US Farm Labor in 2021

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Highlights

US farm employment fell and wages rose in 2020, and these employment down, wages up effects were largest for farm labor contractors (FLCs).

US farm workers are mostly Mexican-born and settled; many have US-born children who rarely follow them into the fields. Mexican H-2A workers are the fresh and flexible blood in the farm workforce.

Covid and rising farm labor costs are accelerating three trends: faster labor-saving mechanization, more H-2A guest workers, and rising imports of fruits and vegetables.

Employment Down, Wages Up

Farm workers can be hired directly by farm operators or be brought to farms by nonfarm crop support service firms such as FLCs. The USDA Farm Labor Survey estimated 613,000 directly hired workers in April 2021, down almost 10 percent from April 2020 and down 26 percent in Florida. USDA reported that US farm worker earnings rose seven percent to $15.19 an hour in April 2021, and rose 11 percent to $17.25 in CA.

More comprehensive unemployment insurance (UI) data that include crop support services tell a similar employment-down, wages-up story. Crop establishments account for 60 percent of total employment of 866,000 in US crop agriculture, and their employment fell one percent between 2019 and 2020, while crop support accounts for 40 percent of total crop employment and fell five percent. Average weekly wages rose seven percent for direct hires to $730 a week and 10 percent for FLC employees to $580 a week. Average employment in animal agriculture rose slightly between 2019 and 2020 to 266,000, and weekly wages rose five percent to $815 a week.

The major farm employment trends of the past decade include:

- Stability in average farm employment of 1.2 million covered by UI, making total farm employment 1.5 million because UI covers 80 percent of US farm workers
- More workers brought to farms by FLCs and other nonfarm crop support firms rather than being hired directly. Since 2009, most workers on CA crop farms have been employees of nonfarm crop support firms.
- H-2A guest workers are 10 percent of average employment in US crop agriculture and a higher share of crop workers in the southeastern states

Farm Workers

US crop workers are mostly men born in Mexico who are not authorized to work in the US. For the past quarter century, a 70-70 rule prevailed: 70 percent of crop workers were

born in Mexico, and 70 percent of them were unauthorized, making half of all crop workers unauthorized (.7x.7=.49). Most of these unauthorized Mexican men were in their early 20s when they arrived between the mid-1990s and 2007.

Most US crop workers are employed 200 days a year for one farm employer and earn $20,000 for 1,600 hours a year at $12.50 an hour. Most want to continue to do US farm work, in part because their lack of English and an average eight years of schooling makes it hard for many to find nonfarm jobs. Farm work is like nonfarm work in the sense that crop workers live in rented or owned housing off the farm, commute alone or in car pools to work, and return to families that often include US-born children at the end of the workday.

Many farm worker families have several earners, so median family income is over $2,000 a month; 80 percent of farm worker families have incomes above the poverty line. Most current farm workers hope that their children get a US education and do not follow them into the fields

Mechanization, H-2As, and Imports

Mechanization. Labor-saving mechanization has reduced the share of employment in agriculture to a quarter globally and less than five percent in rich countries. Farm mechanization often occurs in waves, as with the spread of tractors and combines in the 1920s and 1930s. After the Bracero program ended in 1964, there was a wave of mechanization involving tree shakers, bulk bins, and fork lifts as well as the mechanization of the processing tomato harvest.

Rising unauthorized migration in the 1980s and 1990s slowed farm wage increases after the turbulent 1970s marked by union activities and sharp jumps in wages and benefits; the entry-level wage in UFW contracts in 1980 was $5.25 an hour when the California minimum wage was $3.10, a 69 percent premium that today, when the state's minimum wage is $14, would mean an entry level wage of $23.65. The availability of unauthorized migrants, reduced government support for mechanization, and consumer preferences for fresh produce slowed labor-saving mechanization.

Once-over mechanization is easier than multiple picks, and mechanizing the harvest of commodities that are processed is easier than mechanizing fresh-market produce. Most vegetables are annual plants, so a machine can cut the plant and use shakers and sorters to isolate the desired vegetables and convey them to bins or trucks. Catch-and-shake harvesters use rubber-coated heads that grasp a trunk or limb and deliver a jolt to dislodge the fruits or nuts into a catching frame or to the ground. Grapes and blueberries can be harvested by machines that pass over a row of plants and use rotating fingers to dislodge the fruit onto conveyor belts.

Apples illustrate mechanization challenges and opportunities. Apples are increasingly sold by variety, and new varieties such as Honeycrisp are planted like vineyards in parallel rows designed for labor aids and machines. New varieties are more valuable and require careful handling, which encourages continued reliance on hand labor and raises the bar for labor-saving machines that detect and pick individual apples.

H-2A. DOL certified a record 275,000 farm jobs to be filled with H-2A workers in FY20. Over 90 percent of H-2A workers are Mexicans who are a decade younger than the mostly unauthorized and settled Mexican-born and mostly unauthorized US crop workforce. H-2A workers earn $12,000 to $14,000 during their six months in the US, are 15 to 25 percent more productive in bins or boxes picked per hour, and provide labor insurance, since they cannot change US employers.

A major difference between Braceros in the 1950s and H-2As today is the role of FLCs in the H-2A program. Most Braceros were employed by associations that moved them from farm to farm, while almost half of H-2A workers are employed by FLCs who move them from farm to farm.

Imports. The US imports two-thirds of its fresh fruit and one-third of its fresh vegetables. The share of imports is rising due to a year-round demand for fresh produce and freer trade with countries that export fresh fruits and vegetables. Five fresh fruits accounted for three-fourths of the $14 billion of all US fresh fruit imports in FY19, led by $3.3 billion worth of berries, $2.7 billion worth of avocados, $2.2 billion worth of bananas, $1.6 billion worth of grapes, and $800 million worth of pineapples.

Mexico's $16 billion in fruit and vegetable exports to the US in 2020 highlight Mexico's competitive advantages, which include climate, protected culture greenhouses and plastic-covered hoop structures that protect plants, and wages that are a tenth of US levels. NAFTA and USMCA made it easier to invest in Mexico, and a million Mexicans are employed on Mexican farms that produce for Americans (another two million Mexican-born workers are employed on US farms). Over 60 percent of the asparagus, broccoli, and cucumbers produced in Mexico is exported to the US, as is 40 to 50 percent of the avocados, tomatoes, and strawberries.

If current trends continue, unauthorized Mexican-born farm workers who are settled in the US will age out of farm work and be replaced by H-2A guest workers, who may serve as a bridge to mechanization in some commodities (apples) and dominate seasonal workforces in commodities that continue to be hand harvested (berries, cherries, melons). The 2030 US hired farm workforce could be a third US citizens and legal immigrants, a third unauthorized, and a third H-2A workers.

The major factors affecting the size and composition of the 2030 farm workforce include the speed of mechanization, how much worker productivity rises with H-2As and

mechanical aids, and whether barriers to trade in fresh fruit and vegetable production remains low. Government research, migration, and trade policies affect these options, as do consumer preferences for hand versus machine produce and the opportunities for US farm workers to find nonfarm jobs.

Further Reading

Farm employment: https://migration.ucdavis.edu/rmn/blog/post/?id=2570
Covid: https://migration.ucdavis.edu/rmn/blog/post/?id=2508
Mechanization: https://migration.ucdavis.edu/rmn/blog/post/?id=2568
https://migration.ucdavis.edu/rmn/blog/post/?id=2504
https://migration.ucdavis.edu/rmn/blog/post/?id=2503
H-2A: https://migration.ucdavis.edu/rmn/blog/post/?id=2571
Imports: https://migration.ucdavis.edu/rmn/blog/post/?id=2569