

Agricultural Labor Issues and Background

Blake Brown, Extension Economist

North Carolina State University

June 10, 2019

Executive Summary

- Farm groups often cite the need for a reliable labor force as one of their top priorities.
- The greatest need is in labor intensive fruits and vegetables with needs for seasonal labor, but also in some livestock enterprises, e.g. dairies, with year-round needs.
- Labor costs can be 40 percent or more of the production costs of fresh fruits and vegetables.
- Labor intensive farm enterprises are often high value. The 2017 value of production of U.S. fruit, berries, tree nuts and vegetables averaged \$4,412 per acre versus \$711 per acre for corn.
- U.S. employment of non-citizen workers on farms has declined from 406 thousand in 2014 to 328 thousand in 2017.
- The H-2A temporary visa program enables agricultural employers to bring nonimmigrant foreign workers to the U.S. for seasonal work in agriculture.
- The adverse effect wage rate which establishes the minimum hourly wage rate for H-2A workers varies from \$11.13 to \$14.73 with a national average of \$12.96 in 2019.
- Agricultural employment of guest workers via the temporary visa program, H-2A, has risen from 117 thousand in 2014 to 200 thousand in 2017 and 243 thousand in 2018.
- Several studies examine the economic impacts of undocumented farm workers and the H-2A program. Findings are:
 - Increased H-2A certifications increase fruit and vegetable production and exports.
 - Decreased unauthorized immigrant numbers reduce fruit, vegetable and tree output and exports.
 - Stricter border and immigration enforcement reduce labor intensive agriculture output with a modest increase Mexican agriculture production.
 - Stricter border and immigration enforcement accompanied by expansion of guest worker programs only reduces U.S. agriculture output slightly and does not reduce wage rates of domestic workers.
 - Stricter enforcement of immigration rules shift the U.S. crop mix away from labor intensive crops.

Introduction

Farm groups often cite the need for a reliable labor force as one of their top priorities (American Farm Bureau Federation, 2019). These groups indicate that farmers are unable to find American workers to fill the need. The need is particularly acute in labor intensive jobs like harvesting fresh produce or tending livestock where mechanization has not been successful.

Traditionally agriculture has relied heavily on undocumented immigrants. However the number of undocumented workers in agriculture has declined in recent years. At the same time the number of farm workers hired via the temporary visa program, H-2A, has risen. Numerous attempts to reform the

Ag Labor Backgrounder

temporary visa program for agriculture have been made, but none have succeeded. The purpose of this memo is provide background information and prior research findings on farm labor.

Labor intensive agricultural sectors

Traditionally immigrant labor has been used in labor intensive sectors like fresh produce where tasks like harvesting easily damaged and highly perishable products is difficult to mechanize. Immigrant workers also are major sources of labor for tending livestock, for example, in dairies. Labor costs are typically a substantial share of expenses in such enterprises. For example, labor comprises 36 percent of the total per acre cost of producing strawberries. Such crops are very high value, high cost of production and very perishable crops. The total cost per acre of producing strawberries in the Salinas valley of California was estimated at \$67,674 with labor costs of \$24,533 per acre in 2016 (Bolda et al). Similarly labor costs as a share of total production costs for fresh market blueberries and peaches are 40 and 30 percent, respectively (AgMRC 2019). Fresh market vegetables are typically lower in value and cost than fruit, but labor still comprises a substantial portion of costs. For example, the estimated cost of production for sweet potatoes is \$5,600 per acre with labor making up 26 percent of this cost (NC State University 2013).

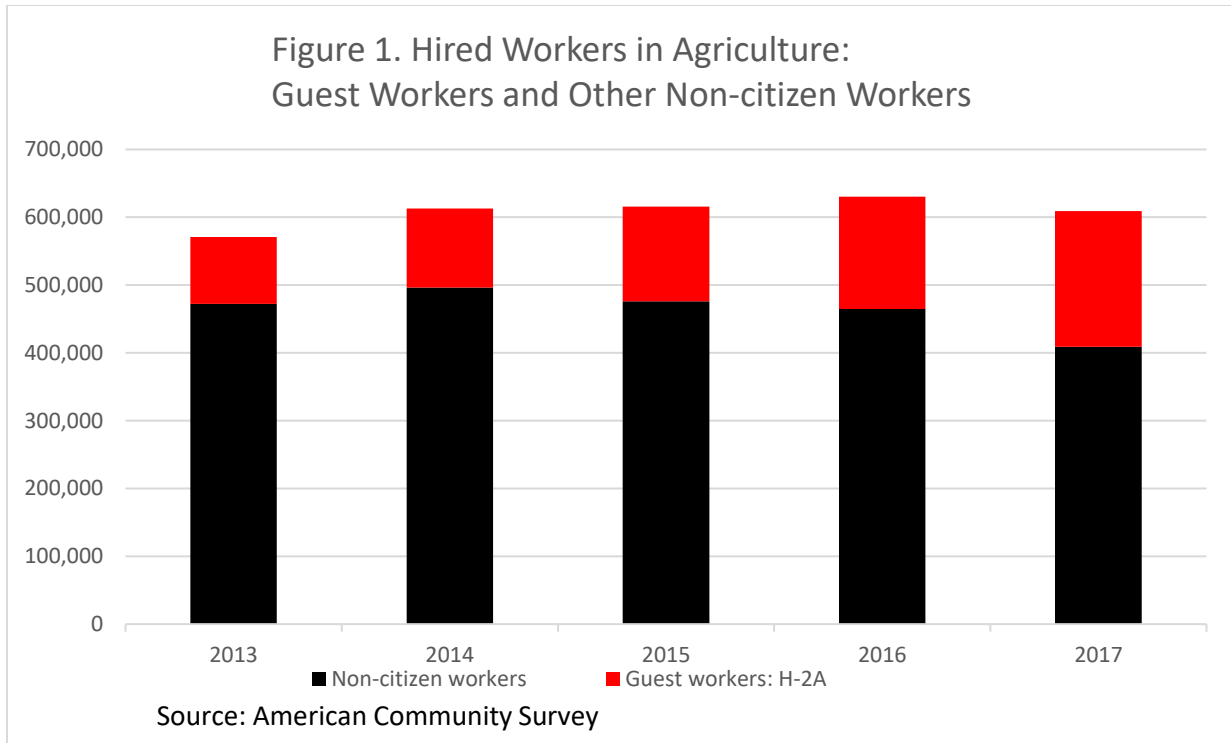
Labor costs albeit a much smaller share of total costs are still substantial in some livestock operations. For dairy USDA estimated that labor was about 9 percent of the total cost of producing milk in 2016. For fresh produce, labor is required only seasonally, but for livestock operations the labor is needed year-round. Using temporary visa programs for seasonal labor, like H-2A, is not possible for dairies.

Commodity crops like corn and soybeans are more capital intensive so that labor makes up a very small share of costs. For example, USDA estimates the total cost per acre of producing corn in 2018 at \$680 per acre of which labor made up \$5; less than 1 percent of the total cost. This means that geographical areas like California or the southeastern U.S., where a larger share of agricultural production is vegetables and fruit, have much more interest in immigration policy than areas where commodity crop production predominates like the mid-west.

United Fresh estimated in 2017 that U.S. fruit, berries, tree nuts and vegetables had value of production of \$42.8 billion on 9.7 million acres. The value of production of corn was \$67.2 billion on 94.5 Million. So the average per acre value of production across all fruit, berry, tree nut and vegetable production averaged \$4,412 in contrast to \$711 per acre for corn.

Employment in agriculture

Employment of non-citizen workers in crop and animal production has fallen each year since 2014; down 18 percent for the period 2014-2017, a decline of 87,219 workers (figure 1). Over the same period, employment of guest workers (H-2A) has risen 71 percent; an increase of 83,360 workers from 116,689 in 2014 to 200,049 in 2017. While the number of undocumented workers has fallen, the number of H-2A guest workers continues to rise with 242,762 certifications in 2018.



Employment of non-citizen workers in crop production was 405,692 (the peak for 2012-2017) in 2014 and 327,984 in 2017 (the low for the same 6 year period). For the same period employment of non-citizen workers in animal production peaked at 107,026 in 2013 and was at 81,121 (the low) in 2017. Crop farms had the option of switching to H-2A labor and apparently did, whereas livestock operations could not switch to temporary visas holders.

H-2A Program

The H-2A program allows agricultural employers to apply with the U.S. Department of Labor (DOL) to bring nonimmigrant foreign workers to the U.S. for seasonal work in agriculture. To grant permission DOL must determine there are not enough U.S. workers available to do the work and that bringing in seasonal foreign workers will not adversely affect the wage rates of U.S. workers. This process involves multiple federal agencies including DOL, Department of State and Department of Homeland Security.

The number of H-2A certifications is not capped and has grown rapidly over the last 10 years reaching almost 243 thousand certifications in 2018. Employers are required to recruit domestic workers in a multi-state region and must hire any qualified U.S. worker if they apply during the first half of the season. Employers are required to provide the H-2A workers with housing, transportation, and worker's compensation.

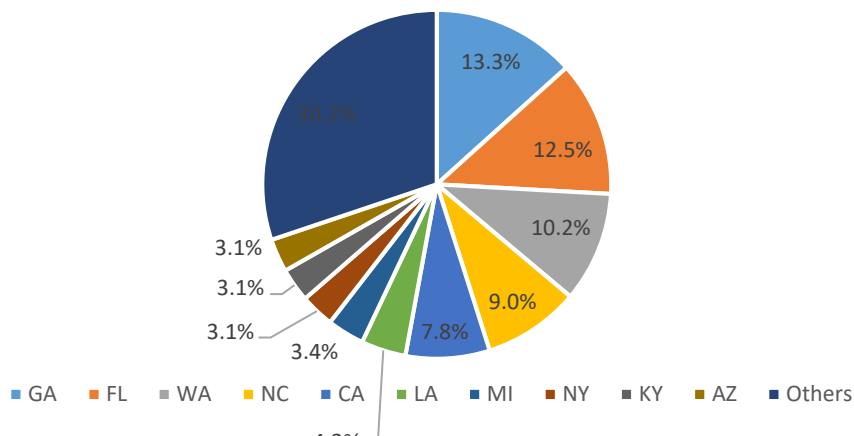
H-2A workers must be paid the higher of federal or state minimum wage, the prevailing wage rate or the adverse effect wage rate (AEWR). AEWR is determined by USDA Farm Labor Survey data and is the highest of the three measures. Figure 2 shows the 2019 AEWR by state and the comparable state minimum wage rates for 2019. The national average AEWR in 2019 is \$12.96. In 2018 the national average AEWR was \$12.20. The U.S. median hourly earnings across all occupations was \$14.99 in 2018.

Figure 2. 2019 AEWR and State Minimum Wage Rates



Georgia had the largest number of H-2A workers in 2018 followed by Florida (figure 3). While California has the largest number of farm workers of all states, California ranks 5th in number of H-2A workers although each year it has increased the number of H-2A workers hired.

Figure 3. 2018 H-2A Certifications by State
Positions Certified: 242,762



Source: Office of Foreign Labor Certification

Economic impacts of immigrant farm laborers: a review of research

Several studies examine the potential economic impact of undocumented immigrant workers or changing the number of temporary visa non-immigrant workers. Zahniser et al. (2012) consider two

Ag Labor Backgrounder

scenarios; one in which the number of H-2A workers increase from 43,000 to 156,000 over 15 years and another in which stricter enforcement of immigration rules results in a reduction of non-authorized immigrants of 5.8 million over 15 years (by both causing some immigrants to leave the U.S. and reducing the flow of new immigrants). While the magnitudes differ, these scenarios are very much like the current situation of increasing H-2A certifications and stricter immigration rules. They find that the scenario of increased H-2A workers (with no change in immigration rules) increases fruit and vegetable production and exports. Also this scenario decreases the number of authorized immigrants in farm work by 6 percent and decreases wages for this group by 3 percent, but has no significant effect on the larger economy. The second scenario of decreased unauthorized immigrants (with no change in H-2A workers) lowers gross national product, reduces farm employment, reduces fruit, vegetable and tree nut output and exports, and raises earning for remaining farm workers.

Devadoss and Luckstead (2018) studied the impact of immigration policy on non-citizen and citizen foreign born labor as well as on wage rates. They conclude that stricter border and domestic immigration enforcement harms labor intensive agricultural sectors. Stricter border and domestic immigration enforcement are found to result in a modest increase in Mexican agricultural production. They also examine stricter enforcement of immigration policy accompanied by expansion of a guest worker program for U.S. agriculture. Under this scenario the total farm labor force declines slightly as cheaper unauthorized immigrants are substituted for with more expensive guest workers. Accordingly U.S. agricultural production declines slightly. They also find that these changes do not reduce the wage rate of domestic workers.

Emerson (2007) suggests that stricter enforcement of immigration rules would shift the U.S. crop mix away from labor intensive horticulture crops but that wages of existing employees would be unaffected by additional foreign agricultural workers. More recently Martin (2018) writes regarding the impact of the end of large-scale migration of Mexican workers to the U.S. and rising California minimum wage rates on U.S. agriculture. He suggests that farmers will respond with four strategies. Farmers will try to satisfy current workers in order to retain them longer. Farmers will employ more mechanical aids to increase productivity of the current labor force. Machines will be substituted for labor where possible. Use of H-2A workers will expand. Martin notes that 70 percent of hired farm workers on U.S. crop farms were born in Mexico and that 70 percent of those born in Mexico are unauthorized. He notes that the number of H-2A certifications in California has tripled. Further 50 percent of U.S. fruit consumption and 25 percent of vegetables are imported. The U.S. has an agricultural trade deficit with Mexico that is growing.

References

AgMRC. FoodSearcher Tool. Accessed June, 2019. <https://www.agmrc.org/commodities-products/fruits/peaches>, <https://www.agmrc.org/commodities-products/fruits/blueberries>.

American Farm Bureau Federation. 2019. *Agriculture Labor Reform*. Accessed June 10, 2019. <https://www.fb.org/issues/immigration-reform/agriculture-labor-reform/>

Bolda, M.P., L. Tourte, J. Murdock, D. Sumner. 2016. "Sample Costs to Produce and Harvest Strawberries, Central Coast Region, Santa Cruz & Monterey Counties." University of California Agriculture and Natural Resources Cooperative Extension and Agricultural Issues Center, UC Davis Department of Agricultural and Resource Economics.

Ag Labor Backgrounder

Devadoss, S. and J. Luckstead. "US immigration policies and dynamics of cross-border workforce in agriculture." *The World Economy*. 2018; 41:2389-2413.

Emerson, R.D. "Agricultural Labor Markets and Immigration." *Choices* 22(1):57-66. 1st Quarter 2007.

Hasey, J., R. Duncan, D. Sumner, J. Murdock. 2017. "Sample Costs for Processing , Central Coast Region, Santa Cruz & Monterey Counties." University of California Agriculture and Natural Resources Cooperative Extension and Agricultural Issues Center, UC Davis Department of Agricultural and Resource Economics.

Martin, Philip. "The race in the fields: Imports, machines and migrants." *California Agriculture* 72(2):100-101. April-May, 2018.

United States Census Bureau. *American Community Survey (ACS)*. Accessed May 2019.
<https://www.census.gov/programs-surveys/acs>

United States Department of Labor Office of Foreign Labor Certification. September 30, 2018. *H-2A Temporary Agricultural Labor Certification Program-Selected Statistics, FY 2018*. Accessed June, 2019.
{https://www.foreignlaborcert.doleta.gov/pdf/PerformanceData/2018/H-2A_Selected_Statistics_FY2018_Q4.pdf}

North Carolina State University, Department of Agricultural and Resource Economics. 2013. "Sweet Potato-2013 Enterprise Budget."

United Fresh Produce Association. 2017. *Being United Makes All the Difference*. Accessed May, 2019.
{<https://www.unitedfresh.org/content/uploads/2017/04/United-Fresh-Produce-Association-Industry-Powerpoint.pdf>}

United States Department of Labor Office of Foreign Labor Certification. 2019. *Adverse Effect Wage Rates-Year 2019*. May, 2019. { <https://www.foreignlaborcert.doleta.gov/adverse.cfm>}

Zahniser, S. T Hertz, P. Dixon and M. Rimmer. "Policy and its possible effects on U.S. agriculture and the market for hired farm labor: a simulation analysis." *American Journal of Agricultural Economics* 94(2):477-482. January, 2012.