during those hours (see Fig. 2). In contrast, immigrant workers are clustered in the less desired evening shift (roughly 4:00 pm

to midnight), graveyard shift (roughly midnight to 8:00am), split shifts, and rotating shifts.

Finally, ergonomic issues appear to improve with dairy farm size. As noted above, larger operations offer more opportunities for promotion into jobs with a diversity of tasks. A diversity of tasks reduces the incidence of ergonomic injury for the worker. Medium and large dairy farms tend to have modern milking parlors, where milkers stand in a recessed workspace that enables them to milk the cows without bending over. Workers in small-scale dairy are more likely to milk the cows in stanchion or tie-stall barns, where milkers stand on the same level as the cows, squatting down and bending over to milk the animals (see Figs. 3, 4) (Barham et al. 2005, p. 3).

### Mechanisms at work: explaining the large farm advantage

In this section, we explain that the farm size-job quality patterns in Tables 1 and 2 stem from economies of scale, industrialization, firm size itself, dominant class identities and aspirations among farmers and their kin and peers, and employers' and workers' fears of immigration enforcement.

#### Economies of scale

As scholars have found in other contexts, some job quality measures are correlated with farm size because these aspects of job quality exhibit economies of scale. For example, group discounts on health insurance explain the higher incidence of health insurance on large-scale farms in both California and Wisconsin. Other economies of scale indirectly produce a farm size-job quality effect. For instance, larger farms secure more favorable loan interest rates, bulk discounts on inputs, and premium prices for their commodities; they thus have more financial ability to absorb the cost of offering and administering fringe benefit programs and formalized management programs.

Economies of scale sometimes benefit employees on smaller farms. Economies of scale likely explain the higher use of often-exploitative FLCs on large farms in California; using an FLC can significantly simplify labor recruitment and management for large farmers whereas small-scale farmers with a small crew can manage their workers on their own. Also, our data suggest that some small farms may offer higher entry-level wages to offset a lack of benefits to recruit better workers; bivariate correlation analysis shows that entry-level wages and provision of health insurance were negatively correlated in California ( $r[179] = -.22, p = .003$ ; see also Bitsch 2002). Our Wisconsin data also indicate a similar pattern, although the



**Fig. 3** Farmer demonstrating the stance for milking in traditional dairy farm milking parlor. Photo credit: Sarah E. Lloyd

relationship is weak and not statistically significant ( $r[82] = -.069$ ,  $p = .54$ ). Some California farmers noted that their employees had elected to receive higher wages in lieu of insurance, and many farmers in both cases emphasized that they cannot afford health insurance for themselves. Our data do not indicate whether higher wages paid by small farmers make overall compensation packages commensurate between large and small farms.

### Industrialization

Some job quality measures that correlate with farm size are a function of industrialization. Although owners of all size farms variously industrialize their operations, in many cases farmers will expand their operations when they industrialize some aspect of their farm to maximize the returns on their investment. Notably, dairy farmers often expand production when they modernize their milking parlors in ways that enable cows to be milked more expediently (Barham et al. 2005). To recoup the costs of such investments or otherwise increase their earnings, these farmers also tend to add more cows and intensify their operations by milking three times per day rather than two. Parlor modernization improves the ergonomic conditions of work for milkers, while the intensification provides a more humane shift schedule for the milkers, as discussed above.

Yet industrialization's impact on the farm size-job quality relationship is not a singular one; rather, it cuts in competing directions. Consistent with firms in other industries, larger farms tend to specialize their operations (Carolan 2012). In our California study, small farms reported an average of 4 crops and large farms an average of 3 crops. Barham et al. (2005) found that the largest Wisconsin dairy farms tended to be the most specialized. Specialization increases efficiencies but reduces employers' abilities to diversify employees' tasks throughout the day. Bivariate correlation analyses of our California data show that crop diversity is positively correlated with respondents claiming that they limit handweeding or stoop labor to a set number of hours each day ( $r[211] = .21$ ,  $p = .005$ ) and with respondents claiming that they reduce repetitive motions through diverse tasks or frequent breaks ( $r[211] = .20$ ,  $p = .006$ ). A varied mix of tasks may explain why smaller-scale farms are more likely to pay by the hour rather than piece-rate. Hourly pay is advantageous for workers, as it provides a reliable income and can allow for a more relaxed pace of work. It should also be noted that a higher diversity of crops tends to extend the growing season and thus the length of seasonal employment, a boon to workers who rely on seasonal work. Specialization is less relevant to hired dairy workers, as the greater diversity of tasks on more diversified farms (notably, growing and harvesting grain) would be conducted largely by farm

**Fig. 4** Milker in modern dairy farm milking parlor. Photo credit: Sarah E. Lloyd



owners rather than their hired employees. The variation between cases thus illustrates how the material conditions of a given industry shape the firm size-job quality relationship.

#### Expected functions of firm size

Some aspects of job quality are simply a direct, expected function of firm size. In the California case, firm size itself likely helps explain the higher rate of formalized management procedures on large farms, as the sheer size of the workforce makes ad hoc management on large farms impossible. At the same time, economies of scale make such formalization more affordable for larger-scale operations.

Larger farms also need more management staff, thereby necessarily offering more opportunities for promotion and scheduling flexibility. As shown in the Wisconsin case, small-scale farmers fill the advanced tasks with family labor and thus do not have those positions found on large farms—positions that, per industry norms, tend to receive higher wages, fringe benefits, a greater variety of tasks, and a daytime shift schedule. Additionally, larger farms have larger crews, which provide their workers with a greater flexibility in scheduling. Nearly all of the medium- and large-scale dairy farmers we interviewed celebrated the virtues of granting scheduling flexibility to their milking crews. As one large-scale dairy farmer explained, “They cover for each other. It is excellent. We’ve had really good luck with it. It is a wonderful situation. It would be rougher

if we didn’t have the 13 milkers.” In contrast, this flexibility is not an option for hired milkers on small farms, where there are typically no other employees to trade shifts with. As Kalleberg and Van Buren (1996) have argued regarding these types of functions, firm size itself is the operative variable (i.e., it is not a proxy for some other variable).

Employers and their kin and peers: class identities, aspirations, and strong ties

Our qualitative data explain that the farm size-job quality patterns we observed stem partly from farmers’ class identities and aspirations, as well as those of their kin and peers. When we asked Wisconsin dairy farmer interview participants to explain why they offer the wages and benefits that they offer, most of the small-scale farmers responded by elaborating about their own limited economic resources and claiming to be on the same economic footing as their workers. That is, they drew on their working-class *identity* and perceptions that they earn less than their workers to dismiss the importance of formal benefits and justify the low wages they pay. For example, one small-scale farmer explicitly equated his earnings with that of his workers to defend the wages he pays: “We are fortunate that we don’t have to pay time and a half.... If we had that much money to pay, I would draw a bigger salary [for myself]. My workers make as much as I do. I physically draw a salary and put it into my bank account. How much more can you pay?” Another elaborated about how well off

his immigrant workers are, complained that they receive “assistance” plus “Christmas presents and gas cards” from the county, and then compared that with his own earnings by exclaiming, “I’m probably not even getting paid \$2 an hour for the amount of hours I put in!” Another small-scale farmer explained that he plans to stop employing immigrant workers through the J-1 visa program because the wage requirements were unreasonably high: “They are almost living better than we are.” Another contrasted his own limited resources with his workers’ evident extra cash in order to explain why he does not provide health insurance to his employees:

My good shoes are 8 years old, and they will buy four new pairs of brand new shoes and brand new clothes all the time.... We have to pay insurance, heat, and electricity and just lots and lots and lots of things. I don’t supply health insurance.... I really think they should have to dig deep in their pockets. I’m not saying they shouldn’t get help. But I have to pay way more than they do, and I’ve got insurance and I’m paying insurance.

Such claims pervaded our interviews with dairy farmers and were especially pronounced in the interviews with small-scale farmers, who conflated their own class status with that of their workers to defend the wages and fringe benefits they do or do not offer.

Many of the California farmers similarly conflated their own class identity with that of their workers. At the end of the survey, when asked to comment on anything discussed in the survey, several small-scale farmers stated that our survey questions were not relevant to their enterprise, asserting that they earn less than their employees and work on equal footing with them. As one farmer noted, “Most of the questions didn’t seem to relate to us because we are so small—we work with our laborers and treat them well.” Another asserted, “At my wages, they are doing better than I am. The only difference is I’ve been doing what I’m doing for 32 years and have been willing to live without pay and work my ass off 7 days a week, 16 h a day instead of 8 h a day, 5 or 6 days a week.” Such claims and calculations of self-exploitation obscure the farmers’ and farmworkers’ very different levels of autonomy, control over capital, and vulnerability to abuse, and the fact that farmers talk about their own “earnings” in ways that do not reflect the profits they routinely reinvest into the operation and use to pay down personal debts (Brown and Getz 2008; Galt 2013; Guthman et al. 2006). Other farmers equated their position with that of their employees by claiming that they constitute a “family”. After responding to a question about whether the respondent would like to provide better conditions for their fieldworkers, one asserted, “Good full-time and seasonal people soon become like family. You

always want to take care of family and you do your best.” The “family” claim implies that the employer would naturally treat their workers well (as one would not exploit one’s own family) and resonates with Gray’s (2013) findings that farmers’ paternalism disguises class differences between themselves and their employees. These types of obfuscations reinforce the belief that their own class position aligns with that of their employees, which may enable farmers to rationalize providing lower levels of wages, insurance, and other job rewards. This finding illustrates how cultural analysis can strengthen classic structuralism explanations for why an aspect of organizational structure, such as firm size, shapes job quality. Because our studies were not designed to ascertain farmers’ class identities nor compare them with those of their employees, we are unable to say how representative these beliefs are. However, the fact that all but one of these statements came from farmers classified as small-scale suggests that such beliefs are more prevalent among smaller-scale farmers and thus might help to explain why large farms prevailed in terms of some job quality metrics. That these comments were not specifically solicited suggests that these participants feel strongly about them. We should also note that no unsolicited comments countered these data.

Our Wisconsin data also reveal that farmers’ own middle-class *aspirations* help to explain our finding that farm size had no effect on the intrinsic rewards of entry-level dairy work. Small firms in other industries are often more intrinsically rewarding in terms of creativity, autonomy, harmonious working relations, better communication, more flexibility, and lower levels of conflict (Kalleberg and Van Buren 1996; Schumacher 1973; Wallace and Kay 2009). In contrast, entry-level jobs on *all* dairy farms are monotonous and repetitive, and few smaller-scale dairy farms offer any other type of work for hired workers. Nearly every dairy farmer we interviewed—from all sizes of farms—revealed that expanding their operations and hiring others to do the monotonous work of milking cows enables dairy farmers to fulfill their own middle-class lifestyle aspirations. As one owner of a medium-size dairy farm stated, “When our kids were older, we wanted it where we could both attend our kids’ events.... Contrary to what some of the locals think—that it is all about money—it is really about lifestyle.” A small-scale dairy farmer noted, “It gets kind of old to work holidays and every weekend. ... We milked like 80 cows, or 70 cows. You did every holiday and every weekend. You got bigger so you wouldn’t have to do it—so you could have employees help do it.” Moreover, as the following quote from one larger-scale dairy farmer suggests, organizing dairy jobs in this way enables some farmers to conform to their own class identity:

There was a point in my life where I was working hand-in-hand with my son and I said, "I'm a post-graduate degree person and you are going to go to college and be degreed, and here we are pushing and scraping manure around." I said, "I think there is a potential for us to do better than that."

Scholars researching other agricultural contexts have similarly found that class identity and dominant norms help motivate farmers to industrialize their operations (Bell 2004).

Our interviews also reveal that dairy farmers' kin and peers hold similar middle-class aspirations, and these help to explain why we found that many of the job quality measures associated with large farms accrue disproportionately to white, U.S.-born workers. Specifically, in interviews with us, dairy farmers of all sized farms explained that strong social ties in these rural communities compel farmers to accommodate their kin and (white, U.S.-born) peers' middle-class lifestyle expectations by giving them the best shifts. One farmer noted that, after hiring a local high school student to help with the milking, the boy's parents called and told him: "We've got a good basketball team here. You can't make him work this weekend." That is, the fact that large farms' advantageous shift structure accrues disproportionately to white, U.S.-born workers stems in part from the pressure farmers feel to fulfill their peers' middle-class lifestyle expectations.

The middle-class aspirations and lifestyle expectations of employers' kin and peers also help explain why another large-farm advantage—opportunity for promotion—tends to accrue disproportionately to white workers. Specifically, data from our in-depth interviews and observation at dairy industry events indicate that dairy farmers of all sized operations feel obligated to accommodate kin interested in joining the farming operation; the expectation among all parties is that the kin will join as co-owners and will do advanced tasks—not milking the cows. To accomplish this, farmers expand their operations, allocate advanced tasks among the co-owners, and hire non-kin to milk the cows. Additionally, farmers explained that their (white, U.S.-born) peers seeking farm work refuse to milk cows and insist upon doing the more advanced and desirable tasks. As a result of these two sets of expectations and the strong social ties in rural Wisconsin communities, the advanced farm jobs are allocated to white, U.S.-born workers while immigrant workers' job prospects are largely limited to milking cows. Many immigrant workers recognize this disparity; as one immigrant milker we interviewed stated about the advanced positions at his current place of employment, "Those jobs are not for immigrants."

### Immigration policing

Finally, our in-depth interview data from the Wisconsin study reveal that escalations in immigration enforcement

also help explain why the benefits of large farms accrue largely to white, U.S.-born workers. Data suggest that at least half of Wisconsin's immigrant dairy workers lack legal authorization to be in the United States.<sup>3</sup> We refrained from asking any of our research participants about individual workers' legal status because we detected high levels of anxiety about immigration enforcement in the area at the time of data collection and did not have time to establish significant rapport with the participants before meeting with them. However, other data provide insights into the legal status of these workers. Eight of the 12 immigrant workers with whom we conducted in-depth, confidential interviews voluntarily divulged their lack of legal status to us. All of the 20 farmers we interviewed expressed concerns about legal status issues, and most voluntarily divulged having employed unauthorized workers. The hired labor sessions at all major Wisconsin dairy industry meetings in the past several years have been dedicated to legal issues associated with hiring unauthorized workers. Additionally, other researchers find that approximately half of immigrant agricultural workers in the United States are unauthorized (US Department of Labor 2001–2002). In confidential interviews, many explained to us that they manage their fears of being apprehended, detained, and deported by accepting the low-level tasks, wages, and shifts handed to them. Like their counterparts in other industries, unauthorized immigrant farm workers and those with unauthorized kin feel an overwhelming and anxiety-ridden sense of deportability (Coutin 2000; De Genova 2005; McCandless 2010; Rosas 2006; Stephen 2004). This is driven by the fortification of the U.S.-Mexico border; the growing power, violence, and fees of smugglers; escalations in immigration policing throughout the interior of the United States; and increased repercussions of apprehension by law enforcement. Wary of upsetting their employers and thus risking interaction with law enforcement, many immigrant farm workers comply with the tasks, shifts, and wages offered to them and do not press for promotion. As one immigrant dairy

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worker explained in an interview, “Many of us, because we are immigrants, we stay silent, and even more now because the situation is so serious. So you stay quiet, and they abuse you a lot.” Also, immigrant workers explained that they work as many hours as possible in order to pay off their debts and remit earnings to their kin, in case they are apprehended by law enforcement. Others explained that they work long hours and refuse to take any days off because they need to pay off their debts to their smugglers, who have been increasing their interest rates over time. “You feel the weight of the debt. I want to work more hours a day, two hours more. The more, the better. The debt you owe and the interest make you think.” Dairy owners are happy to leave these “compliant workaholic” immigrant workers in the milking positions, given that U.S.-born workers roundly reject those jobs and insist upon more advanced positions.

Employers explained that they manage their own risks of immigration policing by refraining from promoting immigrant workers into the more advanced and publicly visible positions. Through the course of private, in-depth interviews, all dairy farmers with immigrant workers confessed that they were afraid of immigration enforcement. Several eventually admitted that they refrain from training and granting responsibilities to (presumed or actually unauthorized) immigrant workers, as they would lose that “investment” if the workers were arrested for immigration violations. Several other employers explained that they were unwilling to promote immigrant workers into positions that require the use of tractors and other heavy machinery, as those jobs require paperwork that might trigger immigration-related bureaucratic scrutiny (i.e., as insurance companies require copies of drivers’ licenses and driving record for all workers operating such equipment). A few others explained that restricting immigrant workers to milking positions keeps them in the barn—out of sight—and thus partially hides employers’ hiring practices from scrutiny by nativist neighbors and law enforcement (see also McCandless 2010). We should note that we did not ask any of our research participants about individual workers’ legal status; instead, these comments were unsolicited. In-depth interviews were essential for illuminating these motivations; farmers and workers usually discussed their own concerns about legal status and how they managed them only at the end of the interview, after rapport had been sufficiently established, and after the audio recorder was turned off. Our qualitative data thus provide unique insights into why the effect of farm size on promotion opportunity and shift structure is mediated by race and nativity.

In addition to actively dividing workers by presumed legal status, employers then justify those divisions as a natural occurrence. Like employers elsewhere, nearly all

dairy farmers we interviewed naturalized the clustering of immigrant workers in the entry-level positions as stemming from immigrants’ “work ethic” that makes them enjoy and excel at monotonous, menial work (Holmes 2013; Maldonado 2009; Moss and Tilly 2001; Waldinger and Lichter 2003; Harrison and Lloyd 2013). As one dairy farmer noted, “I’ve never had anybody that seemed to want to work and just milk cows and be satisfied with that, like the Mexicans do.” Through drawing symbolic boundaries between groups of workers along lines of culturally differentiated interests and norms, employers obscure immigrants’ politically produced deportability and naturalize the fact that immigrant workers are largely excluded from the advantages of working on large farms that accrue disproportionately to white, U.S.-born workers.

## Conclusion

As the first systematic study of the relationship between farm size and job quality for hired workers in agriculture, our findings help to fill a notable gap in scholarship on the social implications of changing farm structure. Consistent with scholars’ findings in other contexts, larger farms in both cases fared better than or no worse than their smaller-scale counterparts in terms of most job quality metrics in our studies, while small farms fared better in terms of a few notable exceptions (Hollister 2004; Kalleberg and Van Buren 1996; Kersley et al. 2006; Marsden et al. 2001; Wilkinson 1999). Additionally, our Wisconsin case demonstrated that many of the advantages of working on large farms are mediated by race and nativity, as they accrue disproportionately to white, U.S.-born workers. We highlighted several explanations for these patterns. Some job quality measures tend to be greater on larger farms because of economies of scale. Others are a function of industrialization, which itself often increases with farm size. Other aspects of job quality are simply a function of firm size itself. Additionally, some of our findings stem from small-scale farmers’ working class identities, which enable them to justify paying low wages and offering few fringe benefits. Finally, we argued that farmers’ and their peers’ class identities and aspirations, as well as farmers’ and immigrant workers’ fears of immigration policing, together help to explain why many large farm advantages accrue disproportionately to white, U.S.-born workers.

In sum, notwithstanding agriculture’s exceptional characteristics that distinguish it from other industries, farms look a lot like firms in other sectors when it comes to job quality. Moreover, despite the striking differences between the two cases in terms of the commodity sectors and regions, large farms in both cases prevailed in terms of most job quality metrics studied. These patterns cannot be



reduced solely to economies of scale, as they stem from a complex array of both political economic and cultural factors. We do not argue that larger farms are necessarily better places to work. Indeed, extensive evidence of deplorable exploitation and abuse on large-scale farming operations, from sanctioned slavery on antebellum plantations in the southeastern United States to illicit slavery found in Florida tomato fields today, clearly refutes such an assertion, as do our findings that small farms prevailed in some job quality metrics (CIW 2014). Rather, our findings indicate that those concerned about precarious employment and improving job quality in agriculture should not limit their attention to large-scale operations but instead should extend their gaze to all operations that hire workers.

Our findings suggest a few recommendations for future research. First, given that the cases we have examined here are not representative of all agricultural systems, future research should test whether our findings are replicated in a larger sample of farms and in other agricultural commodity sectors. Second, although our findings are generally consistent with the extant literature, our California wage data diverge from the well-established firm size-wage effect others have observed in non-agricultural sectors; that divergence could be due in part to our limited earnings data for advanced workers and deserves further analysis of wages in light of detailed data on worker tenure, fringe benefits, bonus schemes, and regional labor market conditions. Third, that these outcomes stem in part from dominant class norms shared by employers and their kin and peers merits further investigation in studies of labor relations in agriculture and other industries alike, as scholars investigating the relationship between firm size and job quality have not, to our knowledge, identified this as an explanatory factor. Fourth, future studies should also attend to job quality metrics we have not discussed. Fifth, scholars should interview workers themselves, partly to identify the job quality metrics they feel are most important.

Finally, our analysis illustrates the value of mixed-methods research, as loosely structured, qualitative methods allowed employers and workers to reveal unexpected factors that explain the quantitatively documented patterns in work and job quality. Employers' narratives about themselves reveal the complex ways in which their own class identities and aspirations, as well as those of their peers, condition the relationship between farm size and job quality. Additionally, building rapport through in-depth interviews made employers and workers comfortable enough to discuss the ways in which their concerns about legal status and immigration enforcement exclude immigrant workers from the benefits of large-scale farms. Such relationships and pressures do not emerge in the highly structured quantitative surveys that dominate the

scholarship but clearly help to produce the patterns we documented.

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