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Mexican sending region and workplace experience: A preliminary study of agricultural guestworkers in Ohio

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Abstract

This article shares the results of a 2022 survey of male, Mexican H-2A workers in Ohio (n = 267). We describe the demographic profile of this population, including age, years of experience in the program, education level, marital status, and Mexican sending state. We then examine the relationship between sending regions of Mexico and certain workplace outcomes, specifically likelihood of working for a foreign labor contractor, subsector of H-2A labor, and risk of being charged to participate in the program. Findings include a higher risk of predatory recruitment practices for men from Chiapas, Oaxaca, and Guerrero, and a funneling effect towards agriculture (as opposed to nurseries) for those same states. Intended as exploratory research, the results lay the groundwork for similar projects in other states and suggest a place-based approach for developing improvements to the H-2A program.

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Keywords
H-2A program, agricultural labor, Mexico, guestworker population, Ohio farmworkers

Introduction

On January 17, 2023, the United States and Mexico signed a memorandum of understanding (MOU) regarding the agricultural H-2A visa and other guestworker programs. According to a statement by the U.S. Department of Labor, the agreement includes improving recruitment practices and enforcing regulatory standards and it "affirms a mutual commitment to increased transparency and coordination between the two countries" (U.S. Department of Labor, 2023). This MOU was a response to the current labor crisis in agriculture, in which many growers are unable to find sufficient local labor for their farms and businesses (Zahniser et al., 2018). Because of this, the H-2A program, which allows U.S.-based employers to hire foreign workers on temporary visas, has become one of the primary sources of labor. It grew 280% between 2013 and 2022, and the upward trend is expected to continue (U.S. Department of Labor, 2022). Although the terms of the program theoretically provide fair wages, decent housing, and labor protections for the workers, researchers and advocacy organizations alike have established that violations of those terms are commonplace. Workers are subject to predatory recruitment practices in their home countries, housing inspections are rarely conducted, and wage theft is a common practice (Bauer & Perales Sanchez, 2020; Bauer & Stewart, 2013; Smith-Nonini, 2002).

The MOU is significant nevertheless because it demonstrates that both countries recognize the importance of this visa program, as well as its flaws. However, how the transparency and commitment declared in the memorandum get turned into action is an open question. Currently, H-2A guestworkers are largely an unknown population because they are excluded from the National Agricultural Worker Survey, and very little population data are maintained by the U.S. government. Only age, sex, and sending country are available in the publicly available Department of Homeland Security data, and so information such as sending community within their country, years of experience, educational attainment, and other demographic information about them are not known.

What is well established, and which this MOU is partly responding to, are the abuses associated with the program. Ethnographic work, in both English and Spanish, has recorded the multiple ways H-2A workers are exploited: they are forced to pay recruitment fees, offered substandard housing, not paid sufficient wages, required to work long hours and in unsafe conditions, and threatened with retaliation or blacklisting if they complain or report the abuses (Izcara Palacios, 2010; Smith-Nonini, 2002). Reports by advocacy organizations also document these experiences, and a recent report by the Center for Migrants Rights finds that every one of the 100 workers they spoke with had experienced at least one violation (Bauer & Perales Sanchez, 2020). Many disciplines have examined the structure of the program, identifying the multiple ways the terms of the visa create vulnerability for the workers and encourage impunity on the part of employers (Beltran, 2018; Hill, 2008; Keegan, 2023; Minkoff-Zern et al., 2022; Strauss & McGrath, 2017).

On the other hand, farmworker health literature has suggested that H-2A status has a protective effect within the farmworker population, with studies noting that H-2A visa holders are less food insecure (Hill et al., 2011) and have better sanitation and pesticide training than undocumented farmworkers (Whalley et al., 2009). According to Arcury et al. (2015), their perceived work safety climate is similar to other farmworkers, although they experience more stress related to family separation. Mexican scholarship has also explored the experience of specific sending communities (González Morales, 2021; Madera-Pacheco & Hernández, 2016; Tomás & González Morales, 2020) and how the program can have both positive and negative effects for participants, their families and their communities. However, no demographic survey of H-2A workers has been undertaken on either side of the border.

In sum, there is still much to be learned about this population. Basic demographic data such as educational attainment, marital status, or sending region would allow for better coordination between the two countries. Moreover, such informa-

tion is crucial for identifying the distribution of risk within the general H-2A population. For example, determining where predatory recruitment practices are occurring, if newer participants are more likely to be charged a fee, or if indigenous language speakers are not receiving the contract in a language they can read all require a more granular understanding of who the guestworkers are. This article provides baseline demographic data, identifies variation within the population, and highlights statistical associations between Mexican sending regions and various workplace experiences using the results of a survey of 285 H-2A workers in Ohio. More broadly, this is an exploratory study that will lay the foundation for future research.

The H-2A Program

H-2A workers are migrant agricultural guestworkers who work on U.S. farms on a temporary visa. Although the H-2A visa was created as part of the Immigration and Nationality Act of 1952, it was not widely used until the 2010s (Martin, 2020). Nationally, 93% of H-2A workers come from Mexico, 3% from South Africa, 2% from Jamaica, and the remaining 2% from a variety of countries, including Guatemala, El Salvador, and Nicaragua (Martin, 2022). North Carolina, Washington, Florida, Georgia, and California accounted for 52% of the visas issued in 2021 (Martin, 2022). Use of the visa has increased nationwide over the past decade, from 74,192 visas issued in 2013 to 298, 336 in 2022 (U.S. Department of Labor, 2022). In 2021, 96% of H-2A visa holders were male and 60% were between the ages of 25 and 39 (Department of Homeland Security, 2022).

The regulations and laws governing the H-2A program are different from those that apply to other migrant and seasonal agricultural workers (MSAW), creating a workforce that has different risks and protections than their counterparts. For example, employers must provide free housing to H-2A workers, and the federal standards for the housing are higher than for other MSAW. H-2A workers are also paid the Adverse Effect Wage Rate (AWER), which is much higher than the minimum wage and therefore higher than what other MSAW might be paid (Costa & Rosenbaum, 2018). However, H-2A workers are excluded from the Agricultural Worker Protection Act (AWPA), which is the primary law that protects the migrant and seasonal agricultural worker population (Ryon, 2002). Although in some cases—such as housing and wages—the H-2A regulations are in fact stronger than the AWPA, exclusion from the act creates significant vulnerabilities as well. Specifically, H-2A workers cannot easily access a federal court, which means certain legal remedies are difficult or impossible to pursue when violations occur (Ryon, 2002). Moreover, complaints must be filed with the Wage and Hour Division (WHD) of the Department of Labor, but the WHD is not required to follow up on a complaint, nor does it have a specific timetable to do so. This is problematic for workers who are only in the country for a limited period of time and whose stay in the country is contingent upon employment by the very entity they are accusing of violations (Ryon, 2002). Finally, the H-2A visa is not portable, which means that if an H-2A worker is experiencing workplace abuse or violations, they cannot seek work elsewhere in the U.S. In other words, the visa is tied to a specific employer and they can only work for that business. In the end, this creates a highly immobile workforce that has few options for legal redress.

Like other MSAW, H-2A workers can be employed directly by a grower or subcontracted through a foreign labor contractor (FLC). FLCs are middlemen who recruit, transport, house, and supervise a labor crew for a farm owner. The FLC's profit is the difference between what they charge the grower for their services and what they pay the crew—a situation that creates a powerful incentive for wage theft or poor safety practices to increase profitability (Horton, 2016). Although both the AWPA and the H-2A regulations have rules regarding FLC employers, in practice these are difficult to enforce. When disbarred due to violations, FLCs often continue by simply forming a new company under a different name. Their assets are often kept outside the U.S., making them difficult to find or seize during lawsuits. Use of FLCs became permitted in the H-2A program in 2010, and since then they have become a significant source of H-2A employment. By 2019, FLCs accounted for 53% of the H-2A employers in the vegetables and melons category and 45% in the

fruit and tree nuts category (Castillo et al., 2021).

Most H-2A workers are employed in specialty crops, such as fruits, nuts, or vegetables, that require extensive hand labor to be harvested. They are less frequently employed in row crops, such as corn and soy, which have largely been mechanized. They are also employed in greenhouses and nurseries, but are not permitted in the dairy industry, which is a year-round operation, and thus the need for workers is not seasonal or temporary. Agricultural contracts, employment related to the planting and harvesting of fruits and vegetables, tend to be of shorter duration compared with contracts for nurseries and greenhouses.

One of the notable features of the H-2A program is the wealth of available data about H-2A employers, which contrasts sharply with the paucity of information about the workers themselves. The purpose of this paper is twofold. First, it begins to address the data gap by sharing the demographic profiles of H-2A workers in Ohio. Although not examining a national sample, it provides a point of comparison for researchers and practitioners attempting to understand the unique characteristics of H-2A populations in their own states. Second, it identifies relationships between the region of origin in Mexico and various work outcomes in the U.S. By demonstrating, for example, the spatial relationship between Mexican sending state and predatory recruitment practices, this article lays the groundwork for more targeted advocacy efforts and applied research in the future.

Methods

Sampling Frame

This study utilized a semi-structured interview to gather both population-level data, such as age, educational attainment, and years in the H-2A program, in addition to more subjective information about H-2A workers' experiences and labor arrangements in Ohio. The topics included open-ended questions about participants' work experience and adjustment to life as a guestworker, in addition to more closed questions about healthcare access and occupational health and safety.

The sampling frame consisted of any male H-2A worker in Ohio who was from Mexico or Central America. The frame was created by making a database from Department of Labor data, which records, among other information, the addresses where the H-2A workers live and work, the dates they will be in Ohio, and the number of people living at each site. Over 95% of H-2A workers are from Mexico or Central America, and virtually all are male (U.S. Department of Homeland Security, 2022; U.S. Department of Labor, 2021).

To get a cross-section of workers at different kinds of farms, the farms were stratified by location (northern Ohio and southern Ohio) and by farm size. We defined small farms as having 1–15 workers, medium farms as having 16–70, and large operations having more than 70. Target sample numbers were then created for each category, with a total sample of 375, a diverse and potentially representative sample size for the 3,686 workers in the 2021 applications. There were no large farms in the south, so that stratum was left empty. To ensure that the final sample would include a number of different farms, we did not interview more than 15 people at a medium farm or 50 people at a large farm. Table 1 shows the final numbers by stratum.

Table 1. Final Sampling Counts by Stratum

	South	North	Total
Small	22	52	**74**
Medium	50	56	**106**
Large		105	**105**
Total	**72**	**213**	**285**

Fieldwork Logistics

From April to August 2022, two researchers surveyed male, Spanish-speaking H-2A workers in Ohio (n = 285). H-2A entries are staggered throughout the growing season, so travel was timed to a specific county to coincide with the time in the season when the majority of the workers in that county would be present.

We conducted fieldwork on Sundays and after working hours Mondays, Tuesdays, and Thursdays. After arriving at an address, we knocked on the door and waited for someone to respond. If someone answered and confirmed they were an H-2A

worker, they were invited to participate in our survey and offered a US$20 cash incentive for their time. At large camps we either used this process or we relied on a snowball method, in which interviewed workers would find other eligible men to participate. For the very large camps, where it was impossible to recruit or interview everyone in one visit, we returned multiple times. If no one was home, and it was possible for us to return, we would visit the address again at a later date. In total, we located workers at 55% of the addresses we visited. Our response rate among those whom we spoke with was 74%. By the season's end, we had visited 84% of all H-2A employers in the state and driven over 10,000 miles in Ohio. Unless the employer was physically on the site when we arrived, we did not ask their permission to visit a property, nor did we alert them to our presence or otherwise share worker participation with employers.

Survey Administration

All surveys were conducted in Spanish, and if permission was granted, we audio recorded them. Otherwise, we recorded their answers in our survey instrument and kept fieldnotes to record our general observations or interactions that occurred outside the interview itself. No identifying information was collected.

The results presented here are from the survey data, supplemented by fieldnotes, participant observation at migrant advocacy meetings, and semi-structured interviews conducted in 2021 with stakeholders (such as farmworker advocacy organizations or relevant state agencies) and H-2A employers (n = 27). For this specific article, we focus on the results from Mexican participants only; thus, respondents from Nicaragua, Guatemala, and El Salvador are excluded from the analysis.

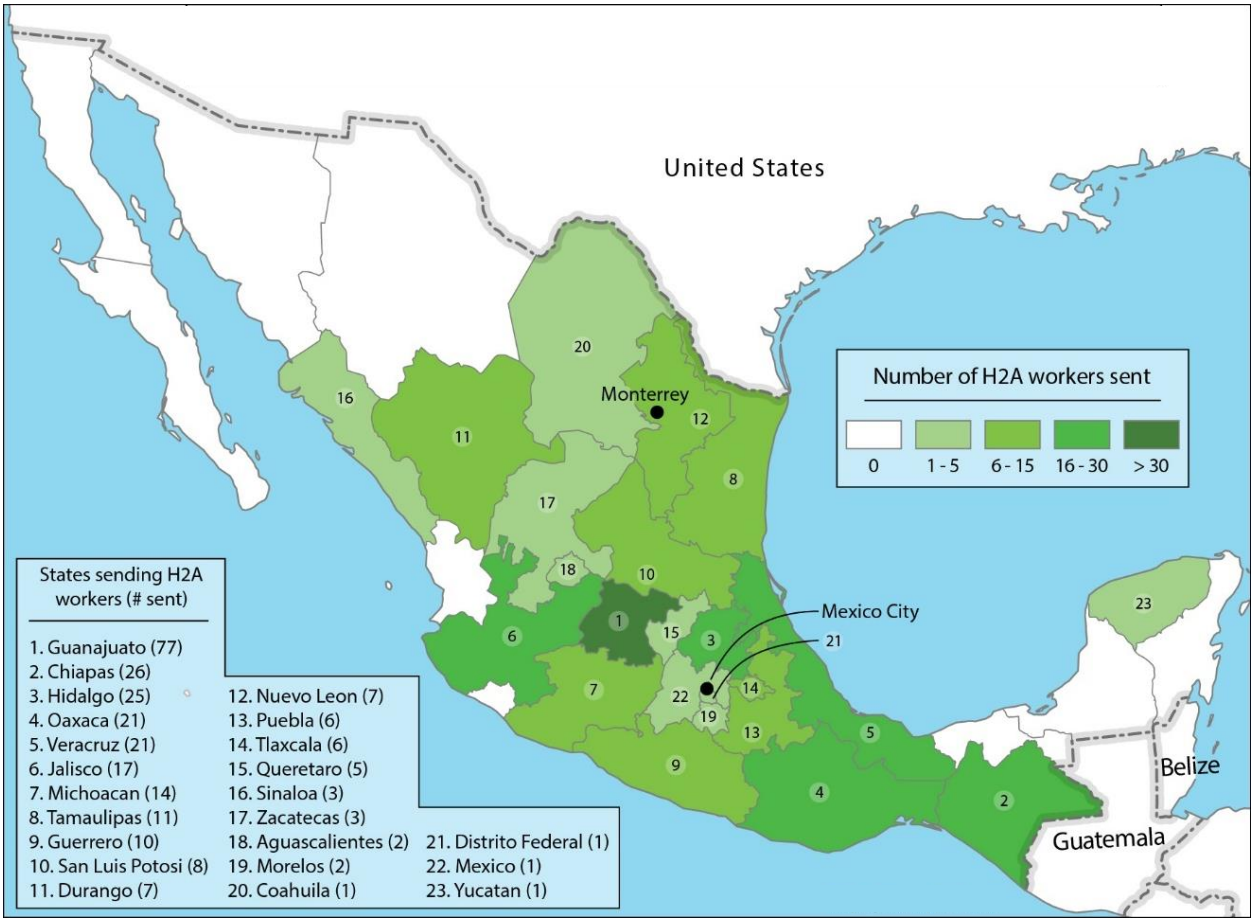
Statistical Analysis

The statistical analyses for the 267 survey participants included in this study were performed in R (Rstudio Team, 2020) and included basic descriptive statistics and binomial logistic regression to explore the association between variables. The regression analysis focuses strictly upon sending state and work experiences in Ohio, while controlling for age and education. An additional variable called 'sending region' was created due to the issue of small numbers when examining the results by sending state, which can be seen in Figure 1.

Sending regions were created by considering both sample size and historical and empirical contexts, using Durand's 2007 taxonomy of Mexican regions as a starting point (Table 2). I then disaggregated Oaxaca and Guerrero from the central region since Durand acknowledges that this region contains states with extremely different populations. Residents of Oaxaca and Guerrero are primarily poor and Indigenous, but these regions have long histories as migrant sending states, in contrast to places like Hidalgo and Querétaro, which are more connected to the economic and social activity of the Mexican capital (Durand, 2007). I also placed Chiapas in its own category. Usually grouped in the southeast region with Veracruz—that is, high indigenous population, high poverty and with a more recent sending history (and even then, of low intensity), some of the characteristics of the participants from Chiapas distinguished them from others in the region.. I placed Veracruz and Puebla together because of their geographic proximity and the fact that they share a similar migration trajectory, only entering the transnational migration stream in large numbers in the 1980s (Massey et al., 2010). I put Guanajuato in its own category because the workers from Guanajuato have a particularly well-established relationship with Ohio and they were a large portion of the sample. States with two or fewer participants in the study were excluded from the analysis.

Three binomial generalized linear models were run to assess the relationship between (1) Mexican sending region and working for an FLC, (2) Mexican sending region and type of H-2A work (agricultural vs. nursery), and (3) Mexican sending region and paying to participate in the program. The reference was set to Guanajuato for the sending region categorical variable due to that region having the largest population, and each of the regressions controlled for age and education. The equation for the multivariable binary generalized linear models can be described as:

Figure 1. Mexican Sending States for Ohio H-2A Workers, 2022



Map by James DeGrand.

Table 2. Region Description and Comparison

Region	States Included in Present Analysis	States Included in Durand's Categorization
Southeast (SE)	Chiapas (**Not present in sample**: Tabasco, Quintana Roo, Campeche)	Campeche, Chiapas, Tabasco, Veracruz, Quintana Roo, Yucatán
Southwest Coast (SW)	Oaxaca, Guerrero	
Historical Sending Region (HSR) [a]	Jalisco, Michoacán, Durango, Zacatecas, San Luis Potosí (**Not present in sample**: Colima, Nayarit)	Jalisco, Guanajuato, Michoacán, Aguascalientes, Durango, Zacatecas, San Luis Potosí, Colima, Nayarit
Guanajuato (GJ)	Guanajuato	
Central Mexico (CM)	Hidalgo, Querétaro, Tlaxcala	Guerrero, Hidalgo, México, Morelos, Oaxaca, Puebla, Querétaro, Tlaxcala, Distrito Federal
South Central (SC)	Veracruz, Puebla	
Border States (B)	Tamaulipas, Nuevo León, Sinaloa (**Not present in sample***:* Baja California Norte, Baja California Sur, Chihuahua, Sonora)	Tamaulipas, Nuevo León, Coahuila, Sinaloa, Baja California Norte, Baja California Sur, Chihuahua, Sonora

[a] Per Durand's 2007 and others' taxonomy of Mexican regions, this defines areas of Mexico that have been sending people to the U.S. for over a century.

$$P(Y) = \frac{e^{b_0+b_1X_1+b_2X_2+\cdots+b_nX_n}}{1+e^{b_0+b_1X_1+b_2X_2+\cdots+b_nX_n}}$$

where P is the probability of the dichotomous outcome Y occurring, e is the mathematical constant, b_0 is the intercept, and b_n is the coefficient for the independent variable X_n. In the results, the coefficients were transformed into odds ratios via exponentiation.

Results

Table 3 provides descriptive statistics by sending region. Across the seven regions there were a maximum of 77 participants and a minimum of 21 per region, totaling 267 male survey participants ranging from 20 to 61 years of age. For all regions, 45% were married (n = 122), 58% had at least one child (n = 156), and 49% had an agricultural job in Mexico (n = 131). Ninety-two percent spoke

Table 3. Descriptive Statistics by Sending Region

	Region [a]	SE	SW	HSR	GJ	CM	SC	B
	Total Individuals	26	31	49	77	36	27	21
	Mean Age (min.–max.)	32 (22–44)	29 (20–45)	30 (20–54)	35 (20–61)	30 (22–45)	31 (22–49)	33 (21–46)
Type of Farm	Nursery	4	8	27	49	20	16	11
	Agriculture	22	22	22	28	16	11	10
Education Level	Grade 8 or under	11	7	11	24	8	5	5
	Grade 9 or over	15	24	37	53	28	22	16
FLC Status [b]	Not part of an FLC	24	29	35	68	23	16	21
	Part of an FLC	2	2	14	9	13	11	0
Pay to Participate	Didn't pay to participate	13	22	39	66	30	21	15
	Paid to participate	13	9	10	10	6	6	6
Years of Participation	< 3 yrs participating	11	13	29	28	17	22	5
	> 3 yrs participating	15	18	20	49	19	5	16
Languages Spoken	Indigenous Language	4	8	5	1	2	0	0
	Only Spanish	22	23	44	76	34	27	21
Marital Status	Domestic Partnership	7	12	8	11	12	11	3
	Married	15	5	18	53	11	9	11
	Other	0	1	0	0	0	0	1
	Separated	0	1	0	1	0	0	0
	Single	4	12	23	12	13	7	6
Have Children	Yes	22	22	30	66	22	21	16
	No	4	9	19	11	14	6	5
Job Type in Mexico	None	0	3	3	15	1	2	1
	Agriculture-related	13	16	27	28	23	8	16
	Trades/Mechanic	6	9	11	21	7	8	1
	Transportation	3	2	2	1	0	2	2
	Business Owner	3	0	2	7	0	4	0
	Other	1	1	4	5	5	3	1

[a] Region abbreviations: SE = Southeast; SW = Southwest Coast; HSR = Historical Sending Region; GJ = Guanajuato; CM = Central Mexico; SC = South Central; B = Border States
[b] FLC = Foreign labor contractor

Spanish only (*n* = 247) and 73% had an educational attainment of grade 9 or above (*n* = 195). In work-related variables, 80% were not part of an FLC (*n* = 216), 77% did not pay to participate (*n* = 206), and 53% had been participating in the H-2A worker visa program for over three years (*n* = 142). Half of the survey participants worked at a nursery (*n* = 135).

The results for the three binomial logistic regression models can be seen in Table 4. Model one (sample size *n* = 246) examined the relationship between working for an FLC and sending region (reference region Guanajuato), while controlling for age and education. Participants from the Border State Region were excluded from this model because none of them worked for an FLC. Participants from Central Mexico and South Central Mexico had statistically significantly greater odds of working for an FLC (3.53 and 4.59 respectively), while controlling for age and education, compared to participants from Guanajuato. Age was also statistically significant when controlling for all other independent variables, indicating that each increase in year of age is associated with an 8% decrease in the odds of working for an FLC.

Model two (sample size *n* = 267) looked at the association between working for an agricultural farm versus a nursery and sending region (reference Guanajuato), while controlling for age and education. There were a statistically significantly greater odds of participants working for an agricultural farm if they were from the Southeast or Southwest Coast (9.4 and 4.95 times, respectively), controlling for age and education, compared to Guanajuato.

The final model, model three (sample size *n* = 267), explored the relationship between paying to participate and sending region (reference region Guanajuato), while controlling for age and education. Survey participants had statistically significantly greater odds of paying to participate if they were from the Southeast or Southwest Coast (8.54 and 3.41 greater odds, respectively), while controlling for age and education. Further, for each year of age younger there were 4% statistically significantly greater odds of paying to participate, and

Table 4. Model Results

		Confidence Interval		
	Odds Ratio	2.5 %	97.5 %	*P*-Value
Model one: FLC				
(Intercept)	3.3	0.47	24.97	0.236
Region (Ref: GJ)				
SE	0.49	0.07	2.14	0.394
SW	0.35	0.05	1.5	0.201
HSR	2.15	0.81	5.86	0.125
CM	3.53	1.31	9.87	0.014*
SC	4.59	1.56	13.96	0.006*
B	NA	NA	NA	NA
Age	0.92	0.87	0.97	0.002*
≥ Grade 9	0.48	0.22	1.06	0.068
Model Two: Ag/Nursery				
(Intercept)	0.72	0.18	2.91	0.643
Region (Ref: GJ)				
SE	9.4	3.19	34.82	0.0002*
SW	4.95	1.98	13.43	0.001*
HSR	1.34	0.63	2.86	0.443
CM	1.38	0.61	3.15	0.437
SC	1.2	0.48	2.96	0.696
B	1.59	0.59	4.25	0.355
Age	1	0.96	1.03	0.792
≥ Grade 9	0.9	0.49	1.65	0.724
Model Three: Payment				
(Intercept)	0.02	0	0.11	.001*
Region (Ref: GJ)				
SE	8.54	3.02	25.53	.001*
SW	3.41	1.16	10.13	0.025*
HSR	2.09	0.76	5.76	0.149
CM	1.56	0.48	4.77	0.444
SC	2.05	0.62	6.44	0.225
B	2.87	0.85	9.27	0.08
Age	1.04	1	1.09	0.031*
≥ Grade 9	1.98	0.95	4.43	0.081*

participants with greater than or equal to a grade nine level of education had 1.98 times greater odds of paying to participate, controlling for all other variables in the model.

Discussion

From a demographic perspective, this research supports previous research on guestworkers while also establishing that there is variation within the H-2A population. The majority of the men are between the ages of 25 and 40 and have completed at least one year of high school education. The educational attainment of the H-2A worker population in the study mirrors what is known about the Mexican migrant population more generally: specifically, that they are not the least educated people in their sending communities (Chiquiar & Hanson, 2005; Feliciano, 2020). Many of the H-2A workers in the study are also partnered and fathers. Again, this reflects what is generally known about guestworkers, which is that employers select for men who have strong ties in their home communities, thus theoretically reducing the likelihood that they will desert the program (Binford, 2013). However, this finding also underscores the mental and emotional health challenges of a visa program that requires family separation.

On the other hand, the results also demonstrate variation in years of experience in the H-2A program and occupational background of the participants. The difference in ages between Oaxacans and Chiapans, for example, suggests that Oaxacans are essentially entering the program as soon as they are legally able to do so, likely taking advantage of established social networks to activate the process quickly, whereas the entry process takes longer for those from Chiapas. By contrast, the men from Veracruz are overwhelmingly recent participants in the program, even though both Veracruz and Chiapas are considered "low-intensity" sending states (Vega et al., 2022; Durand, 2007). The wide range of occupations represented suggests that experience in agriculture is not the only factor for a successful H-2A application and points toward the centrality of social networks in H-2A recruitment.

Further, and maybe most importantly, this research identifies relationships between sending regions in Mexico and work experience outcomes in the U.S. Specifically, we conducted exploratory statistical analysis to better understand the associations between sending state, participation in FLCs, type of farm worked at, and paying recruitment fees, while controlling for age and education. Our results indicate that there is a statistically significant association between certain sending states and each of the dependent variables. Individuals from Central Mexico and South Central Mexico had over three times greater odds of participating in an FLC compared to individuals from Guanajuato. Older individuals also had a statistically significantly lower odds of working for an FLC, which are often associated with wage theft, human trafficking, and other workplace violations (Arcury & Quandt, 2007; D. Chapman, personal communication, May 28, 2021; Horton, 2016; Preibisch & Otero, 2014). If people from certain regions of Mexico are more likely to utilize this kind of labor arrangement, that knowledge can be helpful when trying to identify the groups most at risk of exploitation or the communities that might benefit from increased advocacy work.

Those from the Southeast and Southwest Coast, which include Chiapas, Oaxaca, and Guerrero, had over nine times and four times greater odds, respectively, of working at an agricultural farm rather than a nursery compared to individuals from Guanajuato. This matters for a few reasons. Although both nursery and agricultural work are physically demanding and carry health risks, agricultural labor tends to be more intense. Workers in agriculture tend to be in the U.S. for shorter contracts (average 171 days versus 240 days for nursery), but their hours are much longer and they are working during the hottest months of the year. In Ohio, 46% of contract recipients for agriculture enter between June and August, as opposed to nurseries, where 95% enter between February and April (Department of Labor, 2022). During our fieldwork, agricultural workers were harder to find because of their extended schedule. Even arriving at 7 at night or on a Sunday, they would often be absent from their residences. Our interviews with agricultural workers reflect this intensity; on more than one farm, men reported leaving for work at 5 am and not returning until 10 or 11 pm, and when asked about getting a day off, one man

responded by saying, "Here there are no Sundays." Simply put, men from Chiapas, Oaxaca, and Guerrero are more likely to be doing the most physically strenuous and time-intensive work, sometimes during periods of extreme heat.

This contrasts greatly with nursery workers, some of whom start at 7 am but are finished for the day by 3 pm. As one nursery worker reported, the hardest time was the period when they had to fulfill orders, during which they worked 12 hours a day. This exceptionally demanding period for the nursery worker reflected what was an agricultural worker's typical schedule. Conversely, being an H-2A worker on a nursery contract prolongs family separation. Many nursery workers spend the majority of the year in the U.S., and some in our study reported that by the time they accounted for travel in both directions, they only get 6 weeks at home before having to return.

Although more research is needed to understand the specific implications of different kinds of H-2A contracts, be it in terms of health, family separation, or income, this study establishes both the variation in experience that accompanies these two subsectors and highlights a regional sorting effect in determining who does what kind of work.

Similarly, individuals from the Southeast and Southwest Coast had greater odds of paying to participate when compared to their counterparts from Guanajuato; these are the only two regions which demonstrated a statistically significant difference. For those from Chiapas, the odds were over 8 times greater, while for those from Oaxaca and Guerrero the odds were over 3 times greater. The program's terms prohibit charging potential workers to enter the program, but it is well known that the practice is common (Bauer & Perales Sanchez, 2020; D. Chapman, personal communication, May 28, 2021). What has not been established is how that risk is distributed throughout the H-2A population. The fact that 50% of Chiapans and 43% of Oaxacans have paid, especially when compared to the 16% from Hidalgo, suggests that at least some of the risk is determined by location. In our interviews, men from Chiapas often spoke about their lack of social networks in the H-2A program and the relatively few recruiters in their region. The result is that the recruiters who are present function as gatekeepers and are able to charge fees with impunity. Perhaps not coincidentally, both Chiapas and Oaxaca are areas of Mexico that are generally poorer, have lower levels of education, and larger Indigenous populations, thus exacerbating the regions' potential vulnerabilities.

Policy Implications and Directions for Further Research

This research can inform policy-making and advocacy work in the field of agricultural labor. For example, heat-stress education efforts might be increased in Mexican communities where men are more likely to work in agriculture, since they will be outside during the hottest time of year. Similarly, resources to support ethical recruiting practices can be targeted toward the regions identified here as being more at risk for poor recruitment practices. On the demand side, potential employers can be made aware of the heightened risk of such issues if they are hiring people from these regions and thus be encouraged to eliminate any middlemen where possible.

While this study establishes an association between certain aspects of the H-2A experience and particular regions of Mexico, it does not address the reasons for this relationship. Although we can hypothesize why men from Chiapas and Oaxaca are more likely to pay for participation in the program or more likely to have jobs in agriculture as opposed to nurseries, more research is needed to establish causality. Additionally, the scale of geographic analysis in this study is quite broad, as most of the regions include multiple Mexican states. More geographically honed research might reveal particular communities within each Mexican state where certain experiences—such as working for an FLC—are common, while clarifying that it is not common throughout that state. Finally, the data are limited to H-2A workers in Ohio. Conducting similar studies in other states will both create a more robust sample and allow for inquiry on U.S. state policy implications.

Conclusion

Because H-2A workers are not included in the National Agricultural Worker Survey, and because they are a relatively new population in much of the

U.S., very little is known about them. By providing a basic demographic description of H-2A workers in one state, the results here begin to fill in some of those gaps. Furthermore, by analyzing results at the more granular level of sending state, it is demonstrated that there is variation within this population. Workers have different levels of experience, different kinds of family responsibilities at home, come from different occupational backgrounds, and have varying levels of social networks in the U.S., and all these factors affect the way a specific man will experience the program. The results of the statistical models, while necessarily partial and preliminary, also suggest several productive lines of inquiry for future research. From exploring spatial patterns of predatory recruitment practices to determining differential risks associated with subsectors of H-2A occupations, the work presented here offers a starting point for research that can improve the lives of men who contribute so much to our agriculture and economy.

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