MPI
MIGRATION POLICY INSTITUTE

Issue Brief

Immigration and Farm Labor: From Unauthorized to H-2A for Some?

By Philip Martin

August 2017

Executive Summary

Immigrant workers have long played an important role in U.S. agriculture. Of the hired laborers who do most of the work on U.S. farms, three-fourths were born abroad and approximately half are not authorized to work in the United States. Foreign-born workers are closely associated with seasonal jobs in commodities that are labor intensive, including the fresh fruits and vegetables (such as berries and lettuce) that American and foreign consumers increasingly expect to be available year round.

However, while an immigrant-heavy workforce is nothing new, shifting migration patterns, workforce demographics, and commodity demands are slowly reshaping the U.S. farm workforce. Between 2000 and 2014, the unauthorized share of the U.S. farm workforce decreased from 55 percent to 47 percent, largely reflecting the arrival of fewer new unauthorized workers from Mexico in the wake of the 2008–09 recession. As a result, the hired farm workforce is aging and settling into life in the United States, where many workers now live with families that include U.S.-born children.

Seasonal farm work is usually a decade-long job rather than a lifetime career, and the slowdown in the arrival of newcomers has forced farm employers to adjust. These adjustments can be summarized as the 4-S strategies: *satisfying* current workers to retain them, *stretching* their output by providing productivity-increasing aids, *substituting* machines for workers, and *supplementing* current workers with H-2A guest workers. In 2000, most new farm workers were unauthorized; today, many are legal H-2A guest workers.

Immigration policy will largely determine which of the 4-S strategies dominates. If the status quo is maintained, farm employers will likely continue to offer bonuses and other incentives to retain their current workers, while introducing mechanical aids to make them more productive. The substitution of machines for workers—already a reality in much of the agricultural industry—is often a longer term process marked by the purchase of technology and changes to plants to make mechanical harvesting easier. Supplementing the aging workforce with younger H-2A guest workers requires farm employers to demonstrate their inability to find suitable U.S. workers, offer guest workers free housing, and pay a superminimum wage. While H-2A workers already make up a growing share of the farm workforce, policy changes to ease these H-2A program requirements would likely increase the employment of guest workers even more dramatically—with the potential to affect U.S.- and foreign-born non-H-2A workers alike.

As the U.S. farm workforce changes, more and better data are required to understand these new dynamics and to provide a benchmark for the assessment of labor shortage claims and

the impact of more guest workers. Federal and state governments should consider redoubling their support for increased workforce data collection and analysis, and for research into productivity-increasing and labor-saving technologies.

I. Introduction

The U.S. agricultural industry has long employed foreign-born workers, particularly to fill seasonal jobs on fruit and vegetable farms. Many of these immigrant farm workers are employed on fewer than 10,000 large farms across the United States.[1] Approximately three-fourths of the U.S. farm workforce was born abroad, and a significant share is unauthorized.[2] Faced with a slowdown in migration from Mexico and political uncertainty in the United States regarding changes to the immigration system and enforcement,[3] many farm employers are adjusting using the 4-S strategies of *satisfying* current workers to retain them, *stretching* output by providing productivity-increasing aids, *substituting* machines for workers, and *supplementing* current workers with guest workers. One result is a significant increase in the use of the H-2A program, which is slowly reshaping the agricultural workforce—with the potential to affect both U.S.- and foreign-born non-H-2A workers.

Seasonality and the Immigrant Workforce

The major factor shaping the farm labor market is its seasonality: agriculture's biological production requires more workers at some times of the year than others. As different types of farms developed across the United States, each found a different way to meet seasonal labor demands.[4] On farms in Northeastern and Midwestern states, large farm families and an occasional hired hand produced crops and livestock; such farms became fewer and larger as labor-saving technology spread and family members increasingly found employment off the farm. In the Southeast, plantations producing nonperishable and long-season cotton and tobacco relied on slave labor, followed by sharecroppers until cotton-harvesting machines displaced them in the 1940s and 1950s. And in Western states, such as California, cattle grazing and dryland wheat farming[5] gave way to fruit production following the completion of the transcontinental railroad in 1869, which lowered transportation costs and made fruit the more profitable commodity. To meet peak seasonal labor demands, these farms first employed Chinese workers who had helped build the railroad, followed by Japanese and South Asian laborers, and both early in the 20th century and from midcentury on, Mexican hired workers. The availability of these migrant workers made it unnecessary to break up the large farms that developed from land grants,[6] resulting in a system of factories in the field that rely heavily on foreign-born seasonal workers.

Data from the U.S. Department of Labor's National Agricultural Worker Survey (NAWS) show that nationwide, farm workers are now mostly Mexican-born men.[7] The NAWS, which was launched in 1989 to identify possible farm labor shortages, found that the Mexican-born share of U.S. crop workers was 55 percent in 1989–90, rising to 80 percent in 1999–2000, before declining again to 68 percent in 2013–14.[8] The unauthorized share of all farm workers was approximately 10 percent in 1989–90, peaked around 55 percent in 1999–2000, and was 47 percent in 2013–14.[9]

In addition to seasonal fluctuations in labor needs and heavy reliance on an immigrant workforce, agriculture has traditionally differed from other U.S. industries in how the sector recruits workers, remunerates them for their work, and seeks to retain experienced and productive workers.

- ***Recruitment.*** Workers can be hired directly by farm operators or be brought to farms by nonfarm entities such as custom harvesters and farm labor contractors. Since most foreign-born farm workers do not speak English, and many farmers do not speak Spanish, the job matcher is often a bilingual intermediary. Directly hired crew bosses or farm labor contractors frequently recruit crews of workers by asking current employees to refer qualified friends and relatives. Supervisors and crew bosses, many of whom have climbed the job ladder from hoeing or harvesting to foreman, are then expected to maintain their crews at full strength and monitor the pace and quality of work.

- ***Remuneration.*** While there are many seasonal professions, from teaching to professional sports, seasonal farm jobs are unusual in that they offer few monetary or other benefits to compensate for the fact that workers are employed less than full time. Most farm jobs pay hourly wages or monthly salaries, with managers monitoring the speed and quality of the work performed. For some commodities that are difficult to monitor, such as fruit that workers harvest in trees, many employers use incentive or piece-rate wage systems (e.g., payment of $20 to pick a 1,000 pound bin of apples). Piece-rate systems incentivize working quickly without close monitoring, while also creating a delicate balance between the government-set minimum hourly wage, the employer-set piece rate, and the number of units a worker must complete per hour or day to earn at least the minimum wage.[10]

- ***Retention.*** The seasonal nature of agriculture means that most workers are employed less than a full year on a farm, making retention both during the season and from one season to the next a key issue. Because workers must learn to distinguish ripe and unripe produce and to work quickly, two or more seasons may be required to be fully proficient. Yet the informal and often indirect nature of farm employment means that most farmers do little to maintain contact with workers during the off season.

II. Immigrants in an Evolving U.S. Agriculture Industry

Agriculture—the process of producing food and fiber on farms—serves as the keystone of the much larger food system. This system includes input industries such as seed, fertilizer, and equipment firms and the output sector that packs, processes, and distributes food and fiber to consumers. While less than one-sixth of food-system jobs are on farms,[11] agricultural labor features prominently in discussions of immigration policy and, particularly, authorized and unauthorized low-skilled foreign labor in the United States.

The average number of jobs for hired workers[12] on U.S. farms has been relatively stable at between 1.1 million and 1.4 million over the past decade, and the U.S. Department of Labor projects similar employment levels for the near future (see Table 1). This stability, however, belies significant shifts within the industry. As the cultivation of labor-intensive commodities (such as strawberries) expands and creates more jobs, labor-saving mechanization eliminates jobs in other commodities (such as raisin grapes). Still other jobs that used to be done in packing houses by nonfarm workers, such as the preparation of lettuce and melons for market, are now performed in the field by farm workers.

Farm workers are concentrated in a few states. California looms large in discussions of farm labor because the state produces many labor-intensive and high-value fruits and vegetable

Table 1. U.S. Average Agricultural Employment (in thousands), 2004, 2014, and 2024

Sector and Employment Type	2004	2014	2024	Change	
				2004–14	2014–24
Agricultural Employment (total)	2,111	2,138	2,027	1%	-5%
Hired Wage and Salary Workers	1,149	1,384	1,307	20%	-6%
Share of Total Employment	54%	65%	64%		
Farm Operator and Family Members	962	754	720	-22%	-5%
Share of Total Employment	46%	35%	36%		

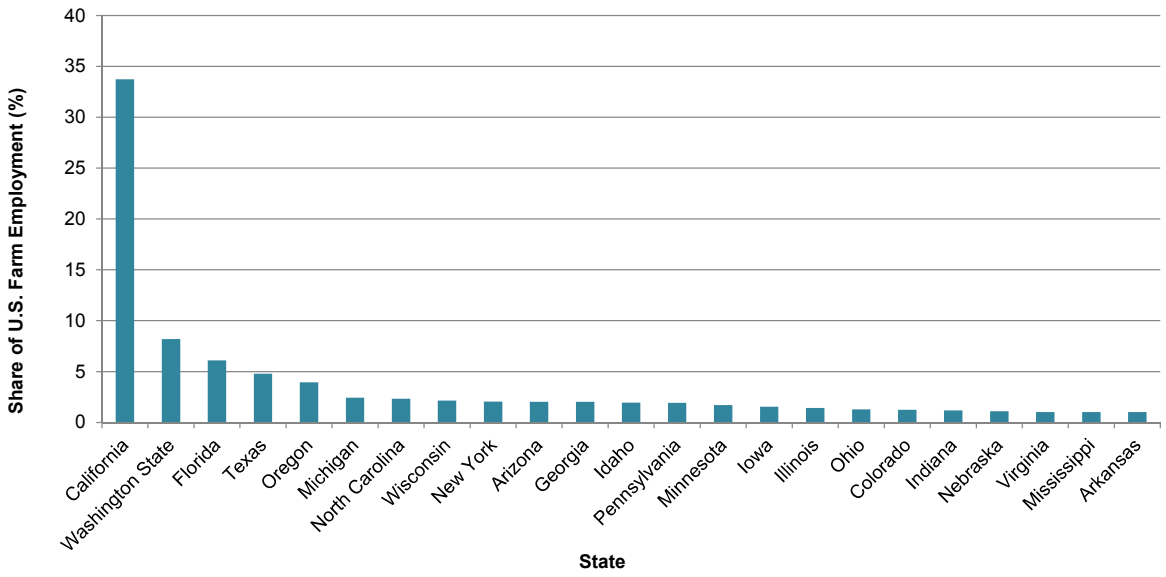
Notes: Farm Operator and Family Member (i.e., self-employed) projections are based on the U.S. Census Bureau's Current Population Survey (CPS), which including forestry, fishing, and hunting, as well as agriculture.
Source: U.S. Department of Labor, Bureau of Labor Statistics, "Employment Projections: 2014–24 News Release" (news release, December 8, 2015), www.bls.gov/news.release/archives/ecopro_12082015.htm.

crops. In 2015, California had 34 percent of average U.S. farm employment, followed by Washington State, Florida, Texas, and Oregon, which each had between 3 percent and 8 percent of average employment (see Figure 1).[13] Another 18 states had more than 1 percent of average U.S. farm employment.

A. Changing Immigration Patterns, Workforce Demographics, and Production Strategies

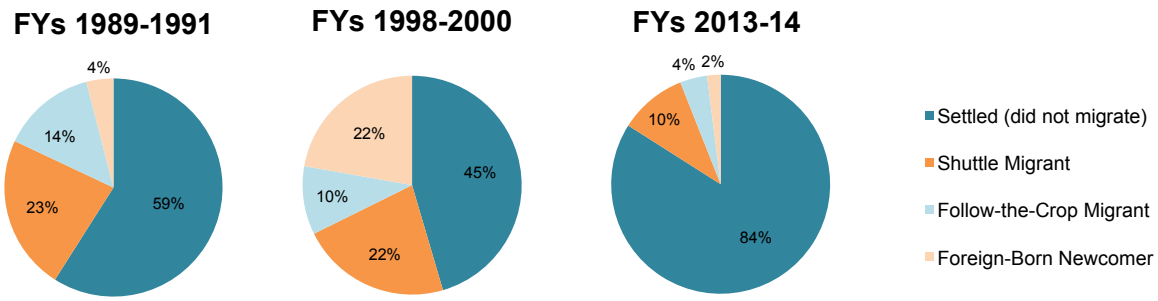
Though Mexican immigrants still comprise the largest share of the foreign-born farm worker population in the United States, the

Figure 1. State Shares of Average U.S. Farm Worker Employment, 2015



Notes: Shares are shown for all states with more than 1 percent of the total U.S. crop workforce. Data are for NAICS 11 and include forestry, fishing, and hunting as well as agriculture.
Source: U.S. Department of Labor, Bureau of Labor Statistics, "Quarterly Census of Employment and Wages—Private, NAICS 11, All States and U.S. 2015 Annual Averages, All Establishment Sizes," updated June 2, 2016, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=0&year=2015&qtr=A&own=5&ind=11&supp=0.

Figure 2. Mobility of the U.S. Crop Workforce, by Migrant Type, Fiscal Years (FYs) 1989–91, 1998–2000, and 2013–14



Notes: Settled crop workers are employed at locations within 75 miles of their usual residence. Shuttle migrants have a home base where they do not engage in farm work and a farm work location that is more than 75 miles from home; they may hold multiple farm jobs, but these are within 75 miles of each other. Follow-the-crop migrants have at least two farm jobs that are more than 75 miles apart. Newcomers are foreign-born workers who have been in the United States for less than a year at the time they were interviewed.
Source: U.S. Department of Labor, Employment and Training Administration, "The National Agricultural Workers Survey—Table 1: Hired Crop Worker Demographics, National Estimates, Five Time Periods," accessed March 1, 2017, www.doleta.gov/agworker/pdf/Table-1_NAWS_National_Demographic_Characteristics_Five_Time_Periods.xlsx.

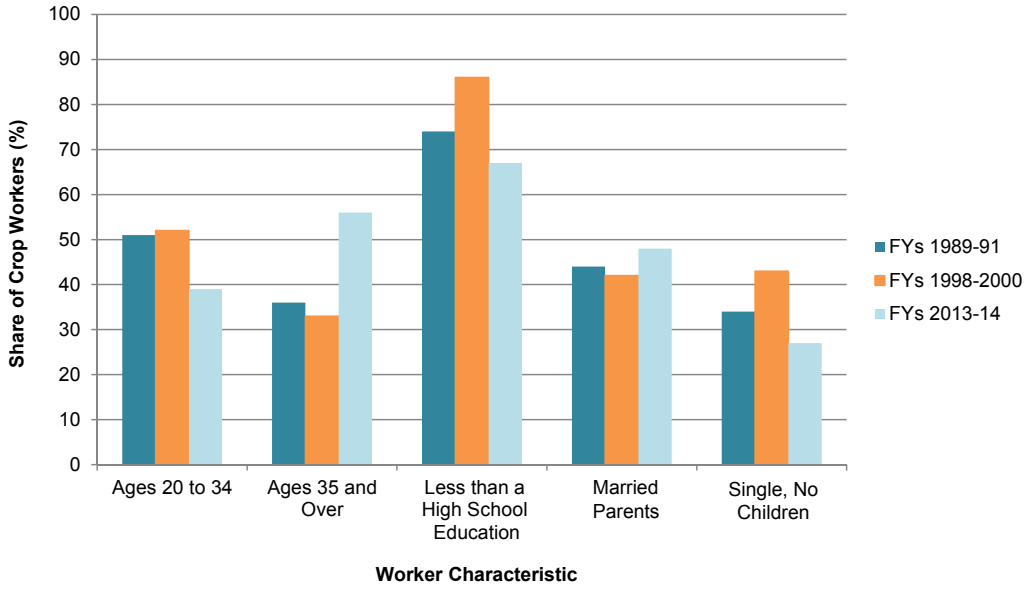
slowdown of migration from Mexico to the United States in the wake of the 2008–09 financial crisis, improving conditions in rural Mexico (including rising education levels), and stepped-up enforcement at the U.S.-Mexico border have had a noticeable impact on the availability of young Mexican men looking for work on U.S. farms.

The farm labor workforce is also changing in terms of its mobility. Though there is no single federal definition of a migrant farm worker, the NAWS considers workers to be migrants if they have moved at least 75 miles from their usual place of residence for a farm job. The NAWS has found a declining share of farm workers to be migrants: about 16 percent in both the United States overall and in California in 2013–14 (see Figure 2).[14] Of those who migrate to do crop work, 23 percent follow the crops by having two or more U.S. farm jobs 75 miles apart, while 37 percent shuttle between homes in Mexico, where they do not do farm work, and farm jobs in the United States.[15] Similarly, the share of newcomers—persons who were in the United States for less than a year before being interviewed for the NAWS—has decreased. The newcomer share of crop workers was less than 5 percent in 1989–91, rose to 22 percent in 1998–2000, and declined to 2 percent in 2013–14.[16]

In contrast to the more mobile foreign-born worker population of previous decades, the NAWS now portrays a predominantly Mexican-born crop workforce that has largely settled in the United States, has formed or united families, and that finds employment with one fruit and/or vegetable farmer during the year. With fewer young newcomers arriving, the U.S. crop workforce has also begun to age (see Figure 3). In 1989–91 and 1998–2000, more than half of U.S. crop workers were in the 20-to-34 age group, while in 2013–14 the share of workers in this age group had decreased to 39 percent.[17] At the same time, the share of workers over the age of 35 has risen from 36 percent and 33 percent in 1989–91 and 1998–2000, respectively, to 56 percent in 2013–14.

The NAWS has also shown a number of other demographic shifts. In 1990, U.S. crop workers had an average of eight years of schooling, with education levels decreasing to seven

Figure 3. U.S. Crop Worker Characteristics (share of total workers), FYs 1989–91, 1998–2000, 2013–14



Source: U.S. Department of Labor, Employment and Training Administration, "The National Agricultural Workers Survey—Table 1: Hired Crop Worker Demographics."

years in 2000, before rising again to eight years in 2013–14.[18] The share of workers who speak English well fell from around one-quarter in 1990 to less than one-fifth in 2000, but rebounded to approximately one-third in 2013–14.[19] As of 2013-14, 48 percent of U.S. crop workers were married parents, compared to 27 percent who were single with no children.[20] And median family income had risen over the past two decades from the $15,000-to-$17,500 range to the $20,000-to-$25,000 range,[21] both as a result of rising income levels[22] and because many families now have two wage earners. A rising share of U.S. crop worker families, approximately half in 2013–14, receive some type of means-tested assistance, such as Medicaid or Supplemental Nutritional Assistance Program (SNAP) benefits, reflecting the fact that there are now many mixed-status farm worker families with noncitizen and/or unauthorized parents and U.S.-citizen children who are eligible for health and other benefits.[23]

These changes in personal and family characteristics have accompanied shifts in the professional profile of U.S. crop workers. With the slowdown in Mexico-U.S. migration after the 2008–09 recession decreasing the number of newcomers entering the U.S. farm labor market, workers' average number of years of U.S. farm experience has risen from eight years in 2000 to 14 years 2013–14.[24] The types of work being done have also changed: from mostly vegetable crop work in 1990 to mostly fruit production today, and from 40 percent of jobs in harvesting in 1990 to less than one-quarter in 2013–14.[25] Indeed, the most common jobs today are semi-skilled, such as equipment operator, with one-third of U.S. farm workers holding such technical production jobs when interviewed for the NAWS in 2013–14.

When asked, most crop workers stated that they plan to continue to do farm work for at least five more years. In 1990, 65 percent of workers said they would continue to do farm work as long as they could, a figure that dipped to 56 percent in 2000 before rising again to more than 75 percent in 2013–14.[26] With so many looking ahead to long careers in agricul-

ture, their capacity to do so may depend on the pace at which farmers invest in back-saving mechanical aids.

B. Employer Adaptation to the Changing Face of Farm Labor

After decades of unauthorized migration from Mexico, farm employers became accustomed to finding with relative ease the workers they needed when they needed them. In California, many farmers relied on labor contractors to bring workers to their farms, and competition between contractors held wages close to the minimum wage. This system meant few work-related benefits were offered to crop workers beyond those required by law, such as social security and workers compensation insurance. In response to the dwindling arrival of newcomers from Mexico, farm employers are increasingly pursuing four strategies to meet their labor needs: satisfy, stretch, substitute, and supplement.

1) ***By trying to satisfy current workers, some farmers aim to retain them longer.*** Data from the NAWS show an aging crop workforce with many workers having been employed by their current farm employer for an average of seven years.[27] Many farmers believe that the supply of labor inside U.S. borders is fixed or inelastic, and that higher wages will not necessarily attract or retain more farm workers. Instead, some are improving the training of first-level supervisors to reduce favoritism and harassment. Others are offering benefits, such as low-cost health care to employees and their families, or bonuses for staying until the end of the season. Bonuses that add 5 percent to 10 percent to the earnings of workers who stay through the season generally offer a less expensive retention strategy than raising wages overall.[28] However, there may be physical limits to how long farm workers can continue to lift and carry heavy bags of fruits and vegetables in 100 degree heat as their average age approaches 40.

2) ***Farm employers hope to stretch the current workforce with mechanical aids that increase productivity and make farm work easier.*** Because most fruits and vegetables are more than 90 percent water, hand harvesting is key to avoid damaging or losing a significant share of the crop. Harvesters spend much of their time carrying produce down ladders to bins or to the end of rows to receive credit for their work. The introduction of smaller trees means fewer ladders and faster picking, while hydraulic platforms can be used to reduce the need to fill 50 to 60 pound bags of apples and oranges from ladders. Slow-moving conveyor belts that travel ahead of workers harvesting berries, broccoli, and other vegetables reduce the need to carry harvested produce, making workers more productive, reducing injuries, and making harvesting jobs more accessible to older workers and women.

3) ***Substituting or replacing workers with machines: a strategy that has met with mixed success***. The production of the big-five U.S. crops—corn, soybeans, wheat, cotton, and rice—has been mechanized, and there have been enormous labor-saving changes in livestock production, including robotic milking systems. Most nuts are also now harvested mechanically. But fresh fruits and vegetables have defied mechanization for several reasons. Many are fragile, and human hands are far gentler than mechanical fingers. Machines are also fixed costs, meaning farmers must pay for a $200,000 harvesting machine whether there are apples to pick or not; workers, by contrast, are a variable cost and need not be paid if storms or disease destroy the apple crop. Hand harvesting, in

Box 1. As Demand for Strawberries Booms, Farm Employers Look for Ways to Maintain Their Workforce and Maximize Production

The strawberry industry illustrates in a number of ways the broader immigration and farm labor conundrum. Strawberries are a labor-intensive commodity produced mostly in California, where production has expanded to meet consumer demand. For most of the 20th century, fresh strawberries were a seasonal commodity produced locally. New varieties allowed berry farmers to supply berries year round, and the ready availability of berry pickers encouraged a near tripling of U.S. strawberry production over the past quarter century.

With few foreign suppliers able to deliver the perishable berries to U.S. consumers at competitive prices, California produces more than 90 percent of U.S. strawberries. The slowdown in Mexico-U.S. migration has forced employers to think strategically about how to obtain pickers. While experiments are underway to develop mechanized ways to harvest strawberries, most farms still rely on hand harvesting. Workers wheel small carts between two rows of plants, picking from both rows. When the flat is full, workers take it to a checker to receive credit, get an empty flat, and resume picking. Many larger growers have put conveyor belts in their fields onto which pickers can place trays of berries, reducing the amount of time spent walking and increasing worker productivity.

However, berry picking is generally a one- or two-decade-long job rather than a lifetime career, and further aids will be needed if employers are to persuade workers to become career berry pickers. And while picking crews often include several members of a family, the children of pickers who have been raised and educated in the United States generally opt to find other lines of work. The arrival of foreign-born newcomers eager for work thus remains of keen interest to strawberry farmers.

Sources: U.S. Department of Agriculture, "Economic Research Service—U.S. Strawberry Industry (95003)," updated June 2013, http://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=1381; University of California, Davis, "California Agriculture and Labor 2014," *Rural Migration News* 20, no. 4 (October 2014), https://migration.ucdavis.edu/rmn/more.php?id=1862.

short, offers much needed flexibility in the production of some commodities.

4) Employers increasingly supplement their current workers via other labor sources. The primary route through which farm employers have sought to plug gaps in their crop workforce is the H-2A Temporary Agricultural Workers program. For decades after its creation in the 1950s, employer use of the program remained relatively small, but began to increase in the 2000s (see Section III). H-2A visa holders now make up approximately 8 percent of average annual employment on U.S. crop farms, up from 2 percent in the 1990s.[29]

III. The H-2A Program: An Increasingly Popular Source of Newcomers

The H-2 program was created in 1952 by the *Immigration and Nationality Act* (INA) and later split into two distinct programs by the *Immigration Reform and Control Act of 1986* (IRCA). The first, H-2A, is intended for temporary agricultural workers,[30] while H-2B comprises temporary workers in nonfarm industries and occupations. While the H-2B program sets a cap for the number of visas that can be granted each fiscal year (FY), the number of H-2A visas was left uncapped amid concerns that enforcement measures mandated by IRCA would significantly diminish the number of unauthorized migrants in agriculture and increase demand for H-2A workers.

Farmers are allowed to hire H-2A guest workers if they anticipate labor shortages. These workers can be recruited from a list of 85 eligible countries issued by the U.S. Department of Homeland Security (DHS),[31] though most are Mexican. Because U.S. workforce antidiscrimination laws do not apply to the recruitment of H-2A workers abroad, farmers can specify that they will hire only young, male workers with farm experience. Farm employers are supposed to pay any costs incurred by guest workers for the benefit of their U.S. employer, but migrant advocates report that H-2A workers regularly pay fees to secure their U.S. jobs.[32]

In order to receive government certification to employ H-2A workers, employers must satisfy three major criteria. First, farmers must attempt to recruit U.S. workers and, should any apply for the job, explain why these domestic workers were not hired. Some farmers, convinced that most U.S. workers will not remain with the farm for the entire season, may try to discourage U.S. workers from applying. Second, farmers must provide free housing to H-2A guest workers and out-of-area U.S. workers. This poses a particular challenge in metropolitan areas, such as those in which many Californian farms are found, which often have a shortage of affordable housing and restrictions on building more. And finally, the law requires that the presence of H-2A workers should not "adversely affect" U.S. workers. The government enforces this no-adverse-effect requirement by setting a superminimum wage, called the Adverse Effect Wage Rate (AEWR), which varies from state to state; for example, in 2016 the AEWR was $11.89 an hour in California, while the state minimum wage was $10 an hour.

A. Slow Adoption and Recent Growth

In the early days of the H-2A program, sugar cane growers in Florida and apple growers along the East Coast were the primary employers of H-2A workers. Beginning in the mid-1990s, North Carolina tobacco farmers became the largest users of the program after former government officials created an association that, for a fee, would recruit workers in Mexico, bring them to North Carolina, and deploy them to farmers. This turnkey and loyal H-2A labor force proved attractive to farmers, especially as the workers gained experience by returning year after year.

However, IRCA did not have the anticipated effect of eliminating unauthorized farm workers for several reasons, and illegal immigration increased instead of decreasing. There was relatively little interior enforcement after IRCA was enacted and, once across the border, migrants found it relatively easy to obtain false documents to present to employers. This, coupled with IRCA's general and Special Agricultural Worker (SAW) programs to allow unauthorized migrants with farm work experience to adjust to legal immigrant status, meant that both authorized and unauthorized Mexican workers were soon a familiar presence in most states.

A second and related outcome was that the H-2A program expanded more slowly than expected. Farmers found it easier to hire unauthorized workers than to hire H-2A workers. In addition to being an abundant and growing pool of labor, employers were not required to provide unauthorized workers housing or to pay them a special minimum wage. As the Florida sugar cane harvest mechanized in the early 1990s, the annual number of H-2A visas issued for workers nationwide remained less than 10,000, with most employed to pick apples in New England or herd sheep in western states.[33]

By the mid-1990s, approximately half of workers on U.S. farms were unauthorized—a higher share than before IRCA was enacted. Many farm employers pushed for an alternative to the H-2A program that would have allowed them to hire guest workers with fewer bureaucratic requirements and without the need to provide housing. Congress considered several proposals, but President Clinton promised to veto any new agricultural guest worker program and none was enacted. Instead, following the elec-

tion in 2000 of President George W. Bush, farm employers and worker advocates shifted to negotiate the *Agricultural Job Opportunities, Benefits, and Security Act* (AgJOBS), an IRCA-like effort to transition unauthorized farm workers into legal status and make it easier to hire guest workers, though this too was ultimately never enacted.[34]

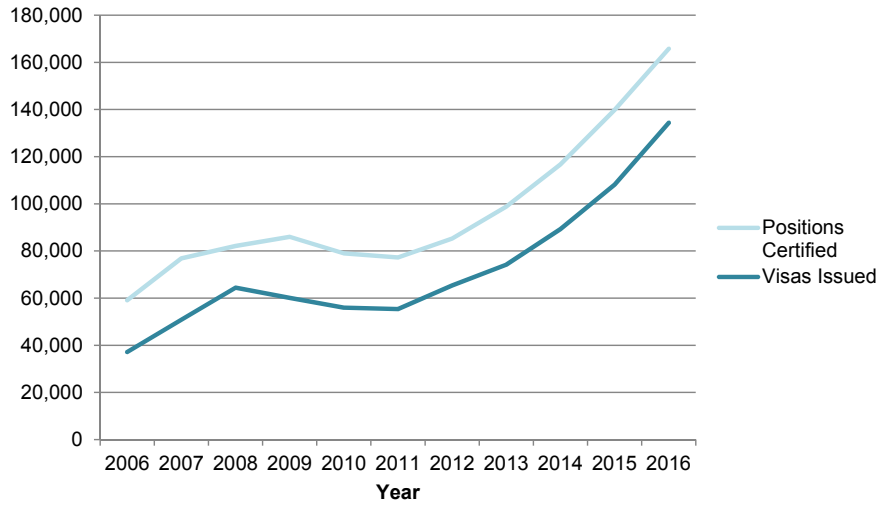
In the absence of new legislation, and following the slowdown in Mexican migration to the United States, the H-2A program began to expand more steadily (see Figure 4). In the course of a decade, the number of farm jobs certified by the U.S. Department of Labor to be filled by H-2A workers doubled to approximately 140,000 jobs on 7,500 farms in FY 2015.[35] That year, the largest 300 farm employers each requested certification to fill approximately 100 or more jobs with H-2A workers, accounting for almost half of all certifications.[36] The average duration of jobs that employers sought to fill with H-2A workers was 170 days, which adds up to either 34 five-day weeks or 28 six-day weeks.[37]

Many of the largest employers of H-2A workers are associations and farm labor contractors that recruit workers in Mexico and move them from farm to farm in the United States. The North Carolina Growers Association is the largest association, bringing more than 10,000 guest workers to work on North Carolina tobacco and vegetable farms.[38] The Washington Farm Labor Association is second largest, bringing workers to the state to work in fresh apple and cherry production. Many of the other large users of the H-2A program are labor contractors, including Fresh Harvest in California and Rodrigo Gutierrez-Tapia in Florida.

Because some H-2A workers fill more than one job, more jobs are usually certified than H-2A visas issued (see Figure 4). In recent years, for every 130 farm jobs certified, the U.S. Department of State has issued approximately 100 H-2A visas.[39]

The expansion of the H-2A program is due in part to the fact that it removes uncertainty

Figure 4. H-2A Positions Certified and H-2A Visas Issued, FY 2006–16



Source: U.S. Department of Labor, Employment and Training Administration, Office of Foreign Labor Certification (OFLC), "OFLC Performance Data—Annual Performance Reports," accessed July 28, 2017, www.foreignlaborcert.doleta.gov/performancedata.cfm; U.S. Department of State, "Nonimmigrant Visa Statistics—Nonimmigrant Visas by Individual Class of Admission," accessed March 1, 2017, https://travel.state.gov/content/visas/en/law-and-policy/statistics/non-immigrant-visas.html.

about whether or not a sufficient workforce will be available when needed—a pressing concern, particularly following the recession and the slowdown of Mexican migration to the United States. Most H-2A workers arrive on the date specified by the employer and depart at the end of the season. Increased enforcement (e.g., I-9 form audits) has also led some employers who terminate unauthorized workers after an audit and to replenish their workforce via the H-2A guest worker program.[40] And while many first-time H-2A workers may have little experience doing the work they are expected to perform, by returning year-after-year their productivity rises.

B. Implications for the Broader Agriculture Industry

Amid the aging of the U.S. crop workforce and the expansion of the H-2A program, the iron triangle between minimum wages, piece rates, and productivity standards may be stretched out of shape. Minimum wages are rising in many states, such as California where the minimum wage will rise to $15 an hour by 2022. If piece rates do not rise, harvesters will have to work faster to earn the minimum wage. For example, if the minimum wage is $15 an hour and the piece rate stays at $20 a bin, workers must pick six rather than four bins to earn the higher minimum wage of $120 in an eight-hour day. Consequently, if the piece rate does not rise with the minimum wage, the composition of the labor force may change to include only those who can pick fast enough to earn the higher minimum wage at the old piece rate. As the H-2A program expands, offering employers younger workers, expectations about how much work must be accomplished to earn ever-higher minimum wages could make it harder for aging U.S.- and foreign-born non-H-2A workers to keep their jobs.

IV. Recommendations

The farm labor market is changing as fewer new workers arrive to replace those who age out of farm work or find nonfarm jobs. Amid uncertainty over the future direction of U.S. immigration policy, farmers are pursuing the 4-S strategies to satisfy current workers, stretch their productivity with mechanical aids, substitute machines for workers where possible, and supplement current workers with H-2A guest workers.

In this time of change, better data collection and support for mechanical aid and mechanization research can help ease an industry through transition. These recommendations are made in addition to perennial suggestions, such as improving enforcement of labor, safety, tax, and other laws that protect workers and ensure the efficient spending of the federal funds devoted to improving the education, health, housing, and training of farm workers.

A. Improved Data Collection and Use

The NAWS provides the clearest picture of who farm workers are, but covers only non-H-2A crop workers. With H-2A guest workers now filling more farm jobs, the window the NAWS gives us into the lives and livelihoods of farm workers is shrinking. The NAWS mostly interviews workers hired directly by farmers and employed in nonharvesting jobs in fruit and vegetable agriculture, but provides less information on harvest workers brought to farms by labor contractors. Expanding the NAWS to include H-2A and livestock workers, and redoubling efforts to interview harvest workers brought to farms by contractors, could improve the quality of data available to inform evidence-based policies.

Researchers might also explore in more depth employer-reported administrative data. Much of the detail on earnings that is released each month along with the unemployment rate comes from employers as they pay their unemployment insurance (UI) taxes. Since farm employment is concentrated on large farms that must pay UI taxes and major farming states such as California require all farmers to pay UI taxes, this data has much to offer researchers looking to study all workers employed on farms for wages.

B. Increased Support for Research

Research is a long-term investment with an uncertain payoff. The development of crops that ripen uniformly so that they can be picked by machine or of trees that are shorter and vegetables that are taller to make picking easier may require a decade or more. As of 2008, federal and state governments spent more than $5 billion a year on agricultural and food-related research,[41] much of which is conducted at land-grant universities to raise yields and to make crops and livestock more resilient to diseases and pests. During the 1960s and 1970s, government funds were also used to develop machines to replace farm workers. Yet as a steady supply of newcomers entering the United States over the past two decades, there was little economic incentive to research the mechanical harvesting of crops. The abundance of labor, coupled with union-filed suits charging that taxpayer money was being used to develop machines to displace farm workers, stopped government support for mechanization research in the 1980s.

Economic incentives are again shifting to favor more agricultural research that takes into consideration both the availability and cost of labor. Perhaps the clearest signal of change has comes from states where laws have been proposed to raise the minimum wage in the near future. Mechanization[42] and the development of productivity-maximizing aids are again a priority for employers who are finding it harder to recruit workers and expect up to a 50 percent increase in the wages of hand workers. Signs of change on the immigration front are less clear and raise questions about how farmers would weigh the tradeoff between investing in housing for H-2A guest workers and investing in machines to replace hand workers.

Endnotes

1 The 2012 Census of Agriculture (Table 4) reports that 566,000 U.S. farms had $27 billion in expenses for hired farm labor that year. A smaller number of farms—some 8,200—had hired labor expenses of $500,000 or more, collectively accounting for almost $13 billion or almost half of total hired labor expenses. Unemployment insurance (UI) data suggest an even greater concentration of workers; during the first quarter of 2016, fewer than 500 farm employers (NAICS 11) hired 250 or more workers, for a collective average of 230,000 of the overall 1.2 million workers employed during that period. Figures are based on author analysis of data from U.S. Department of Labor (DOL), Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," updated March 7, 2017, https://data.bls.gov/cew/apps/data_views/data_views.htm.

2 U.S. Department of Agriculture (USDA), Economic Research Service, "Farm Labor—Background," updated September 27, 2016, www.ers.usda.gov/topics/farm-economy/farm-labor/background.aspx.

3 During the campaign for the 2016 presidential election, immigration proved to be one of the sharpest points of contrast between Republican and Democratic candidates. The election of Donald Trump has created uncertainty over potential changes to immigration policies among both migrant farm workers and employers heading into the 2017 growing season. See, for example, Associated Press, "Trump's Deportation Vow Spurs California Farmers into Action," *Los Angeles Times*, www.latimes.com/business/la-fi-farmers-deportation-20170105-story.html.

4 For more details on these farming systems, see Philip L. Martin, *Promise Unfulfilled: Unions, Immigration, and the Farm Workers* (Ithaca, NY: Cornell University Press, 2003).

5 Dryland wheat farming involved planting in the fall and, if there was sufficient rain, harvesting in the spring.

6 The Tejon Ranch in the southern San Joaquin Valley, with 270,000 acres that were originally four Mexican land grants, is an example of a large farm that has persisted. See Tejon Ranch, "About Tejon Ranch," accessed January 2, 2017, http://tejonranch.com/the-company/the-ranch/.

7 For information on the National Agricultural Worker Survey (NAWS), as well as NAWS data, see DOL, Employment and Training Administration, "The National Agricultural Workers Survey," updated October 17, 2016, www.doleta.gov/agworker/naws.cfm.

8 DOL, Employment and Training Administration, *Findings from the National Agricultural Workers Survey (NAWS) 2013-2014: A Demographic and Employment Profile of United States Farmworkers* (Washington, DC: DOL, 2016), www.doleta.gov/agworker/pdf/NAWS_Research_Report_12_Final_508_Compliant.pdf; DOL, Employment and Training Administration, *Findings from the National Agricultural Workers Survey (NAWS) 2011-2012: A Demographic and Employment Profile of United States Farmworkers* (Washington, DC: DOL, 2016), www.doleta.gov/agworker/pdf/NAWS_Research_Report_11_NOT_508-Compliant_1.12.2017.pdf.

9 Ibid.

10 In some states, court cases have encouraged a switch from piece-rate to hourly wages. For example, in California *Gonzalez v. Downtown LA Motors* held that workers who are paid piece-rate wages must be paid at least the minimum wage when not doing piece-rate work, while *Bluford v. Safeway Stores* held that piece-rate employees must be paid at their average piece-rate earnings for rest periods required by law. Most piece-rate workers earn more than the minimum wage when doing piece-rate work but, before the *Gonzalez* decision, often earned less when doing other types of agricultural work. Prior to the *Bluford* decision, many employers did not pay piece-rate workers for waiting and rest time because high piece-rate earnings meant that they earned more than the minimum wage even when rest periods were not paid for separately. See University of California, Davis, "California Piece Rates, Marijuana," *Rural Migration News* 22, no. 1 (January 2016), https://migration.ucdavis.edu/rmn/more.php?id=1939.

11 A far greater share (66 percent) is in food services and restaurants. For a breakdown of the industries that make up the U.S. food system, see USDA, Economic Research Service, "Agriculture and its Related Industries Provide about 10 Percent of U.S. Employment," updated June 17, 2016, www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=58282.

12 Data on U.S. farm labor usually distinguish between two major types of workers: farm operators and unpaid family members, on one hand, and hired workers who are paid hourly, on a piece rate, or salary on the other. This second group is the focus of this report.

13 Average employment is calculated by summing the number of workers employed each month, then dividing by 12 months. Data for average U.S. farm employment is based on employer reports when paying UI taxes. While some states do not require smaller farmers to pay UI taxes on farm worker wages, UI-based employment data cover an estimated 86 percent of U.S. hired farm workers. See DOL, Bureau of Labor Statistics, "Quarterly Census of Employment and Wages—Private, NAICS 11, All States and U.S. 2015 Annual Averages, All Establishment Sizes," updated June 2, 2016, https://data.bls.gov/cew/apps/table_maker/v4/table_maker.htm#type=0&year=2015&qtr=A&own=5&ind=11&supp=0.

14 DOL, Employment and Training Administration, *Findings from the NAWS 2013-2014*, 5.

15 Ibid., 6.

16 DOL, Employment and Training Administration, *Findings from the NAWS 2013-2014*, 4; DOL, Employment and Training Administration, *Findings from the NAWS 2011-2012*, 6.

17 DOL, Employment and Training Administration, "The National Agricultural Workers Survey—Table 1: Hired Crop Worker Demographics, National Estimates, Five Time Periods," accessed March 1, 2017, www.doleta.gov/agworker/pdf/Table-1_NAWS_National_Demographic_Characteristics_Five_Time_Periods.xlsx.

18 DOL, Employment and Training Administration, *Findings from the NAWS 2013-2014*; DOL, Employment and Training Administration, *Findings from the NAWS 2011-2012*.

19 Ibid.

20 DOL, Employment and Training Administration, "The National Agricultural Workers Survey—Table 1: Hired Crop Worker Demographics."

21 DOL, Employment and Training Administration, *Findings from the NAWS 2013-2014*; DOL, Employment and Training Administration, *Findings from the NAWS 2011-2012*.

22 Workers interviewed for the NAWS reported that they earned an average $5.25 an hour in the early 1990s, when the federal minimum wage was $4.25. They earned $6.50 an hour in 2000, when the federal minimum wage was $5.15, and they earned $10 an hour 2013-14, when the federal minimum wage was $7.25.

23 In 2016, California made all unauthorized low-income children eligible for Medicaid, called Medi-Cal in California. Since one-third of NAWS workers are interviewed in California, because of its large farmworker population, the overall share of families receiving some type of assistance is likely to rise following this legislative change.

24 DOL, Employment and Training Administration, "The National Agricultural Workers Survey—Table 2: Hired Crop Worker Employment Characteristics, National Estimates, Five Time Periods," accessed March 1, 2017, www.doleta.gov/agworker/pdf/Table-2_NAWS_National_Employment_Characteristics_Five_Time_Periods.xlsx.

25 Ibid.

26 Ibid.

27 Ibid.

28 Wages have, however, increased over the past decade, due in part to legislative changes. For example, California in 2016 enacted legislation that requires overtime pay for farm workers after eight hours a day or 40 hours a week—a move that brings their treatment closer to that of nonfarm workers. See University of California, Davis, "California: Overtime, H-2A," *Rural Migration News* 22, no. 4 (October 2016), http://migration.ucdavis.edu/rmn/more.php?id=1995.

29 In FY 2014, 125,000 H-2A visa holders were in the United States for an average of 6.5 months, equivalent to 54 percent of the year or 67,500 full-time workers. The Department of Labor's Quarterly Census of Employment and Wages (QCEW) reported average annual employment in crop agriculture (NAICS 111) of 557,000 in 2014, plus another 315,000 in crop support services (NAICS 1151), or a total of 872,000. The 67,500 average employment of H-2A workers are equivalent to 8 percent of average employment in crop agriculture. Figures are based on author analysis of data from U.S. Department of Labor, Bureau of Labor Statistics, "Quarterly Census of Employment and Wages," updated March 7, 2017, https://data.bls.gov/cew/apps/data_views/data_views.htm.

30 U.S. Citizenship and Immigration Services (USCIS), "H-2A Temporary Agricultural Workers," updated November 8, 2016, www.uscis.gov/working-united-states/temporary-workers/h-2a-temporary-agricultural-workers; USCIS, "H-2B Temporary Non-Agricultural Workers," updated November 8, 2016, www.uscis.gov/working-united-states/temporary-workers/h-2b-temporary-non-agricultural-workers.

31 For a full list of H-2A eligible countries, see USCIS, "H-2A Temporary Agricultural Workers."

32 The International Labor Recruitment Working Group (ILRWG), *The American Dream Up for Sale: A Blueprint for Ending International Labor Recruitment Abuse* (N.p.: ILRWG, 2013), https://fairlaborrecruitment.wordpress.com/report/. See also U.S. Government Accountability Office (GAO), *The H-2A and H-2B Visa Programs: Increased Protections Needed for Foreign Workers* (Washington, DC: GAO, 2015), www.gao.gov/products/GAO-15-154.

33 U.S. Department of State, "Classes of Nonimmigrants Issued Visas (Detailed Breakdown, Including Crewlist Visas and Border Crossing Cards), Fiscal Years 1987–1991" (data table, U.S. Department of State, Washington, DC, n.d.), https://travel.state.gov/content/dam/visas/Statistics/Non-Immigrant-Statistics/NIVClassIssuedDetailed/NIVClassIssued-DetailedFY1987-1991.pdf; U.S. Department of State, "Classes of Nonimmigrants Issued Visas (Detailed Breakdown, Including Crewlist Visas and Border Crossing Cards), Fiscal Years 1992–1996" (data table, U.S. Department of State, Washington, DC, n.d.), https://travel.state.gov/content/dam/visas/Statistics/Non-Immigrant-Statistics/NIVClassIssuedDetailed/NIVClassIssued-DetailedFY1992-1996.pdf.

34 The *Agricultural Job Opportunities, Benefits, and Security Act* (AgJOBS) went through several iterations, and was included in S. 744 in 2013 as a Blue Card Program that would have granted provisional status to unauthorized foreigners who had done at least 100 days or 575 hours of farm work in the 2-year period before December 31, 2012, and would have allowed them to apply for lawful permanent residence (aka a green card) if they continued to do farm work for another three to five years. Under S. 744, the H-2A program would have been replaced by two new guest worker programs: 1) the W-3 program would have resembled the H-2A program, in that it would tie a foreign worker to a particular U.S. farm employer and job for up to three years; and 2) the W-4 was to be an "at will" program that would allow workers, after entering the country with an initial job offer, to "float" from one designated agricultural employer (DAE) to another as long as they were not unemployed more than 60 days. See University of California, Davis, "Immigration Reform: Agriculture," *Rural Migration News* 19, no. 3 (July 2013), http://migration.ucdavis.edu/rmn/more.php?id=1769.

35 DOL, Employment and Training Administration, Office of Foreign Labor Certification (OFLC), *Annual Report 2015* (Washington, DC: DOL, 2015), www.foreignlaborcert.doleta.gov/pdf/OFLC_Annual_Report_FY2015.pdf.

36 DOL, Employment and Training Administration, Office of Foreign Labor Certification, "OFLC Performance Data—Disclosure Data—H-2A Program, FY2015 Disclosure File," accessed March 1, 2017, www.foreignlaborcert.doleta.gov/performancedata.cfm.

37 Ibid.

38 DOL, Employment and Training Administration, Office of Foreign Labor Certification, "H-2A Temporary Agricultural Labor Certification Program – Selected Statistics, FY 2016" (fact sheet, September 30, 2016), www.foreignlaborcert.doleta.gov/pdf/PerformanceData/2016/H-2A_Selected_Statistics_FY2016_Q4.pdf.

39 Data published by the U.S. Department of Homeland Security (DHS) on H-2A admissions are much less useful in estimating the scale of the H-2A program's use because they record each entry. For example, an H-2A worker who lives in Mexico and works in the Yuma, Arizona area is recorded as one admission each day on the way to work in the United States, so that one worker entering daily for 60 days becomes 60 admissions.

40 For example, Gebbers Farms—a 5,000-acre apple and cherry operation north of Wenatchee, Washington—fired 550 workers after a 2009 audit. A year later, the farm was certified to hire 1,200 H-2A workers. See University of California, Davis, "H-2A, ICE, RICO," *Rural Migration News* 16, no. 3 (July 2010), https://migration.ucdavis.edu/rmn/more.php?id=1550_0_4_0.

41 In 2006, public-sector investment in farm machinery and engineering was less than $200 million, versus $1.5 billion spent on crops, $1.3 billion on animals, and almost $1 billion on environmental issues. It should be noted that private-sector spending on food and agriculture research makes up a significant share of total research funding in the industry—slightly more than half in 2008. See Keith O. Fuglie and Andrew A. Toole, "The Evolving Institutional Structure of Public and Private Agricultural Research," *American Journal of Agricultural Economics* 96, no. 3 (2014): 862–83, Figure 3, http://ajae.oxfordjournals.org/content/early/2014/01/20/ajae.aat107.short.

42 Geoffrey Mohan, "As California's Labor Shortage Grows, Farmers Race to Replace Workers with Robots," *Los Angeles Times,* July 21, 2017, www.latimes.com/projects/la-fi-farm-mechanization/.

About the Author

Philip Martin is Professor of Agricultural and Resource Economics at the University of California, Davis. He edits the *Rural Migration News*, testifies frequently before Congress, has served on several federal commissions, and has worked for United Nations agencies on labor and migration issues.

Acknowledgments

This work, and the work of the Migration Policy Institute's U.S. Immigration Policy Program more generally, is supported by the Ford Foundation, John D. and Catherine T. MacArthur Foundation, Open Society Foundations, and the Carnegie Corporation of New York.

Cover Design: April Siruno, MPI
Layout: Liz Heimann, MPI

Suggested citation: Martin, Philip. 2017. *Immigration and Farm Labor: From Unauthorized to H-2A for Some?* Washington, DC: Migration Policy Institute.

The Migration Policy Institute (MPI) is an independent, nonpartisan, nonprofit think tank dedicated to the study of the movement of people worldwide. The Institute provides analysis, development, and evaluation of migration and refugee policies at the local, national, and international levels. It aims to meet the rising demand for pragmatic responses to the challenges and opportunities that migration presents in an ever more integrated world.

WWW.MIGRATIONPOLICY.ORG

MPI
MIGRATION POLICY INSTITUTE

1400 16th Street, NW, Suite 300, Washington, DC 20036
202-266-1940 (t) | 202-266-1900 (f)