Population Connectivity Across Borders

Farmworker Movement & Migration in Marion County, Oregon



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CONTENTS

Executive Summary	2
Glossary	2
Methods	5
	Executive Summary

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1 EXECUTIVE SUMMARY

This pilot project responds to the numerous challenges in planning testing, vaccination, and contact tracing services for migratory farmworkers during the height of the 2020-2023 COVID-19 Public Health Emergency. Using the Centers for Disease Control and Prevention (CDC) Population Connectivity Across Borders (PopCAB) methods,¹ this assessment shows origins, destinations, and seasonal crop activities of farmworkers who move in and out of Marion County, Oregon. The findings laid out here will assist public health officials as they develop data-informed programs, strategies, and emergency preparedness plans.

Many agricultural regions rely on a migratory workforce to come from other areas during peak times, such as during harvest season, to meet labor demands that the local workforce cannot fill. These workers can come from other parts of the state, from other states, or from other counties, they may speak numerous languages, and they may be unfamiliar with local health care or public health services. Understanding the demographics of the migratory workforce, when and where they come from, where they may go after working in the area, and what types of agriculture they participate in can provide critical information for public health officials to use as they develop programs, strategies, and emergency preparedness plans.

Staff at the National Center for Farmworker Health pilot tested the PopCAB methods with farmworkers, farm labor contractors, and staff of farmworker-serving organizations and government agencies to better understand farmworker migration in Marion County, Oregon. Marion County sits in a geographically central part of the Western stream of farmworker migration, an established route of farmworker mobility.² A total of 25 participants provided rich information about the migratory workforce in this county, and a line-by-line analysis of interview and focus group transcripts found:

- The availability of housing, the weather, and potential earnings in a particular crop has a major influence on what migration routes and places of employment workers select each year.
- There are three main groups of migratory workers, and they vary in terms of demographic characteristics, what crops they work in, and the work migration routes they take. The groups include 1) workers who are based in Oregon, 2) workers who are primarily based in Central California, and 3) workers who are based in countries outside the U.S.
- The largest group of migratory workers are those based in Central California, and these workers are primarily Indigenous, speak Indigenous languages of Mexico and Central America, and may traverse four states (California, Oregon, Washington, Idaho) for work in agriculture over the course of a year.

The results of this assessment illuminate the routes and frequency of mobility and languages spoken by farmworkers. These results can facilitate communication among public health and health care providers in origin and destination communities; improve vaccine availability, personal protective equipment distribution, and emergency responses; and improve training and health education materials.

2 GLOSSARY

<u>Corrida</u>: A corrida is a locally used term for a migratory route that follows seasonal harvests of a single crop or multiple crops. The English translation of this Spanish term means "route" or "run." Participants

in this assessment used this term frequently to express the mobility they see as intrinsic to farmwork in and out of Marion County. A corrida can traverse multiple states or counties within a state. Participants stated that farmworkers would "seguir la corrida" or following crops as the seasonality of earnings and optimal work conditions changed.

<u>H-2A workers:</u> The H-2A nonimmigrant visa allows agricultural employers in the U.S. to hire people from other countries to work on farms on a seasonal basis.³ The employer must provide transportation and housing for all H-2A workers and provide a contract that details the rate of pay (which is regulated and set at a minimum floor in each state), the type of work, the work locations, and housing information. For more information, see https://www.uscis.gov/working-in-the-united-states/temporary-workers/h-2a-temporary-agricultural-workers

<u>Indigenous:</u> In the context of this research, the term "Indigenous" refers to people who identify, and are identified by Indigenous population communities, as ethnically or culturally descending from a people inhabiting the Americas before the arrival of Europeans. This includes American Indians and Original Peoples from the lands now known as Canada, the U.S., Mexico, Central American or South American countries. Indigenous people may or may not speak languages derived from those spoken before the 16th Century.

3 Introduction

The purpose of this pilot project was to characterize mobility patterns of migratory farmworkers who temporarily leave their homes or residences to work in the agricultural sector in Marion County, Oregon, and those who leave their homes in Marion County to work in agriculture in other parts of the state or country. Data captured includes the timing and seasonality of migration, length of stay for work, demographic characteristics of workers who migrate, and mapped stopping points on migration streams. The toolkit uses qualitative, spatial, and quantitative data collection techniques to describe the reasoning behind mobility in a specified region to inform public health interventions.

Marion County, Oregon has an estimated farm labor workforce of 15,523 workers, including approximately 300 international guest workers who travel to the county from other countries each year using a nonimmigrant temporary H-2A work visa (referred to as H-2A workers or international workers). This county was selected due to housing a mix of both domestic (U.S.-based) and international migrant farmworkers, and its location in the middle of a historic migrant stream, where people move for agricultural work in seasonal patterns along the West Coast. The mix of domestic and international workers was documented in the results from NCFH's Farmworker COVID-19 Community Assessment (FCCA) conducted in July 2023. The FCCA showed that 30% of participants had migrated to the county for work in agriculture in the past 12 months. Seven percent were H-2A workers and 93% were U.S.-based workers. Department of Labor data indicated that 235 H-2A workers were present in the county in July at the time of data collection. Migratory workers include those that follow corridas into/out of the county and H-2A workers who travel from other countries to the U.S. to work in agriculture on a temporary, seasonal basis.

Figure 1: Marion County, Oregon and key cities with farmworker populations

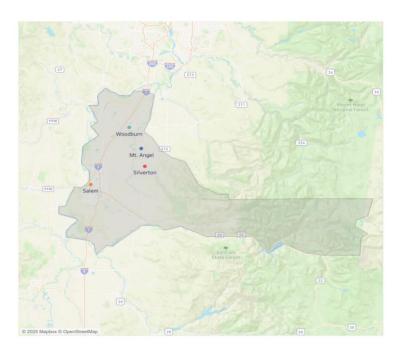
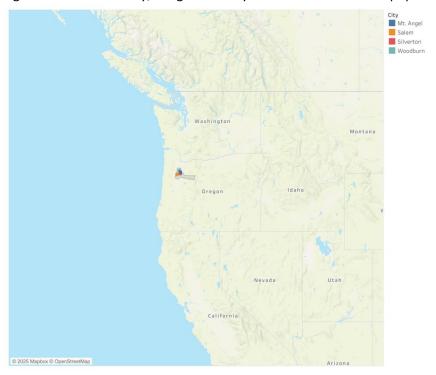


Figure 2: Marion County, Oregon and key cities with farmworker populations and surrounding states



Public health and health care programming can benefit from an understanding of farmworker migration in numerous concrete ways, such as:

 Preparing additional vaccine doses because the community population will increase during peak agricultural season.

- Factoring increased population numbers during peak agricultural seasons for the purposes of emergency evacuation planning.
- Developing partnerships with health departments and health care providers in the origin (or destination) community of farmworkers to ensure continuity of needed medications, vaccinations, and other forms of health care.
- Hiring interpreters on a temporary basis to facilitate access to care and services when migrant workers are residing in a community.
- Training health care providers and outreach workers to recognize health conditions that may be
 prevalent in the workers' communities of origin and not in the destination communities, or vice
 versa.
- Improved infectious disease contact tracing, outbreak prediction, and outbreak prevention.

4 METHODS

The CDC's PopCAB Toolkit, 1 consists of the following core components:

- Rapid community literature review and formative interviews
- Use of existing data sources (such as the NCFH Farm Labor Dashboard and the Marion County FCCA)^{5,6}
- Focus group discussions with participatory maps
- Intercept interviews (new component developed and tested by NCFH)

4.1 RAPID COMMUNITY LITERATURE REVIEW AND FORMATIVE INTERVIEWS

A rapid brief review of available data sources, peer-reviewed publications, and organizational publications of farmworker migration in Marion County was conducted prior to the assessment to obtain information on farmworker numbers, characteristics, location, and relevant policies and projects. Peer-reviewed and organizational publications were searched and reviewed, including documents published about migratory farmworkers in the designated community in the past five years. The results can be reviewed in Appendix A: Marion County Community Brief.

The estimated number and percentage of workers in the community who are employed in crop production, animal production, and as H-2A guest workers was included in the community literature review. Key data sources for these estimates included:

- NCFH farm labor estimates: The estimated percentage of workers employed in crop and animal production was drawn from the National Center for Farmworker Health's farm labor population estimates.⁵
- H-2A guest worker data: The estimated percentage of workers employed as H-2A guest workers was drawn from the available H-2A public disclosure data from the Department of Labor.⁴

Formative interviews with six staff of local government agencies and farmworker-serving organizations were also conducted to ensure NCFH staff were aware of any key issues that could impact data collection, such as recent immigration enforcement actions, and to discuss local recruitment of participants. Some of the questions asked included the seasonality of crops in the area that year/season, the different types of migratory farmworkers in the area, and key partnerships with local community health centers or community-based organizations. Formative interviews also contributed to the

establishment of trust-based data collection with participants, since NCFH was already an identified or recommended partner.

4.2 Focus Group Discussions

Focus group discussions (FGDs) were planned with four different types of participants that are key in the agricultural community. The four types of participants included: 1) farmworker-serving organization staff, 2) local migratory farmworkers, 3) farm labor contractors, and 4) Oregon governmental agency staff working with the farmworker community. NCFH created a different facilitation guide for each of the four types of participants.

The eligibility criteria for focus group participants were the following:

- Be at least 18 years of age at the time of data collection AND the following, depending on which type of participant group they represented:
 - Local experts (farmworker serving organization staff and governmental staff):
 - Have provided in-field services to or advocacy for migratory farmworkers in Marion County for at least one year
 - Represent different types of expertise (e.g., community-based organization, academic, agricultural extension office, health care provider)
 - Must be able to speak English or Spanish

Migratory farmworkers:

- Is either a migrant worker that works or resides in Marion County and moves away from Marion for at least one week for work in agriculture OR normally resides outside of Marion County and migrates to Marion County for work in agriculture for at least one week.
- No language exclusion for farmworkers, interpretation services were offered to participants if needed.

Farm labor contractor/Employer:

- Has employed migratory workers in Marion County for at least one year
- Must be able to speak English or Spanish

All FGDs were conducted in person, with one NCFH facilitator and two note takers. We aimed to have between 5-7 participants in each focus group. FGDs lasted approximately one hour and were audio recorded. FGD participants participated in a facilitated discussion related to farmworker mobility, including international migration, inter- and intra-state migration, demographic characteristics of workers, general transportation and key areas of work, as well as points of interest related to social and healthcare access. During the FGDs participants were shown different maps they could annotate based on discussion for point of interests and mobility patterns. The maps used included were, 1) USA and Mexico map, 2) Oregon state map, 3) Marion County map, 4) Salem city map and 5) Woodburn city map. Three of the FGDs were conducted in Spanish, only the Oregon governmental staff focus group was conducted in English.

4.3 INTERCEPT INTERVIEWS

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Due to the challenges in recruiting the desired number of migratory workers for focus groups, NCFH staff tested an "intercept" interview method. Staff visited one community site (a laundromat) known to be visited by migratory workers and one H-2A worker housing site to recruit and interview participants on the spot. These intercept interviews included all of the same questions asked during focus group discussions for migratory workers, but did not include annotation of the large maps, as map annotation was not feasible for this method. All interviews were conducted in Spanish, were recorded, and included notetaking by NCFH staff. The information resulting from these interviews is included as a key finding in this report if the information mentioned was corroborated in at least one of the FGDs.

4.4 ANALYSIS

All FGDs and intercept interviews were transcribed by NCFH staff into their original languages (either English or Spanish). Three bilingual NCFH research staff and a bilingual contractor with a doctorate in anthropology reviewed recordings and transcripts in English and Spanish and discussed major themes identified. Key themes are included as a finding if they were independently discussed in at least two of the focus groups, or in intercept interviews and at least one focus group. Findings mentioned by only one focus group or in one intercept interview were included if they provided relevant context or insight related to corroborated findings. Transcripts were then systematically coded line-by-line based on the identified key themes (housing types, crop types, worker groups, Indigenous workers, worker demographics, mobility patterns).

We identified mobility patterns and points of origin and destination through reviewing the recordings and by examining the annotated maps created during FGDs. Maps were created to demonstrate the flow of workers from key agricultural regions described by participants, which in some discussions were specific small towns and in other discussions were counties or geographic zones, such as the Treasure Valley in Idaho. Maps are not representative of exact geographic coordinates of origin and destination locations described by participants.

5 KEY FINDINGS

All focus groups and intercept interviews with the 25 participants took place between July 13-15, 2024. The discussions centered around three key themes: 1) factors that influence workers' migration patterns, 2) different types of worker migration groups, and 3) workers from Indigenous communities. Table 1 illustrates the workers interviewed and types of interview context.

Table 1. Focus groups and intercept interviewees, by number

Farmworker	Farmworkers	Labor	Oregon	Total
Serving		Contractors	Government	
organizations			Agency	

Focus Group	5	3	3	5	16
Discussions					
Intercept Interviews		9			9
Total					25

5.1 FACTORS INFLUENCING MIGRATION PATTERNS

Housing and family units

Participants mentioned the availability of housing and the presence of family members in Marion County as decisive characteristics of farmworker mobility. Workers' ability to travel without family members corresponded to more mobility, whether their families resided in California, Oregon, Washington or at an international location.

Furthermore, the availability of contacts ready to offer dwelling space or availability of employer-provided housing on farms was a draw for workers toward staying and working in a particular location. Participants described this dynamic explaining high local mobility, especially between the northern Willamette Valley in Oregon and on the other side of the state line with Washington.

Cultivation cycles and earnings

Motivations for movement of farmworkers described here are explained by a respondent that commented that farmworkers "adapt [se acomodan]" as opportunities arise. Particular crops can be more or less abundant in particular years and pay varies over the years from farm to farm and crop to crop. With so many crops cultivated in and around Marion County (from cherries to potatoes to strawberries), Interstate 5 (I-5) and Interstate 84 (I-84) provide convenient vias for corridas, though these corridas vary from year to year and from farmworker to farmworker.

Weather patterns and crop changes

The majority of participants mentioned weather patterns as a driving factor of migration, especially in determining the timing of when workers migrated and where they migrated to. Drought has been a major issue in Oregon recently, leading to lower crop yields in some industries. Wildfires in Oregon also reportedly have had an impact on crop production and yield. Wildfires and droughts can delay or completely halt a harvest season in an area, which may cause workers to shift their work destinations. Weather patterns were also described as pushing workers out of agriculture in some cases, such as moving from agriculture into contract wildfire fighting work in the summer.

5.2 Worker Groups by Origin

The following three migratory groups were discussed in all four focus groups: 1) Oregon-origin workers, 2) la corrida workers, and 3) international-origin workers. Based on the Marion County FCCA findings⁶ and focus group discussions from this project, la corrida workers with a home base in California are the largest group of migratory workers in and out of Marion County.

Participants described specific types of housing and crops for each group, which are described in Table 2 below. Participants mentioned a total of 20 different crops for workers who migrated into, out of, or

through Marion County. Blueberries were the most frequently mentioned crop that migratory workers harvested in the northern Oregon area.

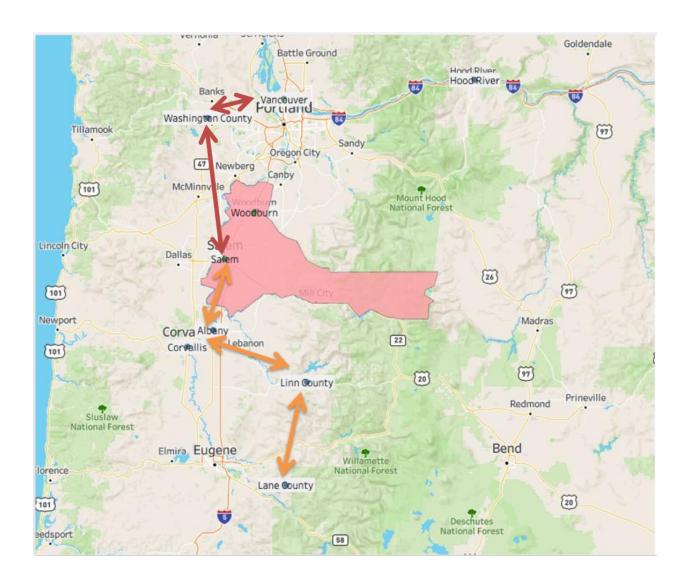
Table 2. Summary of findings for three different migratory groups of workers in Marion County, Oregon.

Worker Group	Origin	Housing	Crops	Key Mobility Patterns
Oregon-Origin Workers	Oregon	Home ownership, single family rentals, and shared rentals	Apples, beets, blackberries, blueberries, carrots, cherry, chiles, Christmas trees, cucumbers, garlic, grapes, hazelnuts, hops, lemon, olives, onions, orange, peach, pears, plums, salal (hoja de horcha), squash, strawberry roots, sweet potatoes, tulips, wheat	Daily commuting, seasonal migration within Oregon & Washington
La Corrida Workers	California	Farm labor camps, employer-provided housing, shared rentals	Apple, blueberries, cherry, grapes, peach, pears, potato, salal, strawberries	Seasonal routes to Oregon, Washington, Idaho
International- Origin Workers	Mexico, Central & South America	Employer-provided housing, single family rentals, shared rentals	Blueberries, vegetables	Direct flights/bus routes; some remain in Oregon year- round

5.2.1 Oregon-origin workers

Oregon-origin workers live in Oregon for most or all of the year and commute to work sites (See Figure 3). Locally, within Marion County, workers travel among nine cities and towns: Aumsville, Brooks, Keizer, Mt. Angel, Salem, Silverton, Stayton, Turner and Woodburn (not displayed in Figure 3). They also commute south from Marion County and back to the nearby locations of Monmouth, Albany, Newberg, and Corvallis (Polk, Linn, Yamhill, and Benton County, respectively). Workers can travel to these places and return to Marion County daily. Others may work north of Marion in Washington County, Oregon or in Washington state on a daily basis. Local Marion County workers may take local non-agricultural jobs in the off season. Some participants mentioned that Oregon-origin workers are often born in different parts of Mexico, or in Guatemala before settling in Oregon, and some were from Indigenous Mayan or Mixtecan towns. Some Oregon-origin workers who reside in Marion County may join workers on la corrida from California, migrating to Washington or Idaho on a seasonal basis for agricultural work.

Figure 3: Oregon-origin mobility circuits south and north of Marion County (Note: red arrows indicate the northern circuit; orange arrows indicate the southern circuit).



Oregon-origin Workers: Housing

Participants reported that most farmworkers, both migratory and non-migratory, who live in Oregon rented their homes and did not live in employer-provided housing while working in Oregon. Some rented a room in a house, and others rented an entire home or apartment. Oregon-origin workers and other community members were often described by FGD participants as supporting workers arriving from other places. Homeowners in Oregon may rent out bedrooms and living rooms to workers from other areas on a temporary basis. Farm labor contractor participants described creative adaptations when local houses filled with temporary renters, such as purchasing extra refrigerators and creating chore schedules to keep houses tidy. Housing scarcity for farmworkers was often met with acts of community support and generosity from Oregon-based community members, described by one farm labor contractor:

"Porque un señor me dijo – porque como es conocido mío. Y él dijo, 'No, es que la persona no tiene dónde vivir. Y no sé qué hacer. Me está pidiendo...', o sea, la persona pues que no

encuentra lugares. Ya llega con los dueños y ya les pide eso, y ellos pues, total de que le ayudan pues, le ayudan también a darle lo que ellos tienen, y ya ellos también están ahí. Pero sí, sí, ayudan muchos. Ayudan unos a los otros también."

(English translation: "Because a man told me – he's an acquaintance of mine. And he said, 'No, the person has nowhere to live. And I don't know what to do. He's asking me...', that is, the person who can't find places. He arrives with the owners and asks them for that, and they, well, they help him, well, they also help him to give him what they have, and they are also there. But yes, yes, many help. They help each other too.")

Oregon-origin Workers: Crops

Oregon-origin workers had the largest diversity of crops mentioned, as shown in Table 2 previously. Workers migrated within Oregon to work in blueberries, blackberries, strawberry roots, grape, hazelnuts, tulips, beets, onions, garlic, sweet potatoes, squash, chiles, cucumber, carrot, Christmas trees, hops, and wheat. Oregon-origin workers would go to harvest cherry, apple, peach, plum, pear, grape, olive, blueberry, and salal in Washington and onion, olives, orange, lemon, plum, and table grapes in California.

5.2.2 La Corrida Workers

Focus group participants often reported that la corrida workers as the largest group of migratory workers. They may migrate for work on their own, in work crews, or with their families. A common theme among all focus group discussions was that most of la corrida workers came from California, were Indigenous, and spoke Indigenous languages in addition to Spanish. Indigenous groups named in this group included Mixtecan, Zapotecan, Triqui, Purepecha, Nahua, Maya Mam, Maya K'iche, and Maya K'anjob'al peoples. All interview groups mentioned that this group followed a pattern from California to the Pacific Northwest and back to California in the course of a season. These workers had numerous travel routes for work, and work in many different crops.

Though California was mentioned as the primary starting point for most la corrida workers into Marion County, participants mentioned Arizona, California, Florida, Texas, and, possibly, Washington as starting points for the most mobile workers. For California and Washington, many towns and counties of origin were specified. Participants also indicated that, between Washington state and Marion County, workers "hop [brincan]" back and forth, depending on the availability of places to stay and anticipated earnings, rather than follow a corrida. Participants in two focus groups mentioned Arizona and Texas as origin points, and one focus group mentioned rumors of workers from Florida coming to Oregon but expressed some doubt about Florida as an origin point. No specific towns or counties of origin were mentioned for Arizona or Texas so these origin points are not illustrated in the map below.

Four main mobility circuits comprise la corrida (see Figure 4). These circuits may be thought of as branches – the "trunk" is a long journey, generally from central California (represented as a circle on the map), northward to northern Oregon, where workers split off and follow different types of crops. The influence of crops on specific circuits within la corrida was not explored in-depth during the focus group discussions or the intercept interviews.

Figure 4: La Corrida workers' four mobility circuits into and out of Marion County, Oregon



Circuit 1: Hood River/Willamette Valley Circuit

Participants said that workers trace an area of travel out of Marion County along the Willamette River Valley and then end la corrida in Hood River and return home to California.

Circuit 2: Northeast Oregon Circuit

There was strong concurrence among participants in different groups that farmworkers travel from Marion County along I-84, finding work in the Hood River Valley as far west as Milton-Freewater, Oregon before returning home. Farmworkers stated that migrants begin this journey in California's Central Valley.

Circuit 3: Idaho Circuit

Some la corrida workers travel from Marion County along I-84 southeast as far as Treasure Valley, where Boise, Idaho is located.

Circuit 4: Central Washington Circuit

Some farmworkers may follow la corrida into Washington's Tri-Cities area and the Yakima Valley, which is a major agricultural region in Washington.

La Corrida Workers: Housing

Access to quality housing was described as the most challenging for this group. One participant described housing for la corrida workers as "deplorable." These workers lived in camps on the farms of their employers, with relatives, or in rentals they could find that season. Some workers would rent a single room, and some participants described multiple families living in a single home.

La Corrida Workers: Crops

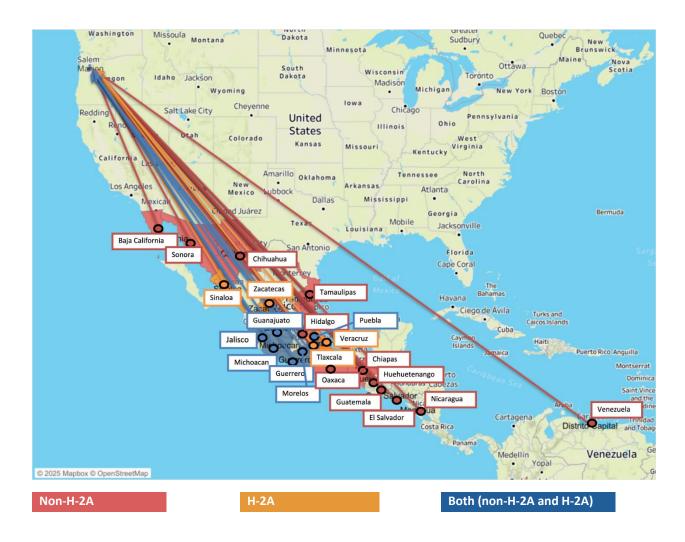
Workers from California were drawn to Oregon primarily for the blueberry harvest, and participants also mentioned these workers employed in Oregon's pear, strawberry, and wine grape industries. California-origin workers would move on to Washington to harvest cherry, apple, peach, pear, and salal or to Idaho for the potato harvest. Some participants said these workers would return to California in the fall for the grape harvest.

5.2.3 International-origin workers

This group includes H-2A guest workers, who come to the U.S. to work in agriculture on a seasonal, nonimmigrant basis, and workers who have recently arrived in the U.S. from other countries seeking employment (see Figure 5). Participants described farmworkers that hail from international origin points (IOPs) in 17 states in Mexico. Of these, 12 states were named as sending H-2A workers. H-2A workers mentioned flying directly from Mexico City to their work in the Marion County area, and some arrived by bus after multiple days of travel. The most frequently mentioned IOPs for H-2A workers were the Mexican states of Guanajuato, Michoacan, and Oaxaca.

For non H-2A workers, Mexico, El Salvador, Honduras, Guatemala, Nicaragua, as well as Colombia and Venezuela were identified as international origin points. Some participants mentioned regions within Mexico (La Mixteca in Oaxaca) and Guatemala (Huehuetenango Department). It was not explored in the discussions or interviews how long these workers had been in the U.S., and many are likely members of either the Oregon- or California-origin groups. Others may be non-migratory, staying in Marion County and seeking work in other industries when the agricultural season ends, such as construction, landscaping, wildfire fighting, and in restaurants.

Figure 5: Origin points for international-origin workers



International-origin Workers: Housing

H-2A guest workers live in employer-provided housing, sometimes in the same housing as the la corrida workers, and other times on their own. The types of housing H-2A workers lived in was not described by participants, but the intercept interview with six H-2A workers was conducted at their residence, which was a single-family home in an off-farm location.

Other international-origin workers reside in a variety of housing types as described for the other two groups, which are primarily either rentals or housing provided by employers. Government agency participants mentioned that Colombian and Venezuelan workers were drawn to the Marion County area for the more affordable housing it offered when compared to housing costs in the Portland metro area, which they said has been the main destination in Oregon for workers from these countries in the past.

International-origin Workers: Crops

Discussions about which crops international-origin workers were employed in were limited. The H-2A workers who participated in an intercept interview were employed in canning vegetables, and they also mentioned H-2A workers in the blueberry industry.

5.3 INDIGENOUS FARMWORKERS

Indigenous workers were present in all three origin migratory groups. Workers from Indigenous communities in Mexico and Guatemala were mentioned by all participants. Two of the intercept interview participants identified as Indigenous and were from a Triqui community in Mexico and mentioned meeting Mixtecan farmworkers in Oregon. Focus group participants identified numerous Indigenous peoples as working in agriculture, including Maya Mam, Maya K'iche', Maya K'anjob'al peoples from Guatemala; Purépecha people from San Jeronimo, Michoacan, Mexico; Nahua peoples from Veracruz, Mexico; Mixtecan peoples from Juxtlahuaca, Oaxaca and other regions in Oaxaca, Mexico; Zapotecan peoples from an unknown region in Oaxaca, Mexico; and Triqui people from an unknown region in Mexico. Participants mentioned farmworkers speaking "Mixteco Bajo" and "Mixteco Alto," but no other specific language varieties were mentioned.

FGD participants described Indigenous workers as comprising the majority of workers of the la corrida group. All of the previously mentioned Indigenous peoples were identified as arriving in Oregon from California. Among Oregon-origin workers, Guatemalan Mayan peoples were most frequently mentioned. Government agency participants made the clear distinction that most Mexican Indigenous peoples came from California, while most Indigenous peoples residing in Oregon were from Guatemala. Farmworker focus group participants mentioned Indigenous Mexicans residing in Marion County, including Mixtecan and Zapotecan peoples. It was unclear which, if any, Indigenous peoples were employed as H-2A workers in Oregon, but government agency workers believed that some H-2A workers were from Mixtecan and Purepecha communities.

In the intercept interviews with seven H-2A guest workers, visa holders were eager to point out their cultural and linguistic differences between themselves and with Indigenous workers, laughing and decisively responding in the negative when asked if any of them "spoke an Indigenous language." They also referred to this group as "los guatemalas," a slang term that, at best, serves to draw a strong line to separate Guatemalans/Indigenous Guatemalans from the Mexican visa-holders, a rivalry also pointed out in the government worker focus group. Stigmatization of Indigeneity and racism against Indigenous peoples is well documented in the literature on racial hierarchies in farm labor. ^{7–10}

Previous research on the West Coast of the U.S. indicates that Indigenous workers are often employed in berry crops. The high prevalence of berry crops for migrant workers in Oregon may be one reason that Indigenous workers were believed to make up the majority of migrant workers. This research has also documented social marginalization and poor housing conditions among Indigenous berry workers, similar to what FGD participants discussed in this pilot.

6 Discussion

For public health officials, nonprofit organizations, and healthcare providers, a key finding of this work is how adaptive the migration pathways are for farmworkers who move into and out of Marion County. Who migrates to work in agriculture changes over time, and where and when they move for work changes based on weather patterns, social networks, and other factors. This underscores the importance of public health partnerships with local farmworker leaders, producers, labor contractors, and others who are closely involved in agriculture.

A common theme in focus groups was the vulnerability of la corrida workers, who were also often described as being mostly Indigenous peoples. A non-profit leader pointed out that this highly mobile group of workers face the most language barriers and encounter difficulties getting services. They are also most likely to be living in camps or other low-investment housing. For example, these most mobile workers were characterized by a government respondent as resistant to signing up for the Oregon Health Plan because they anticipated being in Washington State the following month.

The availability of a place to return emerged as a key point of distinction in farmworkers' mobility patterns. For example, workers were characterized as moving in and out of Clark County, Washington depending on earning opportunities in Marion County and the availability of contacts to offer dwelling. Likewise, finding a place to stay in Marion County enabled close-in mobility, including commuting. But this characteristic, not elicited in interviews, also resulted in an occasional overlap in mobility in specified routes, where both more settled and migratory workers travel.

Notably, worker migration aligned with geographic features that facilitate movement, such as valleys and inter-state highways. Topographic and transportation-network analysis can further the power of this methodology to produce results predictive of worker mobilization and should be considered in future PopCABs focused on farmworkers.

Public health officials can put the above insights to work in important ways. Farmworker-serving public health institutions should train staff on migrant farmworkers' diverse types of mobility, coordinate with public health offices in other counties or states, and plan service availability in tandem with identifying housing, crop, and weather-related opportunities and barriers. Policies to create enforceable housing standards should be a basic component of work to improve and mitigate the health effects of substandard dwellings. Successful outreach methods, such as hiring community health workers, should be recognized and remunerated appropriately to develop institutional awareness of the location-specific, combined health effects of mobility, housing, language, and harvest and planting activities.

Organizations should also develop language access plans, which include assessment of locally spoken languages and planning of translation and interpretation services for effective communication and trust-building.

7 LIMITATIONS

Though this assessment identified many departure points in Mexico of H-2A workers, it found little to no migration out of Marion County for this same group. This is likely due to several of the respondent groups' unfamiliarity with H-2A workers' patterns and the limited nature of interviews with these visa-

status workers themselves. H-2A worker interviews were likely constrained by work-mobility restrictions imposed by the terms of work visas and the desire of the workers to only discuss permitted types of movement.

Though there was ample mention of presence and movement patterns of Indigenous workers, there were no members of these groups present in focus groups, and only two present in intercept interviews. This is consistent with the extra time and advance planning generally necessary to establish contact and trust with workers who may have less time, resources, and access to English- and Spanish- language information than the other categories of participants named here. With further planning these groups should be accessible. For example, one of the non-profit leaders included in the focus groups mentioned that his organization has committees comprised of members of Indigenous-language groups.

A swift assessment is a strong point of the methodology piloted here. However, the brief nature of the fieldwork was at odds with the deep knowledge necessary to understand participants' many mentions of local, county, and out-of-state toponyms. Future research projects of this kind should start by interviewing those with the most large-scale familiarity with migration routes and then hone in on interviews which include the most local sites. NCFH staff observed and learned over the course of data collection that conversations were more insightful and productive when moving from macro- to micro-discussions (e.g., starting with international movement, then interstate, then intrastate, and lastly intracounty).

The methodology would be improved at the field sites with tailored maps that anticipate place names such as county seats or towns within pre-identified agricultural regions such as the Willamette Valley. Validating place names using a common on-line map service such as Google Maps could also sharpen data collectors' ability to keep data consistent over the course of interviews.

Longitudinal study methods could get beyond some of the limitations of this brief assessment. As a central point of convergence of migratory farmworkers, Marion County provides the opportunity to partner with local organizations and a study cohort to design a project that corresponds to known patterns of mobility. A longitudinal study planned in this way could also allow for further development of key findings, especially in reference to Indigenous peoples, whose mobility and labor conditions appear to differ in important ways from non-Indigenous workers; and additionally, build rapport and trust with participants, whose good health and livelihoods, and those of their larger communities, would be the primary motive for the study and therefore a shared objective in forming lasting communication and research goals.

8 Conclusion

This pilot project produced a map of 144 toponyms representing vast worker mobility from South America to the Pacific Northwest. This result, organized spatially and textually, points to the future usefulness of this method for tracing and predicting migrant farmworker movements for emergency preparedness and public health planning. Farmworker populations in general face barriers in accessing health care, such as lack of health insurance and time limitations. These are compounded for migratory farmworkers, both domestic and international such as H-2A guest workers, given their potential short time spent in an area just during peak planting or harvesting seasons.

Language and transportation present additional barriers to health care. Improved understanding of what languages farmworkers speak can improve training and health education material quality; improved understanding of when and how many workers may arrive to a region will improve the needed availability of vaccines, personal protective equipment, or emergency responders; and improved understanding of migration routes can facilitate communication among public health and health care providers in origin and destination communities.

Labor mobility is important to understand for public health preparedness, specifically. This became apparent during the COVID-19 pandemic as gaps in vaccination doses arose due to large scale migration patterns. This assessment will enable local public health organizations to plan to inform and provide services to this vulnerable population during public health emergencies for infectious diseases. The methodology utilized here is recommended for other assessments of worker mobility in other key areas of the United States.

The findings herein have considerable public health policy implications. At times of increased disease spread or natural disaster impacts, state- and local-level partnering organizations and agencies' knowledge of farmworkers' languages, housing, and mobility patterns will be a key element in mitigating public health emergencies. Policy initiatives that recognize and evaluate the nexus of these conditions could lead to better outcomes for farmworkers. National, regional, and local relationships, such as those embraced in this assessment (state-level government workers, farm labor contractors, non-profit workers, farmers, and national-researchers) should be prioritized and institutionalized to enhance the effectiveness of public health measures, which rely on cross-linguistic communication and trust. Though farmworker health and safety are a longtime priority of farmworker policy, new patterns of mobility require that policy makers integrate language and mobility into their annual and event-based strategic planning for the health and safety of states and regions and ultimately the nation and continent.

9 APPENDIX: MARION COUNTY COMMUNITY BRIEF

AGRICULTURAL INDUSTRY CHARACTERISTICS¹¹

Number of Farms	Acres of Farm Land	Top Crops by Acreage	Top Crops by Sales	Top Livestock by Sales	% of Farms that Hire Labor	Share of Sales by Type (%)
2,477	275,483	1.Field and grass seed crops 2.Forage (hay/haylage)	1. Nursery, greenhouse, floriculture, and sod	 Milk from cattle Poultry and Eggs 	31%	Crop: 87% Livestock: 13%

3.Hazelnuts	2. Other crops and		
4.Vegetables	hay		
5.Nursery			

Source: USDA NASS, Census of Agriculture 2022, County Profiles

- The average farm size in Marion County where Woodburn is located was 106 acres in 2002. ¹² In 2022, the average size of a farm was 111 acres. ¹¹
- In the 1950's, Woodburn was known as The Berry Capital of the World.¹²

POPULATION SIZE AND EMPLOYER DETAILS

Farmworker Population Estimates

	Total Workers
# in	15,523
county	
% in state	15.4%

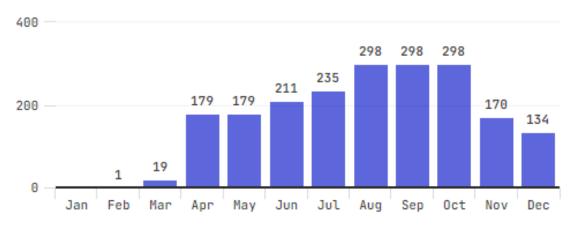
Source: NCFH Population Estimates represented in Farmworker labor dashboard¹³

	H-2A workers employed in County
2021	338
2022	390
2023	298
2024*	274

Source: U.S. Department of Labor H-2A program disclosure data. *H2A workers requested so far in 2024 (current job postings from January 1, 2024 to 06/25/2024)

Figure 1.1: H-2A guest farmworkers present in Marion County, OR by month: 2023

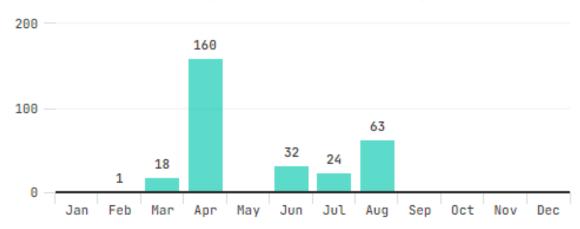
Guestworkers Present by Month | Marion County



Source: NCFH Farmworker Dashboard¹³

Figure 1.2: H-2A guest farmworkers arrivals in Marion County, OR by month: 2023

Guestworkers Arrivals by Month | Marion County



Source: NCFH Farmworker Dashboard¹³

COUNTY DEMOGRAPHICS

- Overall county population, according to the 2020 Census: 346,703.¹⁴
- A farmworker needs assessment conducted in Marion County reported 15 different Indigenous languages among farmworkers. These 15 were Akateko, Amuzgo, Chuj, Mam, Mixteco, Mixtec Alto, Mixtec Bajo, Nahuatl, Purepecha, Q'anjobal, Q'eq'chi, K'iche, Trique, Tsotsil, Zapotec. The most frequently reported languages are bolded.¹⁵
- Our Woodburn Community Survey suggests that about 17% of Woodburn's immigrant head of households belong to an Indigenous Mexican minority ethnic group.¹²
- An ethnographic study in 2002 reports that although The Census 2000 report showed that 50.1% of the town's residents were of Hispanic origin, this reflection did not recognize the diversity within the Hispanic population. Within the Hispanic population there were Tejanos-Mexican-American families from Texas and their 2nd or 3rd generation immigrant children and the Mexicanos, the 1st generation Mexican immigrants and their children. Also, those who self-identify as Mestizos and Indigenous immigrants. Within the self-identified Indigenous peoples, there were different Indigenous populations coming from different villages and towns in Mexico.¹²
- Indigenous languages reported by the COVID-19 Farmworker Survey (COFS) include variants of Mam, Q'anjob'al, K'iche, Mixtec languages, Purepecha, Triqui, and Zapotec languages among 25% (75) of their respodents.¹⁶
- According the U.S. Census 21% of Latinos in Marion County are considered living in poverty.¹⁵

United Sta	United States Census Bureau 2021 Data	
Ethnicity	White alone, percent	88.0%
	Black or African American alone, percent	1.6%
	American Indian and Alaska Native alone, percent	2.8%
	Asian alone, percent	2.6%
	Native Hawaiian and Other Pacific Islander alone, percent	1.1%

	Two or More Races, percent	3.9%
	Hispanic or Latino, percent	28.2%
	White alone, not Hispanic or Latino, percent	63.4%
Language	Language other than English spoken at home, percent of persons	25.1%
	aged 5 years+, 2015-2019	

Source: United States Census 2021 data¹⁴

HEALTH & ACCESS TO HEALTHCARE

Local Health Care Facilities

- Marion County Public Health Department https://marionhealth.org/
- Marion County Health Department https://marioncountyhealthdept.org/
- Lancaster Family Health Center at Lancaster https://www.yvfwc.com/locations/lancaster-family-health-center-lancaster/

LITERATURE REVIEW

Migration

- An ethnographic study of Marion County, Oregon, confirms migration from immigrants from Mexico. By the 1950's Woodburn had come to be considered the Berry Capital of the World. Russian immigrants, Mexican immigrants coming from Texas and California, and immigrants coming directly from Mexico moved in from the 50's to the 80's. These included Purepechaspeaking migrants from the central highlands of Michoacán. These Mexican immigrants moved to Woodburn to work with berries.¹²
- As seen in the table below, from a Community Survey which interviewed heads of households, there were many Mexico-based migration networks in Woodburn.¹²
- COFS participants (agricultural workers from Oregon, some from Marion County) reported country of origins such as Mexico, Guatemala, United States, Peru, and Honduras.¹⁶

Table 1B	
Mexico-Based Migration Networks in Wood	burn
State and Community of Origin of Mexican-Born HH Heads (N=67)	% Associated with Network
Oaxaca—Sta. Maria Tindu, Cd. de Oaxaca, San Juan Mixtepec, San Mateo Tunuche, Ocotlan, Huajuapan, Sta. Maria Caxtlahuaca, Zaachila	24%
Michoacán—Morelia, Quiroga, Jaripo, San Jeronimo, Chupicuaro various smaller ranchos	19%
Guanajuato—Penjamo, León, Silao, Guanajuato, Romita	13%
Guerrero—Acapulco, Coyuca, Tecpan de Galeana, Ometepec	6%
Mexico, D.F.	5%
Morelos—Cuernavaca, Totolapan	5%
Jalisco—Rancho la Canada, ranchos	5%
Veracruz—Poza Rica, Coyuca	5%
Puebla	3%
Sinaloa	3%
Nayarit	2%
Estado de Mexico	<2%
San Luis Potosi	<2%
Zacatecas	<2%
Tamaulipas	<2%
Durango	<2%
Colima	<2%
Tlaxcala	<2%

urn Community Survey, Q. A (Where Born.)

- A study in 2018 enumerating farmworkers estimated that in Marion County there were an estimated 4,472 migrant farmworkers and 8,877 seasonal farmworkers.¹⁷
 - This same study found that between these two groups, there was an estimated 26,673 non-farmworkers living in the same household
 - This study estimates that across the state of Oregon, 33% of the farmworker workforce is migrant and seasonal workers
 - This study estimates that across the state of Oregon, 75% of migrant and seasonal workers are "accompanied" by non-farmworkers¹⁷
- The Ag Census of 2017 estimated that 8,991 hired workers in Marion County farms worked less that 150 days on the farm, while only 4,525 hired workers worked more that 150 days on the farm.¹⁸
- A needs assessment conducted in 11 counties in Oregon including Marion County, found that 27% of migrant and seasonal farmworkers live in poverty, compared to 20% of the Latinx population in the same region.
 - This needs assessment also found exploitative practices experiences by migrant and seasonal workers such as illegal recruitment fees and wage theft¹⁵

Health Care Access

- While some women have access to some forms of healthcare, few have access to emotional health support and to services like free or subsidized and safe childcare that would alleviate their great care-taking responsibilities.¹⁶
- 82% of COFS participants reported not having access to mental health support. ¹⁶ COFS reports barriers to health care access such as costs, loss of wages, fear of losing job, lack of sick leave, childcare, fear of government authorities, transportation, and fear of COVID-19. ¹⁶ Indigenous farmworkers had a higher response of fear of losing job than non-indigenous participants.

Health Outcomes

- Findings from a 2019 study of farmworker health in Marion County showed that obesity was a prevalent risk factor for cardiovascular disease (CVD). Older (age 45-64 years) men and women farmworkers were more likely to have all 4 CVD risk factors than those aged 18-44. Living in the U.S. for 10 years or more was also associated with higher odds of obesity among the men and women.¹⁹
- Marion County has almost twice the number of farmworkers in farmworker housing sites than any other county in Oregon. A study on food accessibility in 2014 found that all but one farmworker labor camp qualified as being part of an urban food desert and that the one that had a food retailer nearby was a seasonal farm stand with limited food types. In conclusion there is much risk for lack of food access in Marion County. Marion-Polk Food Share is available to help mitigate the effects of urban food desert living.²⁰
- A needs assessment conducted in 2022 concluded from qualitative data that there is a need for mental health support. Findings show that over 1/3 of farm workers reported being depressed and only 7% had access to mental health support.¹⁵

Employment and Labor

- A farmworker needs assessment found that some farmworkers in Marion County felt lack of understanding from employers, especially about childcare.¹⁵
- A state study found the average income for individual farmworkers, including all sources of income, ranged from \$17,500 to nearly \$20,000 annually for workers in Oregon and Washington. Farmworker households in their entirety earn an average income of less than \$25,000 a year.¹⁷

In the News

Oregon Congresswoman introduces bill to provide disaster relief to farmworkers called the
"Disaster Relief Farm Workers Act." This disaster relief money will support farmworkers who
lose wages during disasters and public health emergencies like the COVID-19 pandemic or heat
waves like the 2021 heat wave that killed 100 farmworkers. June 24, 2024.

COMMUNITY RESOURCES

• Woodburn Family Resource Center https://www.woodburn-or.gov/community-services/page/woodburn-family-resource-center

- Northwest Family Services covers Clackamas, Multnomah, Marion, and Polk counties. Located at 6200 SE King Rd Portland, OR 97222 #503-546-6377 https://nwfs.org or service@nwfs.org
- Mano a Mano Family Center covers Marion and Polk counties. 3850 Portland Rd NE #130 Salem OR 97301 #503-363-1895 http://manoamanofc.org email: info@manoamanofc.org
- Marion-Polk Food Share https://marionpolkfoodshare.org/
- AWARE Food bank https://awarefoodbank.org/
- Oregon Human Development Center (OHDC) http://www.ohdc.org/

Local Health Care Facilities

- Marion County Public Health Department https://marionhealth.org/
- Marion County Health Department https://marioncountyhealthdept.org/
- Lancaster Family Health Center at Lancaster https://www.yvfwc.com/locations/lancaster-family-health-center-lancaster/

Education

Oregon Migrant Education Service Center https://www.wesd.org/omesc 2611 Pringle Road SE Salem, OR 97302

Legal Assistance/Advocacy

PCUN | Pineros y Campesinos Unidos del Noroeste PCUN https://pcun.org/ The Pineros y Campesinos Unidos del Noroeste (PCUN), a local immigrant rights and labor organization, came to prominence in the late 1980's helping Woodburn's Mexican farmworker immigrants complete their immigration applications and start on the road toward citizenship.

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