

**AEWRs and the H-2A Program:  
Evolution, Impacts, and Alternatives**

**Alexandra E Hill and Philip L Martin**  
Version: August 1, 2025

|   |           |
|---|-----------|
| <b>SUMMARY .....</b>                                  | <b>2</b>  |
| <b>AEWR EVOLUTION .....</b>                           | <b>8</b>  |
| BRACEROS AND AEWRs .....                              | 8         |
| IRCA AND H-2A .....                                   | 13        |
| FWMA AND ALWG .....                                   | 14        |
| <b>AEWR IMPACTS .....</b>                             | <b>15</b> |
| IMPACTS ON US WORKERS .....                           | 15        |
| <i>Industry and Worker Advocate Perspectives.....</i> | <i>15</i> |
| <i>Research .....</i>                                 | <i>16</i> |
| IMPACTS ON FOREIGN WORKERS .....                      | 23        |
| IMPACTS ON US AGRICULTURE .....                       | 26        |
| <b>AEWRs AND ALTERNATIVES .....</b>                   | <b>30</b> |
| ALTERNATIVE DATA SOURCES AND METHODS .....            | 31        |
| FLS .....   | 33        |
| OEWS.....   | 35        |
| QCEW.....   | 37        |
| ECI .....   | 38        |
| <b>OTHER COUNTRIES .....</b>                          | <b>42</b> |
| ANZ .....   | 43        |
| <i>Australia .....</i>                                | <i>44</i> |
| <i>New Zealand .....</i>                              | <i>48</i> |
| CANADA .....  | 50        |
| UK.....   | 54        |
| <b>H-2A TOTAL COSTS .....</b>                         | <b>57</b> |
| <b>CONCLUSIONS AND RECOMMENDATIONS .....</b>          | <b>58</b> |
| <b>BIBLIOGRAPHY .....</b>                             | <b>60</b> |

## Summary

Employers seeking DOL certification to hire H-2A workers to fill seasonal farm jobs must try and fail to recruit sufficient US workers<sup>1</sup> while offering the higher of the federal, state, or local minimum wage, the prevailing wage rate, or the Adverse Effect Wage Rate (AEWR).<sup>2</sup> The AEWR is normally the highest of these wages. Farm employers complain that the AEWR, which ranges from about \$15 to \$20 across states in 2025, has been rising twice as fast as nonfarm wages.

The law creating the H-2A program does not require DOL to set a specific minimum AEWR wage. Instead, 8 USC 1188 allows the admission of H-2A workers if:

- there are not sufficient workers who are able, willing, and qualified, and who will be available at the time and place needed, to perform the labor or services for the employer who is seeking certification to recruit and employ guest workers and
- the employment of H-2A workers will not adversely affect the wages and working conditions of workers in the United States who are in similar employment.<sup>3</sup>

DOL developed AEWRs by regulation to test the labor market for US workers and to prevent guest workers from having adverse effects on similar US workers.

The first AEWRs were issued in 1962, when US farm workers were not covered by the federal Fair Labor Standards Act, the law that establishes federal minimum wages and regulates child labor and overtime. Several methodologies and databases have since been used to set and adjust AEWRs, including the current three:

1. Hourly AEWRs for crop, animal and other “farm” job titles are based on the average hourly earnings of crop and livestock workers who are hired directly by farm operators and reported to USDA’s Farm Labor Survey (FLS).<sup>4</sup> The survey is conducted twice a year and obtains employment and wage data for the week of the 12<sup>th</sup> of January, April, July, and October. Average hourly earnings are determined for states and multistate regions by dividing gross pay by hours worked; gross pay includes overtime, bonuses, and piece rate earnings.
2. Hourly AEWRs for “nonfarm” job titles such as supervisors (SOC code 45-1011), tractor-trailer truck drivers (53-3032), and construction workers (47-2061), are the average wages reported by employers to DOL’s Occupational Employment and Wage Statistics (OEWS) program for the state or the US.<sup>5</sup> USDA surveys only farm employers, while DOL surveys only nonfarm employers, so the OEWS

---

<sup>1</sup> Throughout this report, we refer to any non-H2A worker residing in the US as a US worker.

<sup>2</sup> Employers must offer at least the wage rate in a collective bargaining agreement if there is a CBA.

<sup>3</sup> DOL interprets “will not adversely affect” as preventing future adverse effects on US workers.

<sup>4</sup> The Big 6 SOC codes have one AEWR based on the FLS: SOC code 45-2041—Graders and Sorters, Agricultural Products 45-2091—Agricultural Equipment Operators 45-2092—Farmworkers and Laborers, Crop, Nursery, and Greenhouse 45-2093—Farmworkers, Farm, Ranch, and Aquacultural Animals and 53-7064—Packers and Packagers, Hand, and 45-2099—Agricultural Workers, All Others.

<sup>5</sup> OEWS data are available at the sub-state area for metro and non-metro areas, but DOL uses state-level OEWS average hourly wages for the SOC or job title, or the US average if state-level data are unavailable.

obtains data from crop support service firms such as farm labor contractors (FLCs) as well as the nonfarm trucking, construction, and other businesses that employ far more workers than crop support firms. The mean state or US OEWS wage is the AEW for “nonfarm” job titles.

3. Monthly AEWs for range herders with 24/7 work schedules are based on the federal minimum wage for a 48-hour work week and 4.33 weeks a month. Range herder AEWs are adjusted each year based on the change in the Employment Cost Index (ECI) for wages and salaries.

Hourly AEWs based on the FLS and OEWS vary by state or multi-state region. There is one federal monthly range herder AEW, although some states have established higher-than-federal herder monthly minimum wages.

This report reviews the evolution of AEWs, the impacts of AEWs on US workers and agriculture, how other countries set minimum wages for farm guest workers, and alternatives to the current AEW methodology. The major conclusions are:

1. AEWs for most of the H-2A jobs certified since 1987 have been based on the USDA Farm Labor Survey, which covers only workers who are hired directly by farm operators and has declining response rates; less than half of farm employers who are contacted provide data. The result is small samples and large year-to-year changes in AEWs in the states and the multi-state regions for which the FLS reports average hourly earnings.
2. Alternative data sources and adjustment mechanisms pose trade-offs:
  - a. DOL’s Occupational Employment and Wage Statistics (OEWS) collects data from over a million nonfarm establishments covered by unemployment insurance and has a response rate of 65 percent. The OEWS publishes more data than the FLS for 800+ occupations, including mean and median wages and other wage and employment data. Under 2023 DOL regulations, OEWS mean wages are the AEW for “nonfarm H-2A occupations” such as truck drivers, construction workers, and first-line supervisors.
  - b. DOL’s Quarterly Census of Employment and Wages (QCEW) obtains wage and employment data from employers when they pay unemployment insurance taxes. The QCEW covers almost all farm employment in states such as CA and WA, but covers only 10/20 farm employers in many states, that is, farms with at least 10 or more employees during 20 weeks of the year and/or farms paying at least \$20,000 in wages a quarter.<sup>6</sup> The QCEW generates average weekly rather than hourly wages. The year-to-year change in weekly wages could be used to adjust AEWs by detailed NAICS, such as jobs in the vegetable (1112), fruit (1113), or crop support (1115) industries.
  - c. DOL’s Employment Cost Index (ECI) measures changes in the cost of the wages and benefits of nonfarm employees. The sample is 6,300 private employers and 1,400 state and local governments, and the data are reported for 23 major groups of occupations, 459 broad groups, and 867 detailed occupations, and the data are available by union and non-union worker status and for states and metro areas within states. Farm workers

---

<sup>6</sup> DOL estimates that 85 percent of US farm employment is covered by the QCEW.

are grouped with construction, and extraction, farming, fishing, and forestry occupations.

DOL planned to use the ECI-reported change in private sector wages and salaries to adjust AEWRs after USDA stopped the FLS in 2020. However, USDA resumed the FLS, and DOL did not make the switch to adjusting AEWRs according to the change in the ECI. A few states including CT use the ECI to adjust state minimum wages, but most states use the CPI-U (Consumer price index for all urban consumers) or CPI-W (Consumer price index for urban wage earners and clerical workers) to adjust state minimum wages to adjust their minimum wages.

3. AEWRs higher than federal or state minimum wages can raise the wages of US farm workers for several reasons.
  - a. First, an employer with some US workers who is weighing whether to employ H-2A workers or try harder to recruit US workers may raise wages to attract more US workers and avoid the housing, transportation and other costs of H-2A workers.
  - b. Second, US workers often know the AEWR and expect employers to pay the AEWR in areas where H-2A workers are employed, even if the US workers are not in employment that is similar to the H-2A workers.
4. Almost all H-2A workers are from lower wage countries, enabling them to earn 5x to 10x home-country wages in the US. H-2A workers can save 80 to 90 percent of their US earnings because their employers pay transport and housing costs. Many studies find that families in Mexico and other countries with H-2A workers have better housing, and children in such households have more schooling and health care, than similar families and children in households without H-2A workers.
5. Rising AEWRs increase labor costs and encourage some farmers to switch to less labor-intensive crops, while other farmers mechanize hand tasks and/or introduce aids to make hand workers more productive. US imports of labor-intensive commodities from lower-wage countries are increasing.
6. Most countries with farm guest worker programs require employers to pay the higher of the applicable national, state, or local minimum wage rather than a higher-than-minimum wage AEWR. Most countries require guest workers to pay for some or all of their visa, transport, and housing costs and to contribute to pension and health care funds like local workers. Employers deduct income taxes from guest worker wages in most countries, and some allow workers to obtain refunds during or after departure. H-2A workers can save 80 to 90 percent of their US earnings, more than the 65 to 75 percent savings typical in other countries.

The major recommendations are to:

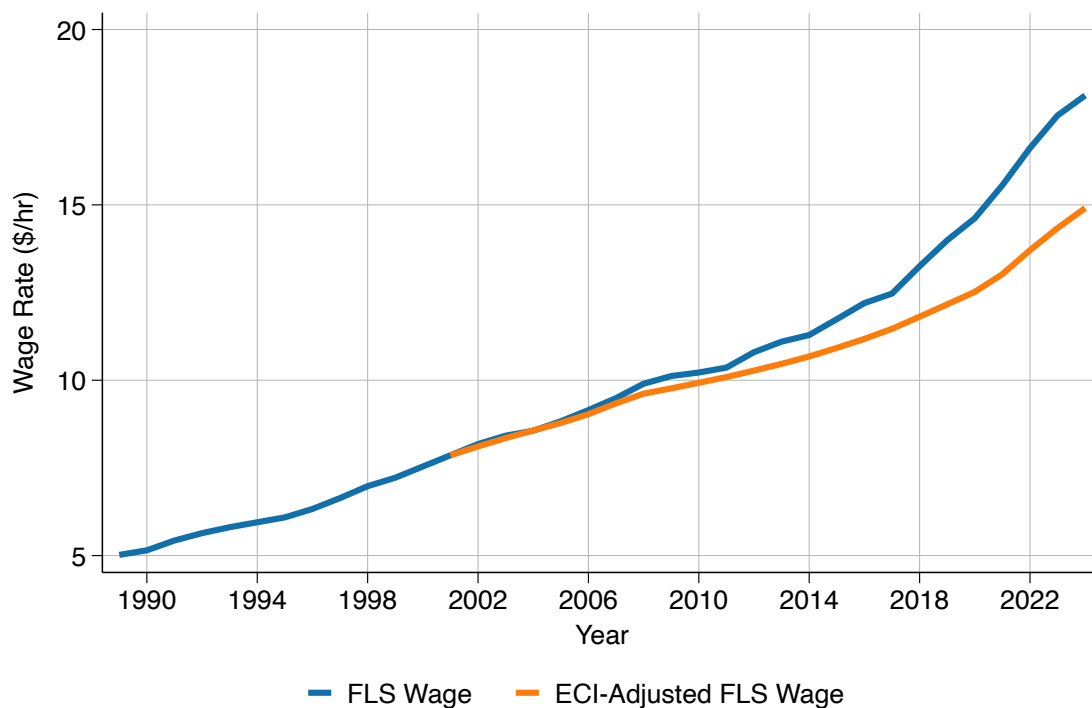
1. Past and Present. Recognize that AEWRs were introduced when (1) US farm workers were not covered by federal minimum wage laws and (2) Braceros were concentrated by geography and commodity. A major justification for AEWRs was to offset the stagnation of piece rate wages that were paid to hand pick cotton in Texas and California.

Many farm workers today are covered by federal and state minimum wage laws on the same basis as nonfarm workers. DOL's ad hoc adjustments from the 1960s

to the 1980s produced AEWs that were 10 percent to 20 percent higher than the FLS average hourly earnings of crop and livestock workers. After the enactment of IRCA in 1986, DOL concluded that, with unauthorized farm workers no longer depressing farm worker earnings, FLS average hourly earnings for the year before would be the AEW for the current year. Farm worker advocates sued, but a US Court of Appeals agreed that DOL used valid reasoning and approved FLS average hourly earnings from the year as the AEW for the current year.

2. USDA and DOL. USDA announced the cancellation of the FLS several times, including in 2007, 2011, and 2020. When USDA announced the cancellation of the FLS in September 2020, DOL proposed to freeze AEWs for most job titles at 2020 levels to provide “stability and predictability in labor costs” for employers, and then to adjust AEWs beginning in 2023 to reflect the change in the BLS Employment Cost Index for private sector wages and salaries the year before.<sup>7</sup> The ECI has mostly increased by two to four percent in the 21<sup>st</sup> century: if the ECI had been used to adjust FLS average hourly earnings, they would be \$15 in 2025 rather than \$18 (Figure 1).

**Figure 1. ECI wage and salary costs rose slower than FLS average earnings over the past decade**



<sup>7</sup> DOL (2023) rejected relying on the ECI to adjust AEWs in 2023 regulations by asserting that the ECI measures changes in labor costs rather than hourly earnings. DOL in 2023 said that the AEW should be the mean hourly wage to be consistent with other migrant worker programs, and that the hourly AEW should change each year based on changes in an hourly wage or earnings rather than an index.

*Notes:* Applies the ECI for all wage and salary private industry workers to adjust FLS hourly earnings each year since 2001.

The bipartisan Farm Workforce Modernization Act approved by the House in 2019 and 2021 would have capped annual AEWR increases at 3.25 percent while the government studied the need for an AEWR to protect US farm workers. Other bills would set the AEWR at a percentage of the federal, state, or local minimum wage, typically from 100 to 125 percent.

3. Nonfarm Jobs. The expansion of the H-2A program to include more “nonfarm” jobs prompted DOL to use the mean statewide OEWS to set AEWRs for truck drivers and construction workers. The result is a sometime doubling of the AEWR for these “nonfarm job titles.” Farm employers argue that agricultural truck drivers and construction workers are a very small share of large nonfarm trucking and construction workforces, so that the H-2A truck drivers and construction workers they employ cannot have adverse effects on the large number of US workers in these occupations.
4. Adverse Effects. Many farm employers want DOL to first demonstrate that H-2A workers have an adverse effect on US farm workers before establishing an AEWR that is higher than applicable federal or state minimum wages. Other countries do not have AEWRs for farm workers, so there is no menu of methodologies to assess how other countries seek to avoid adverse effects of farm guest workers on local workers. The guiding principle in most countries is equal treatment: guest workers must be paid the same wages as local workers.
5. US Workers. There are about 300,000 H-2A workers in a US farm workforce of 2.5 million. Farm workers fill an average 1.5 million jobs: the farm workforce exceeds average employment due to seasonality and turnover. Most H-2A workers are employed in crops, where average employment is 1.1 million. H-2A workers are in the US an average six months, so average annual H-2A employment is 150,000 or 14 percent of average annual crop employment.

H-2A employment is concentrated by commodity and area: two-thirds of H-2A jobs are in fruits and vegetables, and over half in five states. There appears to be strong path dependence in H-2A employment: after an association, employer, or FLC successfully employs H-2A workers, H-2A employment tends to expand so that a rising share of Florida oranges, California berries, and Washington apples are picked by H-2A workers.

The closest “natural experiment” to answer the question of what would happen if the AEWR were raised significantly may be the California sheep and goat industry. California raised the minimum monthly wage for range herders with 24/7 work schedules from \$2,200 a month in 2019 to \$4,800 a month in 2025, a much faster increase than the state’s minimum wage, which rose from \$11 or \$12 to \$16.50 an hour (\$11 for less than 25 employees) over the same period.

California range herders earn more than H-2A workers who are paid the AEW of \$19.97 for 40-hour weeks or about \$3,450 a month (4.33 weeks). Despite the almost \$5,000 monthly herder wage, there has not been an increase in US herders. Instead, ranchers adjusted by increasing the size of the flock each herder tends, switching to hourly wage systems and limiting herder work weeks to 40 or 45 hours when possible, and making other adjustments. The California range herder experience is unfolding, but suggests that higher AEWs reduce the demand for hand workers more than they increase the supply of US workers.

6. Moving Forward. AEW options range along a spectrum from elimination to minor adjustment:
  - a. Elimination. Require DOL to demonstrate that H-2A workers have an adverse effect on US farm workers before establishing an AEW. This would require DOL to confront research that finds AEWs higher than the applicable federal or state minimum wages *raise* the wages of US farm workers as employers raise wages to avoid H-2A-related costs and as US farm workers expect employers to pay the AEW in areas with H-2A workers (Rutledge et al., 2025).
  - b. Minor Changes. Almost half of H-2A workers are certified to FLCs, who typically pay lower wages than farms that hire workers directly (Castillo et al, 2022). FLCs are not surveyed by USDA's FLS, so their lower wages are not included in the survey used to set AEWs for farm job titles. If the AEW were weighted to reflect the share of employment in each state's crop agriculture that is from crop support employment as measured by the QCEW, the AEW would fall as the share of crop support employment rises.  
  
For example, in California direct-hire accounts for 40 percent and crop support 60 percent of average annual employment in crops. The OEWS wage for Farmworkers and Laborers, Crop, Nursery, and Greenhouse (SOC code 45-2092) was \$17.63 in May 2023, while the FLS average hourly earnings of crop and livestock workers was \$19.75. Weighting the OEWS wage by 60 percent, and the FLS wage by 40 percent, produces a weighted AEW of \$18.48 rather than \$19.75 for 2023. Similar calculations for Washington reduce the AEW from \$19.25 in 2023 to \$18.26.<sup>8</sup>
  - c. In Between. Budget cuts could reduce the sample size or eliminate the FLS, which would require DOL to find another database to adjust AEWs. If DOL followed the strategy proposed in 2020 after the FLS was cancelled, DOL would use the ECI to adjust AEWs, resulting in less

---

<sup>8</sup> CA and WA have complete UI coverage of farm workers, including H-2A workers. Southeastern states that exclude smaller employers and H-2A workers from UI have much smaller shares of crop support employment in the QCEW, and thus the lower OEWS wage would not reduce the AEW as much. For example, the crop support share of total crop and crop support employment in FL is only 20 percent, so weighting the lower OEWS wage by 20 percent reduces the AEW from \$14.77 to \$14.47 in 2023.

variable year-to-year increases because the ECI covers a much larger workforce.

DOL could use the state-level increases in the ECI, preserving the current DOL strategy of having AEWRS reflect changes in state labor markets. An alternative adjustment database is the CPI, which is used by many states to adjust state minimum wages each year to preserve worker purchasing power.

Instead of using the mean FLS or OEWS hourly wage to set the AEWRS, DOL could use the median wage. Federal and state minimum wages establish a floor under wages, allowing high-wage workers to “pull up” the mean wage above the median wage. The FLS does not publish a median wage, but the OEWS does. For example, the median wage of the 195,000 US Farmworkers and Laborers, Crop, Nursery, and Greenhouse (SOC code 45-2092) in May 2024 was \$17.09, while the mean wage was \$18.15.<sup>9</sup>

The H-2B program does not have an AEWRS, but DOL requires payment of the prevailing wage. Prevailing wages are reported by the OEWS at four levels based on experience, with most H-2B workers considered Level 3 (experienced).<sup>10</sup> The Level 3 hourly wage of 37-3011.00 landscaping workers in 2024-25 in the Sacramento area is \$21.31, which is about the same as the mean wage is \$21.33.<sup>11</sup>

## **AEWRS Evolution**

The Immigration and Nationality Act of 1952 created the H-2 program to allow employers to recruit and employ foreign workers to fill seasonal US jobs. The Immigration Reform and Control Act of 1986 divided this seasonal guest worker program into H-2A for seasonal farm jobs and H-2B for seasonal nonfarm jobs.

### **Braceros and AEWRS**

During the 1950s, most foreign farm workers were admitted under the Bracero program, a series of bilateral agreements and laws that allowed US farmers to recruit and employ Mexican workers under contracts that were approved by the Mexican and US governments. Most Braceros were admitted under PL 78, a law enacted in 1951 despite the President Truman’s Commission on Migratory Labor finding that the presence of Braceros depressed wages in the crops where they were concentrated (US Senate Judiciary, 1980).<sup>12</sup> PL 78 Section 503(2) prohibited the employment of Braceros if they “adversely affected” the wages and working conditions of US farm workers, but did not define adverse effect or prescribe a methodology to prevent adverse effects.

---

<sup>9</sup> The OEWS also reports the 10<sup>th</sup>, 25<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentile wage, indicating the share of workers in this occupation paid more or less than particular wage levels.

<sup>10</sup> There are four wage levels by occupation: entry, qualified, experienced, and fully competent

<sup>11</sup> <https://flag.dol.gov/wage-data/wage-search#>

<sup>12</sup> The Commission concluded that “alien labor has depressed farm wages and, therefore, has been detrimental to domestic labor.”



The Bracero program doubled from less than 200,000 admissions in FY53 to over 400,000 in FY54 and a peak of 445,000 in FY55. One reason for the doubling of Bracero admissions was Operation Wetback, a deportation program that removed 300,000 unauthorized Mexicans from inside the US and turned away a million at the Mexico-US border.<sup>13</sup> During the mid-1950s, half of Braceros were in Texas and a quarter were in California; most hand-picked cotton.

DOL found that Braceros adversely affected US workers in 1956 and 1958, citing the fact that some growers who employed Braceros paid lower wages than growers who employed only US workers. To raise the wages paid to Braceros, DOL established a minimum wage of \$0.50 an hour for Braceros in 1958.

DOL appointed four consultants to study the impacts of Braceros on US farm workers. The 1959 Mexican Farm Labor Consultants' Report (US DOL, 1959) concluded that Braceros adversely affected US farm workers. The consultants emphasized that US farm wages rose slowly in the 1950s, especially in areas where Braceros were a majority of farm workers (Bracero-dominated areas). The availability of Braceros to work in the fields prompted growers to shift some work from packinghouses, which employed higher-waged and often unionized US workers, into the fields by using conveyor belts and other equipment to harvest and pack commodities in the field.

The DOL consultants outlined several interpretations of adverse effect, including:

1. prevent Braceros from displacing US workers or worsening the wages or working conditions of US workers
2. ensure that the presence of Braceros did not prevent the wages of US farm workers from increasing as economic theory would predict if there were farm labor shortages that justified the presence of Braceros.

The DOL consultants recommended that DOL determine a minimum wage “necessary to avoid adverse effect on domestic wage rates” in crops and areas dominated by Braceros. In response, DOL established AEWRs in May 1962 for Braceros and US workers in similar jobs of at least \$0.95 an hour in AZ, \$1 an hour in CA, \$0.90 in CO, \$1 in KS, \$0.75 in NM, and \$0.70 in TX.

The DOL consultants emphasized that Braceros had wage guarantees and more benefits than US workers, including a minimum wage,<sup>14</sup> employer-paid inbound transportation, and free housing. US farm workers were not covered by the federal Fair Labor Standards Act (FLSA) until 1966,<sup>15</sup> and did not have travel or housing costs paid by their employers. US workers who were employed alongside Braceros were guaranteed the same wage that was paid to Braceros in the 1961 extension of PL 78.

East coast farmers recruited Caribbean guest workers to fill seasonal farm jobs from the British West Indies under MOUs between the War Food Administration and the Bahamas (March 16, 1943), Jamaica (April 2, 1943), and Barbados (May 24, 1944). The British West Indies Central Labor Organization (BWICLO) represented the

---

<sup>13</sup> <https://migration.ucdavis.edu/rmn/blog/post/?id=2996>

<sup>14</sup> The Mexican government insisted that Bracero contracts guarantee a minimum wage.

<sup>15</sup> Farm workers began to be covered by the FLSA in 1966, and amendments in 1978 expanded FLSA minimum wages to almost all farm workers.

governments of Caribbean islands. Between 1960 and 1980, BWICLO reported that an average 12,000 BWI workers (the range was from 9,000 to 15,000 a year) sent to the US from the Caribbean to harvest sugar cane in Florida and to pick apples along the eastern seaboard.

After the Bracero program ended in 1964, many farmers expected to employ Mexican workers under the H-2 program. However, DOL Secretary W. Willard Wirtz tried to discourage reliance on foreign farm workers by requiring employers to pay AEWRs and to offer US workers the same housing and other benefits that were offered to H-2 workers. As a result, some 44,000 farm jobs were certified to be filled with foreign workers in 1965, down from 200,000 in 1964.

On December 19, 1964, DOL published regulations that required employers of H-2 workers to offer and pay any US workers they employed the AEWR and to provide US workers on farms with Braceros the same housing, transportation, and other benefits that were included in Mexican worker contracts. These regulations set 1965 AEWRs for each US state that were 40 to 90 percent higher than prevailing farm wages in 1964 (Figure 2).

Figure 2. DOL's 1965 AEWs were 40% to 90% higher than 1964 farm wages

| State:              | Wage rate |
|---------------------|-----------|
| Arizona -----       | \$1. 25   |
| Arkansas -----      | 1. 15     |
| California -----    | 1. 40     |
| Colorado -----      | 1. 30     |
| Connecticut -----   | 1. 40     |
| Florida -----       | 1. 15     |
| Indiana -----       | 1. 25     |
| Kansas -----        | 1. 40     |
| Maine -----         | 1. 25     |
| Massachusetts ----- | 1. 30     |
| Michigan -----      | 1. 25     |
| Minnesota -----     | 1. 40     |
| Montana -----       | 1. 40     |
| Nebraska -----      | 1. 40     |
| New Hampshire ----- | 1. 30     |
| New Jersey -----    | 1. 30     |
| New Mexico -----    | 1. 15     |
| New York -----      | 1. 30     |
| Oregon -----        | 1. 30     |
| Rhode Island -----  | 1. 30     |
| South Dakota -----  | 1. 40     |
| Texas -----         | 1. 15     |
| Utah -----          | 1. 40     |
| Vermont -----       | 1. 30     |
| Virginia -----      | 1. 15     |
| West Virginia ----- | 1. 15     |
| Wisconsin -----     | 1. 30     |
| Wyoming -----       | 1. 25     |

Florida growers sued after DOL refused to certify their need for H-2 celery cutters and failed to obtain an injunction to require DOL to certify their need, prompting Senators from California and Florida to introduce a bill that would have transferred responsibility for certifying farm employer requests for foreign workers from DOL to USDA. On September 13, 1965, Vice President Hubert H. Humphrey broke a Senate 45-45 tie vote to block this amendment to the farm bill (HR 9811) to transfer authority to certify the need for foreign farm workers from the Secretary of Labor to the Secretary of Agriculture.

These first AEWRs set by DOL were based on data from the 1950 Census of Agriculture, which collected information on the wages and hours of the workers farmers hired directly. At that time, two-thirds of California farm employers paid hourly wages, mostly \$0.75 to \$1 an hour (Figure 3).

Figure 3. DOL used 1950 COA wage data to set the first AEWRs

# CALIFORNIA

31

State Table 21.—HIRED FARM LABOR AND WAGE RATES BY TYPE OF FARM: CENSUS OF 1950

[Figures on number of workers and wage rates are for hired persons working the week preceding the enumeration. Data are based on reports for only a sample of farms. See text.]

| Item<br>(For definitions and explanations, see text)                            | Total<br>all<br>farms | Type of farm |        |                     |           |                   |
|---|-----------------------|--------------|--------|---------------------|-----------|-------------------|
|   |                       | Cash-grain   | Cotton | Other<br>field-crop | Vegetable | Fruit-<br>and-nut |
| <b>Hired workers.....</b> farms reporting..                                     | 37,670                | 2,295        | 2,368  | 790                 | 2,482     | 11,725            |
| 1 hired worker.....   | 162,975               | 9,767        | 13,262 | 9,996               | 33,874    | 43,233            |
| 2 hired workers.....  | 18,730                | 1,000        | 1,054  | 225                 | 474       | 5,927             |
| 3 to 4 hired workers.....   | 7,639                 | 471          | 494    | 123                 | 423       | 2,533             |
| 5 to 9 hired workers.....   | 5,326                 | 355          | 350    | 116                 | 523       | 1,600             |
| 10 hired workers or more.....   | 3,156                 | 248          | 227    | 116                 | 395       | 917               |
| ..... farms reporting..   | 2,819                 | 221          | 243    | 209                 | 647       | 698               |
| <b>Regular workers (to be employed 150 days or more).....</b> farms reporting.. | 37,053                | 1,737        | 1,912  | 711                 | 1,904     | 7,740             |
| ..... persons..   | 94,534                | 4,953        | 7,949  | 4,313               | 16,779    | 23,832            |
| 1 hired worker.....   | 14,291                | 871          | 1,082  | 239                 | 496       | 4,427             |
| 2 hired workers.....  | 5,546                 | 419          | 360    | 163                 | 385       | 1,580             |
| 3 to 4 hired workers.....   | 3,624                 | 271          | 248    | 110                 | 412       | 920               |
| 5 to 9 hired workers.....   | 2,119                 | 154          | 159    | 117                 | 306       | 509               |
| 10 hired workers or more.....   | 1,473                 | 72           | 143    | 82                  | 304       | 304               |
| ..... farms reporting..   | 16,744                | 979          | 957    | 347                 | 1,266     | 5,743             |
| ..... persons..   | 68,441                | 4,814        | 5,313  | 5,583               | 17,095    | 19,401            |
| 1 hired worker.....   | 10,019                | 491          | 524    | 106                 | 345       | 3,302             |
| 2 hired workers.....  | 2,775                 | 135          | 142    | 23                  | 176       | 1,103             |
| 3 to 4 hired workers.....   | 1,697                 | 118          | 121    | 34                  | 225       | 664               |
| 5 to 9 hired workers.....   | 1,029                 | 125          | 74     | 61                  | 188       | 293               |
| 10 hired workers or more.....   | 1,234                 | 110          | 96     | 123                 | 332       | 381               |
| ..... farms reporting..   | 20,926                | 1,316        | 1,411  | 443                 | 1,216     | 5,582             |
| ..... persons..   | 6,127                 | 471          | 501    | 260                 | 600       | 1,758             |
| ..... farms reporting..   | 10,617                | 508          | 456    | 79                  | 578       | 3,965             |
| <b>Paid on a monthly basis.....</b> farms reporting..                           | 13,639                | 672          | 615    | 245                 | 456       | 2,911             |
| Under \$25 per month.....   | 15                    | 6            | .....  | .....               | .....     | 20                |
| \$25 to \$34 per month.....   | 58                    | 1            | .....  | .....               | .....     | 65                |
| \$35 to \$49 per month.....   | 114                   | .....        | .....  | .....               | .....     | .....             |
| \$50 to \$64 per month.....   | 662                   | 33           | 8      | 5                   | 32        | .....             |
| \$65 to \$79 per month.....   | 719                   | 24           | 5      | 1                   | 4         | 77                |
| \$80 to \$94 per month.....   | 603                   | 9            | 5      | 5                   | 15        | 118               |
| \$95 to \$109 per month.....  | 2,021                 | 101          | 31     | 25                  | 65        | 352               |
| \$110 to \$124 per month.....   | 3,902                 | 185          | 272    | 87                  | 116       | 1,058             |
| \$125 to \$139 per month.....   | 3,458                 | 195          | 208    | 89                  | 164       | 760               |
| \$140 to \$154 per month.....   | 220                   | 7            | 4      | 2                   | 19        | 39                |
| No report of hours worked and wage rate.....                                    | .....                 | .....        | .....  | .....               | .....     | .....             |
| <b>Paid on a weekly basis.....</b> farms reporting..                            | 2,551                 | 171          | 149    | 49                  | 226       | 483               |
| Under \$5 per week.....   | 5                     | .....        | .....  | .....               | .....     | .....             |
| \$5 to \$7 per week.....  | 25                    | .....        | .....  | .....               | 5         | .....             |
| \$8 to \$11 per week.....   | 32                    | .....        | .....  | .....               | .....     | .....             |
| \$12 to \$19 per week.....  | 77                    | .....        | .....  | .....               | 5         | 10                |
| \$20 to \$24 per week.....  | 68                    | 10           | .....  | .....               | .....     | .....             |
| \$25 to \$29 per week.....  | 97                    | 10           | .....  | 5                   | 10        | .....             |
| \$30 to \$39 per week.....  | 518                   | 17           | 25     | 1                   | 59        | 128               |
| \$40 to \$49 per week.....  | 650                   | 36           | 5      | 9                   | 49        | 177               |
| \$50 and over per week.....   | 819                   | 91           | 69     | 32                  | 78        | 104               |
| No report of hours worked and wage rate.....                                    | 220                   | 7            | 4      | 2                   | 19        | 39                |
| ..... farms reporting..   | 3,994                 | 607          | 183    | 80                  | 150       | 856               |
| Under \$2.00 per day.....   | 71                    | .....        | .....  | .....               | .....     | 15                |
| \$2.00 to \$2.99 per day.....   | 47                    | .....        | .....  | .....               | .....     | 5                 |
| \$3.00 to \$3.99 per day.....   | 98                    | 15           | .....  | .....               | 5         | 20                |
| \$4.00 to \$4.99 per day.....   | 120                   | 16           | 1      | .....               | .....     | 20                |
| \$5.00 to \$5.99 per day.....   | 457                   | 44           | 7      | 5                   | 10        | 27                |
| \$6.00 to \$6.99 per day.....   | 548                   | 53           | 27     | .....               | 28        | 145               |
| \$7.00 to \$7.99 per day.....   | 542                   | 85           | 36     | 26                  | 17        | 167               |
| \$8.00 and over per day.....  | 1,735                 | 364          | 98     | 40                  | 84        | 350               |
| No report of hours worked and wage rate.....                                    | 376                   | 30           | 12     | 1                   | 6         | 107               |
| ..... farms reporting..   | 21,497                | 1,272        | 1,781  | 566                 | 1,692     | 8,362             |
| Under \$0.25 per hour.....  | 31                    | .....        | .....  | .....               | .....     | 20                |
| \$0.25 to \$0.34 per hour.....  | 170                   | 5            | .....  | .....               | 65        | 25                |
| \$0.35 to \$0.44 per hour.....  | 347                   | 5            | 10     | .....               | 30        | 71                |
| \$0.45 to \$0.54 per hour.....  | 501                   | 83           | .....  | 10                  | 212       | 77                |
| \$0.55 to \$0.64 per hour.....  | 613                   | 21           | 84     | 11                  | 263       | 237               |
| \$0.65 to \$0.74 per hour.....  | 6,353                 | 216          | 1,182  | 289                 | 637       | 2,269             |
| \$0.75 to \$0.84 per hour.....  | 5,503                 | 246          | 430    | 162                 | 416       | 2,671             |
| \$0.85 to \$0.99 per hour.....  | 7,501                 | 642          | 74     | 70                  | 290       | 2,912             |
| \$1.00 and over per hour.....   | 198                   | 14           | 1      | 10                  | 19        | 60                |
| No report of wage rate.....   | .....                 | .....        | .....  | .....               | .....     | .....             |
| <b>Paid on a piece-work basis.....</b> farms reporting..                        | 2,117                 | 97           | 116    | 118                 | 268       | 617               |

DOL adjusted AEWRs upward each year in the 1950s based on the increase in manufacturing wages, reasoning that manufacturing wages were not affected by the presence of Braceros in the fields. DOL switched to adjusting hourly AEWRs based on changes in field and livestock hourly earnings from the USDA Farm Labor Survey (FLS)

after 1968. The result was hourly AEWRs that were 20 percent to 40 percent higher than average farm wages.

### **DOL used the change in manufacturing wages to adjust AEWRs until 1968**

Though the concept of an AEWR dates back as far as the early 1950s, 52 Fed.Reg. 20503 (June 1, 1987), DOL first established AEWRs for 28 states in 1964.<sup>[6]</sup> 24 Fed. Reg. 19101 (1964), Pl.Ex. 5. | "The formula for determining these rates used the 1950 Census of Agriculture average hourly wage rate for each State adjusted by the 1950-1963 trend in manufacturing wages ... These changes had the effect of generally raising the AEWR for each State above the average agricultural wage ..." DOL Assessment, Appendix to Pl.Ex. 6 at 2. Beginning in 1968, the Department began calculating AEWRs by using the 1964 AEWR as a base and by increasing it annually "by the same percentage change in the Statewide annual average wage rates for field and livestock workers, as surveyed by the United States Department of Agriculture (USDA)." 52 Fed.Reg. 20503 (June 1, 1987).<sup>[7]</sup> This traditional methodology produced AEWRs which were approximately 20% above the average farm wage in the states for which they were published. See Draft H-2A Regulations (March 13, 1987) ("Draft Regulations"), Plaintiff's Exhibit 7 at 31-32.<sup>[8]</sup>

*Notes:* Excerpt from *AFL-CIO v. Brock*, 835 F.2d 912 (D.C. Cir. 1987), available at <https://case-law.vlex.com/vid/afl-cio-v-brock-892075221>.

### **IRCA and H-2A**

The Immigration Reform and Control Act (IRCA) of 1986 legalized unauthorized farm workers and divided the H-2 program into H-2A for farm workers and H-2B for nonfarm workers. IRCA aimed to end illegal migration, and DOL changed the methodology to determine AEWRs, moving away from the previous, ad hoc approaches that had generated AEWRs about 20 percent higher than farmworkers' average hourly earnings. Beginning in 1987, DOL's new methodology used the average hourly earnings of field and livestock, as determined by USDA's FLS, from the previous year to set the AEWR for the current year (Martin, 2007).

Farm worker advocates sued. They argued that setting the AEWR at the previous year's FLS earnings rather than 20 percent more would hurt US farm workers. However, DOL countered that, since IRCA would prevent the employment of unauthorized farm workers, FLS hourly earnings would not be depressed by the employment of unauthorized farm workers. The US Court of Appeals approved DOL's use of FLS hourly earnings from the year before to set AEWRs.

The small sample of farm employers who respond to the FLS means that average hourly FLS earnings can change by 10 to 20 percent from year to year. Farm employers who complain about sharp FLS-wage increases emphasize that the FLS was not designed to obtain the wage data needed to prevent adverse effects on US farm workers.

Bills and resolutions introduced in Congress would freeze the AEWR and require that DOL demonstrate adverse effects of H-2A on US workers before imposing an AEWR. Some of these proposals would make the applicable federal or state minimum wage the AEWR, while others would make the AEWR a fixed percentage higher than the applicable minimum wage, such as 15 to 25 percent higher.

### FWMA and ALWG

The Farm Workforce Modernization Act (FWMA, HR 1603), approved by the House in 2019 and 2021, would have frozen the AEWR and limited its the increase to 3.25 percent a year (Rural Migration News, 2021). It also would have set AEWRs by job title or occupation, which DOL did by regulation effective March 30, 2023.

On February 28, 2023 DOL released a final rule that changed AEWRs from a single wage for most jobs in each state to AEWRs by job title.<sup>16</sup> If USDA’s FLS has an average hourly wage for the job title, that is the AEWR for this job title in each state or region. The Big 6 farming job titles or occupations are combined in the FLS field and livestock workers category (Table 1), where average hourly earnings averaged \$17.74 in 2024 and ranged from \$15 to \$20 across states.

**Table 1. The Big 6 farming occupations are combined in the FLS field and livestock workers wage**

| FLS Field and Livestock Workers (Combined) Occupations |   |
|--|---|
| Standard Occupational Classification (SOC) code        | Occupation Title  |
| 45-2041  | Graders and Sorters, Agricultural Products              |
| 45-2091  | Agricultural Equipment Operators                        |
| 45-2092  | Farmworkers and Laborers, Crop, Nursery, and Greenhouse |
| 45-2093  | Farmworkers, Farm, Ranch, and Aquacultural Animals      |
| 53-7064  | Packers and Packagers, Hand                             |
| 45-2099  | Agricultural Workers, All Other                         |

For all other non-range agricultural jobs not reported in the FLS, DOL sets AEWRs using the statewide or national average annual hourly wages for the occupational in the OEWS.

Many farmers opposed DOL’s 2023 regulations that set AEWRs by job title, leading to House (HR 59) and Senate (S 25) resolutions to nullify the AEWR-by-occupation

<sup>16</sup> <https://www.federalregister.gov/documents/2023/02/28/2023-03756/adverse-effect-wage-rate-methodology-for-the-temporary-employment-of-h-2a-nonimmigrants-in-non-range>



regulation and several lawsuits against DOL. Several bills in 2022 and 2023 proposed to freeze the AEWR, and Section 816 of the Secure the Border Act of 2023 (HR 2) approved by the House would have repealed the AEWR-by-occupation regulation. HR 2, Section 814 mandated a study of farm wage trends over the past decade.

The 14-member bipartisan House Agriculture Committee's Agricultural Labor Working Group (ALWG) released a report in March 2024 with recommendations to reform the H-2A program. The ALWG recommended an AEWR wage freeze that would be followed by caps on how much the AEWR could increase or decrease each year. An ALWG majority recommended an alternative to the FLS to calculate the AEWR, and a majority recommended that farms with an annual gross cash income of less than \$350,000 be exempt from the AEWR (RMN Blog, 2024; House, 2024).

## **AEWR Impacts**

The AEWR has two major purposes: to test the labor market for US workers and to protect US workers from any adverse effects of H-2A workers. AEWRs have long been a source of debate between farm employers and worker advocates, with arguments made by both centering around (1) impacts on US workers, (2) impacts on foreign workers, and (3) impacts on the US agricultural industry. This section reviews these claims and overviews what research has found related to the impacts of AEWRs on US workers, foreign workers, and on US farmers and agriculture.

### **Impacts on US Workers**

One of the primary purposes of the AEWR is to protect US workers from any adverse employment outcomes. These outcomes could be fewer job opportunities or lower wages. Industry and worker advocates voice opposite arguments about the effects of the AEWR for US workers, and while some research has begun investigating these effects, teasing out the AEWR effects from other farm labor market dynamics remains a challenge.

### ***Industry and Worker Advocate Perspectives***

*Farm employers* make several arguments about how the AEWR impacts US workers, most center around the FLS methodology.

1. The FLS was not designed to measure the level of hourly earnings needed to test the US labor market for US workers nor to prevent adverse effects on US workers.
2. The FLS average hourly wages of crop and livestock workers are “pulled up” by the inclusion of higher-paid workers. These can be piece-rate paid workers, management, or workers with a long tenure with the employer. For example, Jodlowski (2025) shows a wide dispersion of wages among US farmworkers, which in the most recent year of OES data (2023) spans \$14.71 as the lower 10<sup>th</sup> percentile wage to \$21.16 as the top 90<sup>th</sup> percentile wage. Including workers at the higher end of the wage distribution and setting the AEWR using the *average* wage leads to a higher AEWR than would be set using the *median*. In 2023, mean hourly farmworker wages were \$17.37 whereas median wages were \$16.57,

indicating a skewed distribution of wages, with a few high earners pulling up the average.

3. FLS average hourly earnings can ratchet upward. Farm employers often have a wage hierarchy, so a 10-percent AEWR increases means that they feel obliged to raise the wages of higher-paid workers by a similar percentage to avoid wage compression and discontent. Farm employers who pay workers a piece rate will also raise the piece-rate and these workers will typically earn above the wage floor. [Rutledge et al. \(2025\)](#) presents causal evidence of this dynamic by demonstrating that increases in the AEWR lead to increases in average domestic farm wages, particularly in states that use more H-2A workers.
4. The sample of employers who report the data to estimate FLS average hourly earnings is small and declining, leading to sometimes dramatic year-to-year changes in FLS average hourly earnings. This can make workforce planning challenging, particularly because new AEWRs are not announced until December. In just the last five years, the FLS sample size has decreased by nearly half—in 2020, the Spring (April) FLS had 34,970 employer responses and a response rate of 54%; in 2025, the Spring FLS had only 16,098 employer responses and a response rate of 45% (NASS, 2020; NASS, 2025).

*Farm worker advocates* criticize the AEWR for not being high enough, being violated, or mis-used:

1. Because the FLS includes undocumented workers, FLS wage estimates may be depressed
2. AEWRs are outdated because they are based on the prior year data, so workers can “lose out” on wage increases when wages rise rapidly. ([Newman, 2012](#))
3. AEWRs can be violated in multiple ways. [Newman \(2012\)](#) and [CDM \(2020\)](#) interviewed H-2A workers and found that some employers for illegally require workers compensate employers when they have to “make up” piece rate earnings to the AEWR. Some employers pay H-2A workers the AEWR and pay lower wages to US workers who perform similar work ([Escalante and Taylor, 2024](#)).
4. Some advocates claim that the AEWR can create a wage ceiling. For example, US workers who may be willing to work for a higher-than-AEWR wage in a high-cost area such as Napa can be deemed unavailable if they insist on \$25 an hour when the AEWR is \$20 ([Whittaker, 2008](#)). Advocates similarly criticize other aspects of the domestic recruitment requirements, claiming that employers use “inappropriate job requirements to “scare away” domestic workers”. (pg. 15 in [Newman, 2012](#))

## **Research**

There is very little research on the effects of AEWRs. This is mostly because isolating the effects of the AEWR from other labor market factors is challenging. The AEWRs are



average hourly earnings from the previous year, so disentangling AEWRs from other factors affecting wage changes is nearly impossible.

Most research concludes that AEWRs tend to **increase the wages** of domestic farmworkers, with **unclear implications for employment**.

**There are several reasons why a rising AEWR could increase the wages of US workers:**

1. Employers using the H-2A program must pay US workers performing similar tasks the AEWR.
2. Employers not using the H-2A program may offer higher wages to US workers to attract enough workers and avoid paying other H-2A costs (housing, transportation, and fees). For these employers, the AEWR becomes a new minimum wage, which means that in a wage hierarchy, some employees will be paid more than the AEWR.
3. US workers in areas with H-2A workers expect employers to offer them at least the AEWR as well.
4. As more H-2A workers enter a region, these effects will be magnified, leading to FLS wage estimates that continue to rise.

The AEWR will rise as more H-2A workers enter a region because current AEWRs are based on the previous year's average earnings of *all* farmworkers, including:

- (1) H-2A workers;
- (2) non-H-2A workers who perform similar work as H-2A workers for the same employer—some of these workers want to work for an employer who offers at least the AEWR;
- (3) and non-H-2A workers with H-2A nearby.

Non-H-2A employers in areas with H-2A workers are more likely to offer the AEWR to remain competitive with nearby H-2A employers. Employers are also like to offer wages above the AEWR to their more productive, longer tenured, or more skilled workers.

Some workers might be paid less than the AEWR:

- (4) non-H-2A workers without nearby H-2A workers;
- (5) non-H-2A workers with limited bargaining power or other employment options (most likely, undocumented workers);
- (6) non-H-2A workers employed by a farm labor contractor who does not employ H-2A workers and who moves the workers from location to location.

As more H-2A workers enter an area, there will be more workers of types (1), (2), and (3), who are paid at least the AEWR and fewer workers of type (4). The implications for workers of types (5) and (6) are less clear, though as wages of other workers rise, the wages of these workers are likely to rise in tandem, and this is reflected in the NAWS data (as shown in **Error! Reference source not found.** for undocumented and documented farmworkers).

Two research studies conclude that AEWRs increase domestic wages and that H-2A workers receive higher wages than US workers:

- [Rutledge et al. \(2025\)](#) attempts to isolate the AEWR effect by using lagged AEWRs to estimate the impact of current AEWRs on the wages of US farm workers. Rutledge estimated that a 10 percent increase in the AEWR results in a three percent increase in US farm worker wages, and a higher five percent increase in wages in the top five H-2A-using states.
- [Simnit and Onel \(2023\)](#) explore differences in the average wages of H-2A versus undocumented citrus harvest workers in Florida and find that H-2A workers earn 18 to 23% higher hourly wages than similar undocumented domestic workers. They also find that H-2A workers picking citrus for piece rate wages had higher-than-AEWR hourly earnings.

**A rising AEWR can impact US farmworker employment in different ways:**

- By raising labor costs, the AEWR might reduce overall employment as employers reduce their reliance on hand labor via mechanization and other changes. The effects of rising minimum wages on employment are unclear.
- By raising the cost of H-2A labor, the AEWR might encourage farm employers to hire more US workers to avoid paying the higher AEWR (and other H-2A costs). However, this response is unlikely if: (1) farmers face a shortage of domestic workers and (2) domestic workers seek employment with H-2A employers to earn the AEWR.
- By raising labor costs, the AEWR might act as an efficiency wage that forces workers to be more productive to keep their jobs, as is the case with sheep and goatherders who are being tasked with looking after larger herds as herder wages rise. This might push out some less productive domestic workers in favor of more productive H-2A workers.
- Two studies suggest that rising labor costs, in the form of state minimum wages, lead to reduced employment for US farmworkers. [Smith et al. \(2022\)](#) found that increases in minimum wages led to a reduced likelihood of employment for farmworkers. [Kandilov & Kandilov \(2020\)](#) found that increases in minimum wages lead to a long-run decline in agricultural employment and that rising minimum wages increase capital investment on farms.

**Our specific responses to the *industry arguments* are:**

1. The FLS, though not designed to measure the level of hourly earnings that would prevent adverse effects on US workers, may still accomplish this purpose. However, the relevant question is whether the AEWR prevents “adverse effects” on US workers?

- “adverse effects” could mean (1) decreases in employment opportunities or (2) decreases in job quality, primarily wages. If the purpose of the AEWR is to prevent these effects rather than promote “favorable effects”, preventing adverse effect would mean a wage rate that does not change employment opportunities or wages for domestic workers.
  - who are the US workers the AEWR is protecting from adverse effects? A third of NAWS workers are US-born, and up to half of the foreign-born workers are unauthorized ([Castillo, 2024](#))
2. The FLS average hourly earnings of crop and livestock workers are “pulled up” by the inclusion of higher-paid workers and are “pulled down” by the inclusion of lower-wage paid workers. This is not an issue if the jobs filled by H-2A workers is similar to the general profile of jobs filled by all farmworkers.

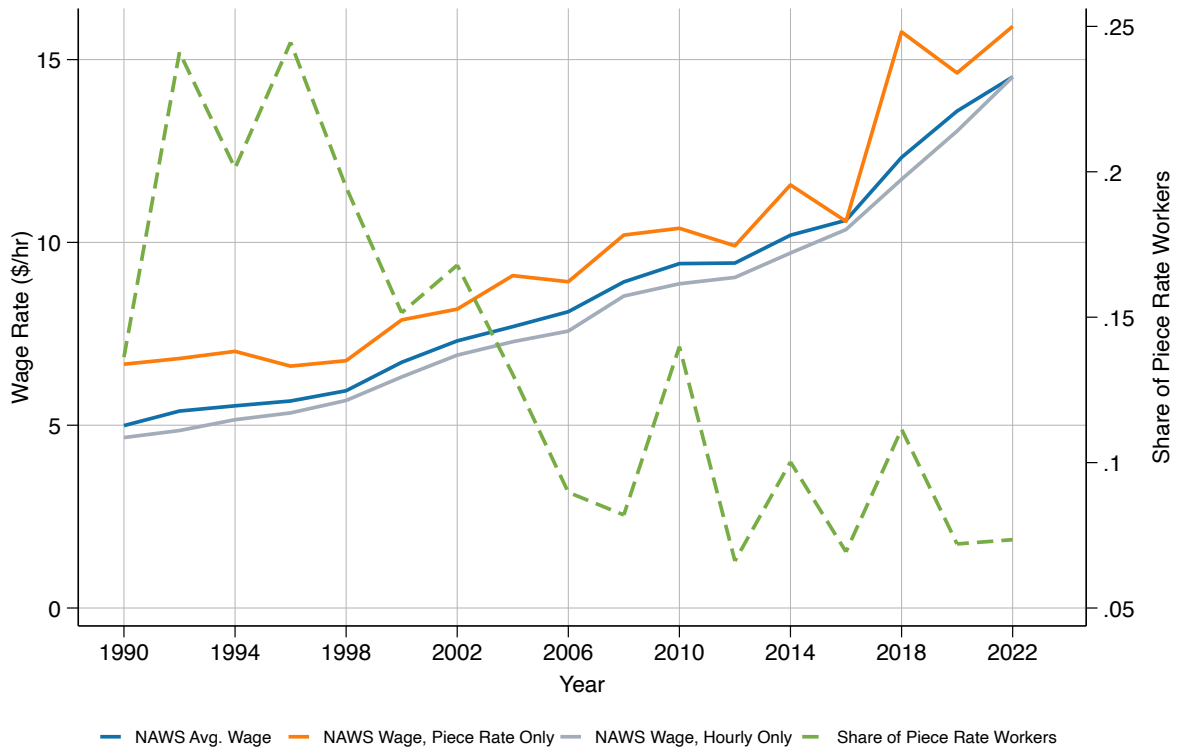
For example, data from the National Agricultural Workers Survey (NAWS) can test the argument that including piece rate paid workers raises the AEWR unfairly. **Error! Reference source not found.** shows these data. On average, piece rate paid workers (orange line) earn more than hourly-paid (grey line) workers, by \$4.00 per hour in 2017/18 and by \$1.38 in 2021/22. This has minimal impact on the average hourly wage rate (blue line) because relatively few crop workers are paid a piece rate (green dashed line, roughly 7.5% in the most recent data). The NAWS only includes US crop workers, but animal workers are less likely than crop workers to be paid a piece rate.

The NAWS can also test the claim that including undocumented workers in the FLS “pulls-down” the AEWR. **Error! Reference source not found.** shows these data. Nationally, the difference the average wages of work-authorized crop workers in the NAWS (orange line) and unauthorized workers (grey line) as minimal. This gap was largest from 2008-2012 at \$1.28 an hour, but since 2016, when H-2A use began to climb, this gap has been smaller than \$0.50 an hour and in the most recent 2021/22 data, unauthorized crop workers earned \$0.03 an hour more than authorized workers, suggesting that including undocumented workers in the FLS does not reduce FLS average earnings and the AEWR. Despite the relatively high share of unauthorized workers in the sector (green dashed line), average wages of all workers (blue line) are similar to the average wages of authorized workers alone.

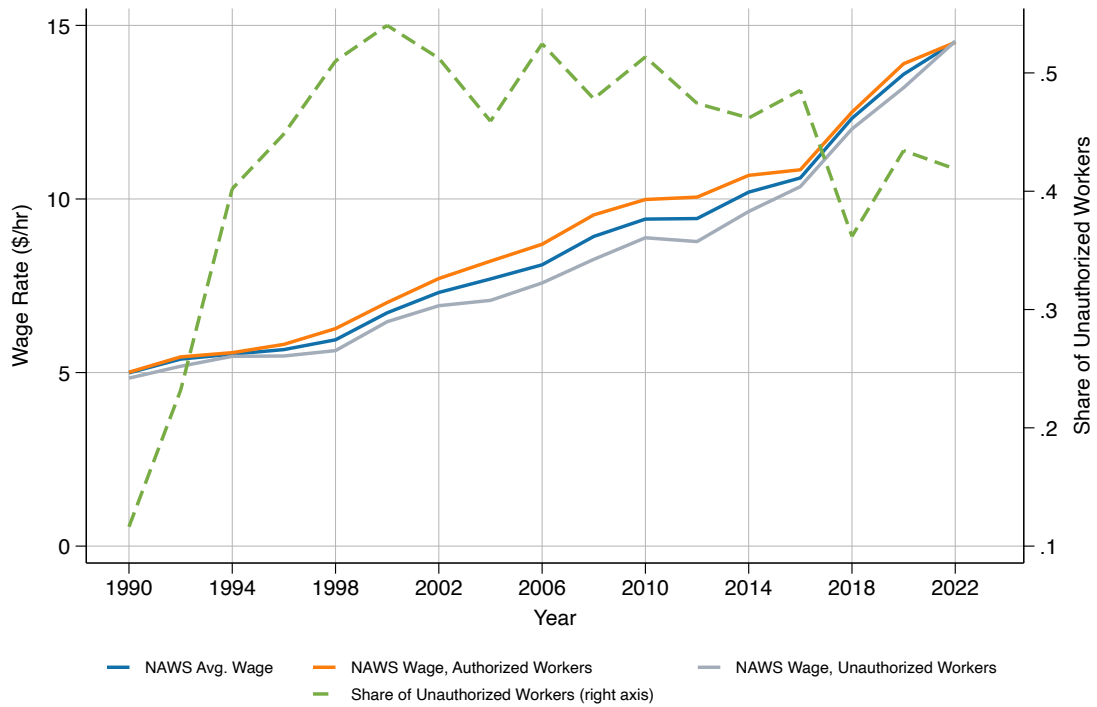
3. FLS average hourly earnings can ratchet upward. This is particularly problematic for an AEWR tied to the wages of farmworkers, and was the rationale behind DOLs 1950s approach to AEWRs, which set increases based on changes in manufacturing wages, reasoning that manufacturing wages were not affected by the presence of Braceros in the fields. This ratcheting effect would be less likely if AEWRs were based on employment costs outside of the agricultural industry: this will still lead to these wage increases for higher-paid workers, but not feed back into an increasingly high AEWR the following year.

4. FLS-based AEWR's are in December for the following year, which limits the time available for workforce planning. Releasing the AEWR's earlier would reduce uncertainty. There are several alternatives to increase certainty, including use of a three-year average to smooth out year-to-year fluctuations and capping year-to-year changes in the AEWR.

**Figure 4. NAWS: Piece rate and hourly earnings, 1990-2022**



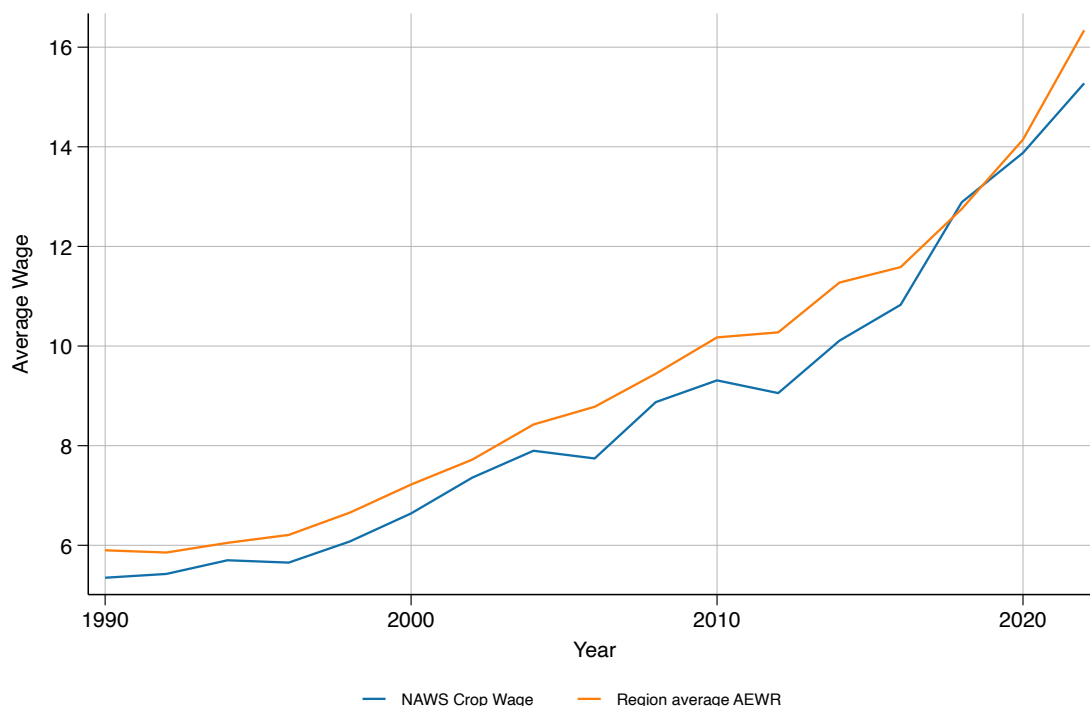
**Figure 5. NAWS: Hourly earnings of authorized and unauthorized workers, 1990-2022**



**Specific responses to the argument that unauthorized depress FLS earnings are:**

1. Wages in the FLS include the wages of undocumented workers, which are only slightly lower than those of documented workers. **Error! Reference source not found.** shows that the wages of unauthorized and authorized workers in the NAWS generally track quite closely. AEWRs are based on wages in the prior year's survey, but the AEWR and average wages follow similar patterns; typically the AEWR is higher; and there is no straightforward way to tie the AEWR to employment costs in the concurrent year as this would make workforce planning and wage and hour compliance nearly impossible. **Error! Reference source not found.** compares the California AEWR and NAWS average wages and shows that AEWRs are typically higher, despite being based on the prior year's data. Even if farm wages rise rapidly in one year (for example, in 2017/18 in California), the growth in the AEWR quickly outpaces this in subsequent years.

*Figure 6. California NAWS Average Wage and AEWR, 1990-2022*



2. There is no easy way to determine how often H-2A workers are underpaid. There are examples of underpaid workers, including [Operation Blooming Onion](#) and lower-profile cases in [Idaho](#), [North Carolina](#). [Escalante and Taylor \(2024\)](#) analyze wage violations in US agriculture and find that from 2020 to 2023, each year there were 5,000 to 7,000 H-2A workers who were found to have unpaid wages, amounting to backpay of \$3M to \$6M per year, fewer than 2 percent of H-2A positions certified each year, which ranged from 275K in 2020 to 379K in 2023.

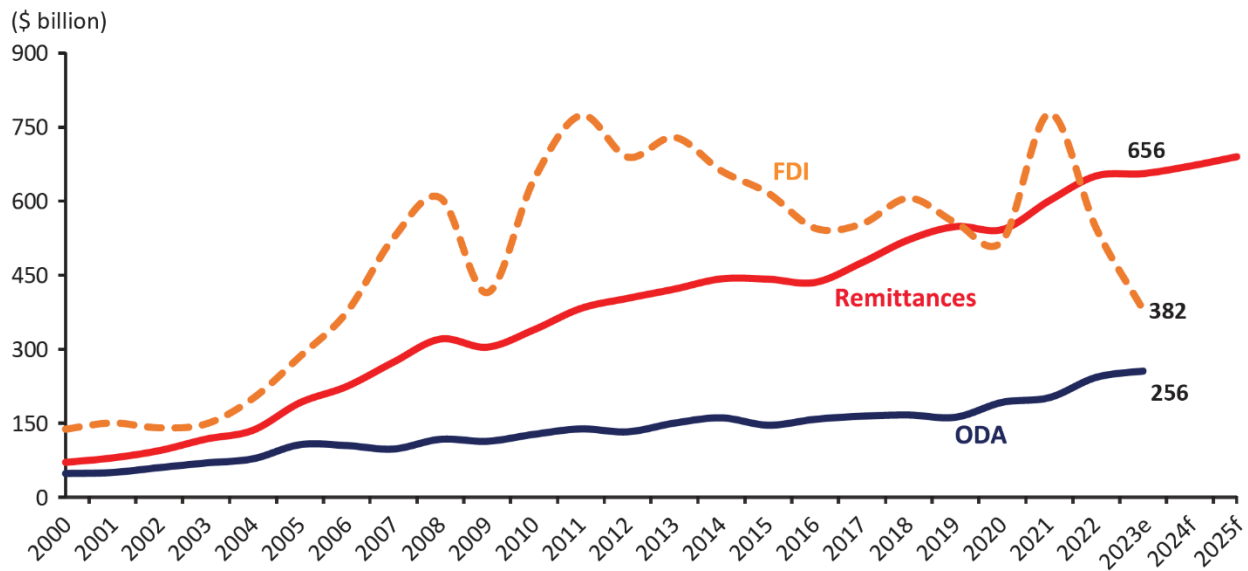
Some H-2A wage violations are not detected. Wage and hour investigations in agriculture have been declining and reached a record low in 2022 ([Costa and Martin \(2023\)](#)). Note that non-compliance with the AEWR is similar to non-compliance with any minimum wage—no matter how the AEWR is constructed, it cannot, itself, prevent violations.

3. Some employers might use other strategies to deter domestic workers from applying for H-2A jobs by including [“unwarranted job requirements”](#) and [“manipulation of job start dates”](#) or [through firing workers for unwarranted reasons](#). Many US farmworkers are employed at wages below the AEWR, often the state minimum wage. When AEWRs are used to deter domestic employees, this suggests that H-2A workers are more desirable than domestic employees due to their higher productivity, guaranteed labor, or other factors that justify their higher cost to the employer. There is no logical reason for an employer to prefer higher-cost H-2A workers over domestic workers if they are equally reliable and productive.

### Impacts on Foreign Workers

Sending workers from lower-to-higher wage countries for several months or years can benefit migrant workers who earn higher wages, their families who receive remittances, and sending countries that receive more foreign exchange. Sending workers abroad is a major source of jobs for workers in Mexico, the Philippines, and other major sending countries, and remittances from workers abroad have become the largest financial flow to developing countries.

**Figure 7. Remittances have become the largest financial flow to developing countries**



Source: World Bank<sup>17</sup> FDI is foreign-direct investment and ODA is Official Development Assistance

Remittance analyses usually focus on how much money migrants remit, the cost of sending money home, and how remittances are spent or invested at home. The amount remitted depends on the parameters of the guest worker program, including whether migrants paid fees or incurred debts before departure, their expenses abroad, and whether remittances simply replace what would have been local earnings or provide the households receiving them with additional funds to save or invest.

Most migrants remit at least half of their foreign earnings, and most use money-transfer firms such as Western Union and MoneyGram to send money home even though phone-based apps can be cheaper.

The impacts of migration on families, communities, and sending countries is well studied. Families receiving remittances are better off than families without remittances. Remittances usually translate into better housing, more investment in children's schooling and health care, and sometimes investment in a small business that provides employment and income for the migrant's family, such as purchasing a vehicle to provide transport services, buying animals or equipment for farms, or moving to urban areas so that children can get more education and have more opportunities.

One universal feature of migration from rural areas of sending countries is that labor migration accelerates changes already underway. Around the world, many youth whose families depended on subsistence farming for generations realize that they will not achieve significant upward mobility by following in the steps of parents and grandparents. Migration abroad to work is sometimes followed by rural-urban migration at home to take advantage of more opportunities.

There is disagreement over the effects of labor migration on sending countries. Sending workers abroad provides more benefits than costs for most workers and their families, but sending countries may not benefit if they are not prepared for rural-urban migration, the Dutch-disease effects of remittances increasing the value of the currency and choking off exports, or the increased trade deficit often associated with migration as migrants return with or import items they became familiar with abroad. Labor migration opens a window for faster development, but in many countries some migration begets more migration rather than leading to stay-at-home development.

A large-scale study of the effects of H-2A remittances is currently underway. The Guestworker Migration Initiative<sup>18</sup> was launched in 2022 to study the effects of guestworker programs on migrants, the places in which they work, and the communities from which they come. Recent press ([Brown, 2025](#)) summarizing this project to date explains the researchers' motivations:

---

<sup>17</sup> <https://documents1.worldbank.org/curated/en/099714008132436612/pdf/IDU-a9cf73b5-fcad-425a-a0dd-cc8f2f3331ce.pdf>

<sup>18</sup> <https://kingcenter.stanford.edu/our-work/research-initiatives/guestworker-migration-initiative>



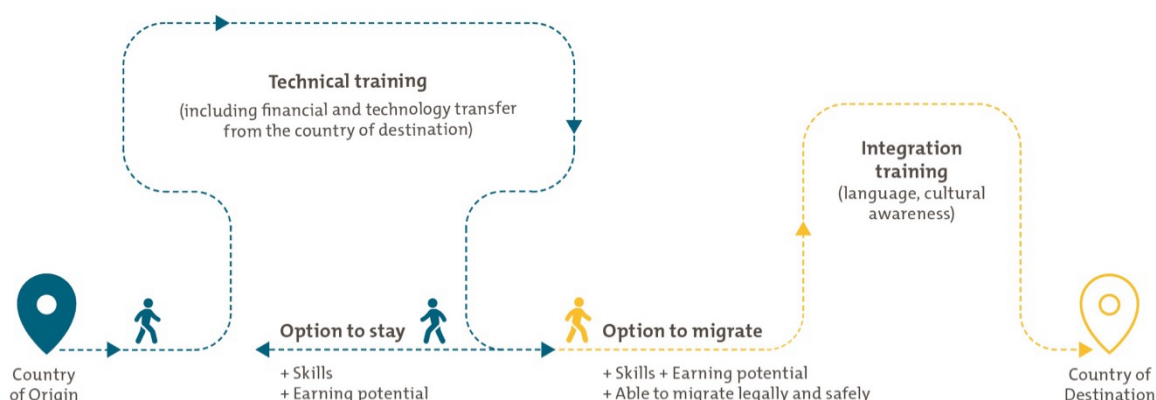
*“There has been increasing negative press about the H-2A program. Some individuals and groups claim the program is modern-day “slave labor” and that all H-2A workers are exploited,” said Enrique Gastelum, CEO of Wafila. “In formulating the research and surveys of the participants, we worked to make sure the researchers could hear directly from the workers entering this program about their experiences with the farmers they work for and their overall experiences.”*

*“As data collection progressed, Morten shared that new questions emerged. Many workers invested their earnings in home renovations, education, or small businesses. This raised additional questions: What influenced these financial decisions? Could future work examine targeted financial literacy programs to help families better manage the influx of income or enhance long-term economic stability for migrant families?”*

Most H-2A sending countries report positive impacts from the program, and some launch campaigns to encourage foreign employers to recruit their citizens and their residents to seek jobs abroad. For example, USAID El Salvador released a promotion video in 2024 to encourage US employers to hire Salvadoran workers.<sup>19</sup> The Center for Global Development outlined a plan, in consultation with governments in El Salvador, Honduras, and Guatemala, that would encourage US employers to recruit H-2A and H-2B workers in these countries.<sup>20</sup> USAID emphasizes the mutual benefits for the US and sending countries, including: value for US farm employers, reducing unlawful migration to the US, raising incomes and advancing development goals in the sending countries, and advancing global skills (Clemmens et al., 2020) The global skill partnership model would facilitate mutual and long-running benefits for the US, El Salvador, Honduras, Guatemala, and other potential partners.

**Figure 8. Labor mobility and win-win outcomes**

### Global Skill Partnership model



<sup>19</sup> <https://www.youtube.com/watch?v=SVKscLLsM0U>

<sup>20</sup> <https://www.cgdev.org/publication/harnessing-northern-triangle-migration-mutual-benefit>

Source: Clemmens et al. (2020). Harnessing Northern Triangle Migration for Mutual Benefit. <https://www.cgdev.org/publication/harnessing-northern-triangle-migration-mutual-benefit>

### Impacts on US Agriculture

There is no research on the direct effects of the AEWR on US agriculture, but there is a long history of research on the effects of rising labor costs in agriculture and other industries. Rising farm labor costs lead to a variety of changes in the industry and economy:

1. Technology adoption. As the costs of workers rise, employers mechanize if labor-saving technology is available and cost-competitive with hand labor. Increasing labor costs prompt farmers and ranchers to invest more in technology development, expediting both the creation and adoption of new technologies. To the extent that these technologies are available and cost-effective, technology adoption can mitigate impacts from rising labor costs. However, for most of the currently labor-intensive tasks in agriculture, existing innovations are either too expensive to be commercially viable or, because they augment labor needs rather than fully replace labor needs (e.g., adoption requires hiring workers with different skillsets to operate or work alongside the equipment), are inefficient mechanisms for addressing labor shortages ([Hamilton et al., 2022](#)). Without technology adoption, rising labor costs can either be translated into rising food costs, or employers can adapt in other ways.
2. Imports. As US production costs increase, some farms might move production to countries with lower labor costs ([Hill & Sayre, 2024](#)) and retailers might procure more from countries that can offer lower cost products ([Calvin et al., 2022](#)), reducing agricultural production in the US. In general, rising imports coupled with reduced domestic production are evidence of lower agricultural competitiveness.
  - a. This can happen through offshoring, or the process of moving a particular task, production process, or entire industry to another country.
  - b. This can also happen through import competition, where rather than movement of production to a different country, US domestic production declines and is replaced by already existing, and likely growing, production abroad.
3. Consumer prices. Rising labor costs can lead to cost-push model inflation and further increases in wages.

*“...when buoyant demand reduces unemployment (at least relative to recent experienced levels), inflationary pressure develops. Firms start bidding against each other for labour, and workers feel more confident in pressing wage claims. If the inflationary pressure is too great, inflation starts spiraling upwards: higher wages lead to higher price rises, leading to*

*still higher wage rises, and so on. This is the wage-price spiral.” ~ Laynard, Nickell, & Jackman (1994), p. 11*

Two other industries are useful comparisons for understanding the effects of rising labor costs:

1. Manufacturing: offshoring, or moving production to a lower-wage country, is a common response to rising US labor costs in manufacturing.
  - a. Factors that contribute to offshoring include changes in trade and coordination costs (e.g., lower tariffs, improvements in shipping technology, changes in input availability, or output market expansion), changes in comparative advantages (e.g., due to changes in the cost of any input, changes in tax incentives, or changes in the skills, knowledge, or technology required), or changes in a firm’s ability to coordinate production from afar (e.g., changes in communication technologies). ([Ellram et al., 2013](#); [Hummels et al., 2018](#); [Johansson & Olhager, 2018](#)).
  - b. Offshoring is only feasible for industries where the production location is not pivotal to the product. For example, while some service industry jobs can be offshored (e.g., phone or internet customer service), many cannot (e.g., restaurant servers, hotel management, surgeons and other workers).
  - c. The effects of offshoring for the “sending” country are debated and differ by occupation and skill-level (Hummels et al., 2018). A few broad conclusions from this literature are that: (1) offshoring raises demand for more skilled workers and decreases demand for lower-skilled workers ([Becker et al., 2013](#)); (2) offshoring contributed to the declining labor share of GDP in the US and manufacturing industry ([Elsby et al., 2018](#)); (3) offshoring reduces employment and earnings for less-skilled workers; and (4) offshoring can raise average industry wages by increasing the incomes and the shares of higher-skilled workers ([Boehm et al., 2020](#)).
  - d. The manufacturing industry is an interesting case study because jobs in this industry are readily moved abroad. There is little importance to keeping manufacturing in the US because they are supplying inputs used by more place-based operations.
2. Construction: The place-based construction industry offers a contrast. Because this industry requires workers in a particular US location to perform the work, it is not easily moved abroad. Rising labor costs are more readily passed-on to consumers and rising labor costs account for a large portion of construction costs.
  - a. The construction industry may be impacted by offshoring when purchased materials move from being produced in the US to abroad.

- b. Construction labor costs generally account for 20-50% of total project budget<sup>21</sup> and construction wages are rising ([Dunn et al., 2005](#); [Guckes & Giffin, 2024](#)).
- c. Higher labor costs drive up the costs of construction projects. The National Association of Home Builders 2024 cost survey shows that 64.4% of a newly constructed home's sale price goes toward construction costs.<sup>22</sup>
- d. In California, low-income housing construction projects typically mandate that contractors pay workers a prevailing wage—often the wages and benefits paid to union workers in the geographic area. Recent research shows that California housing projects from 2020-2023 that paid prevailing wages were approximately \$94,000 higher for new home constructions and \$48,000 higher for rehabilitation constructions, compared with projects not subject to prevailing wage requirements ([Turner Center, 2024](#)).
  - i. Because these housing projects are state-funded, they cannot be used to understand the subsequent rise in costs for home purchasers, but do invoke an important trade-off: “opting to pay prevailing wages is a policy choice: higher wages versus higher construction costs. If policymakers want to ensure the continued production of subsidized housing, either additional financial resources will need to be made available, cost-containment measures must be implemented, or a combination of both should be pursued.”
  - ii. When this prevailing wage policy was first implemented in California, [Dunn et al. \(2005\)](#) estimated that it would lead to the construction of 3,100 fewer low-income housing units built each year.
- 3. Technology: As labor costs rise, firms in manufacturing, construction, and any industry will seek new automation technology.
  - a. The induced-innovation theory, dating back to 1932, describes this process: as relative factor prices (labor, capital, or natural resources) rise, it induces the development and adoption of new technologies that replace or augment the now-expensive input.
  - b. While other factors can also drive innovation, there is strong empirical support for the induced-innovation hypothesis. Two recent and highly regarded economic studies offer clear evidence on the effects of rising labor costs on both technological innovation and adoption. [Hémous et al. \(2025\)](#) find that a 1% increase in low-skill wages induces between 2% and

<sup>21</sup> <https://gobridgit.com/blog/how-to-calculate-construction-labor-cost/>

<sup>22</sup> <https://www.nahb.org/-/media/NAHB/news-and-economics/docs/housing-economics-plus/special-studies/2025/special-study-cost-of-constructing-a-home-2024-january-2025.pdf?rev=00a42a1ce63b4a22a4dba9bda8af954b>

5% more automation innovations. In agriculture, [Clemens et al. \(2018\)](#) show that the termination of the Bracero program in 1965 led to immediate and rapid adoption of readily available technologies.

Agriculture falls somewhere between manufacturing and construction.

1. Offshoring: Many ag products are perishable, making long-distance shipping less feasible or more costly. Many ag products require specific climate conditions to make production feasible, limiting geographic options for offshoring. However, agriculture is not entirely place-based, and there are many avenues for rising labor costs to push production offshore. As of 2023, imports account for 59% of fresh fruit availability and 35% of fresh vegetable availability ([Zahniser, 2025](#)), but only 12% of beef ([Burdine, 2023](#)).
2. Food inflation: There is widespread evidence that input cost increases lead to higher food prices, the unresolved debate is how much food prices increase. [Renkin et al. \(2022\)](#) estimates:
  - a. that a 10% increase in minimum wages translates to a 0.36% increase in the prices of grocery products.
  - b. The average minimum wage increase over their study period was 20%, which raised grocery prices by 0.72%--this more than doubled inflation over the period.
  - c. For households with annual incomes below \$10,000, the annual costs associated with a \$1 minimum wage increase were \$19.
3. Technology adoption: while rising AEWRs and rising labor costs will create incentives to invest in labor-saving technologies, most of the currently manual tasks in agriculture are challenging to automate. Western Growers in 2022 concluded that pre-harvest work can and will be rapidly mechanized, whereas mechanization will be slower for harvest tasks: "...the overall advancement of harvest automation in the fresh produce industry is so far limited, mainly due to technical difficulties in replication the human hand to harvest delicate crops." So, while the AEWR will raise incentives to adopt new labor-saving technologies (e.g., Calvin et al., 2022), most in the industry agree that these technologies are not yet commercially viable.

The overall impacts of rising labor costs for US agriculture are not clear. But it is clear that the industry will need to adapt. We have identified several potential mechanisms for adaptation:

1. Increase worker productivity (e.g., through new technologies)
2. Automate tasks
3. Reduce domestic production & offshore or increase imports
4. Boost revenues by:
  - a. Finding new and profitable outlets for unused or wasted food,
  - b. Innovating with new value-added products or markets, or
  - c. Raising domestic food prices.

## **AEWRs and Alternatives**

Employers must offer and pay the higher of several wages in order to be certified to recruit and employ H-2A workers. The AEWR is usually the highest of the wages, and it is determined differently for three types of workers:

- Most farm jobs have an hourly AEWR equal to the USDA FLS average hourly earnings for crop and animal workers (combined) from the year before
- “Nonfarm” job titles such as truck driver and construction workers have an hourly AEWR set using DOL OEWS average hourly wages
- Range herders with 24/7 work schedules have a monthly AEWR based on the 2016 federal minimum wage for a 48-hour week and adjusted each year by DOL’s ECI

Between 1987 and March 3, 2023, there was one AEWR per state for all non-herder H-2A farm jobs. This AEWR was equal to the average hourly earnings of all field and livestock workers according to the USDA’s Farm Labor Survey (FLS) from the previous year. The FLS requests data from 16,300 US farmers for the week that includes the 12<sup>th</sup> of the months of January, April, July, and October. About 7,200 or 44 percent of the farmers in the sample respond, reporting, by occupation or job title, the number of hired workers (including H-2A and unauthorized workers), weekly gross wages, and weekly hours worked. Weekly gross wages are earnings before taxes and include overtime and bonus pay but not the value of employer-provided housing, meals, or insurance.

The FLS publishes employment, average hours per week, and average hourly earnings for individual occupations at the national level, but only for field workers, livestock workers, and field and livestock workers combined at the regional level. The Big 6 farming occupations are combined in the FLS field and livestock workers category, where average hourly earnings averaged \$17.74 in 2024 and ranged from \$15 to \$20 across states.

The small sample of farm employers responding to the FLS means that average hourly earnings can change by 10 to 20 percent from year to year. Farm employers who complain about sharp FLS-wage increases emphasize that the FLS was not designed to obtain the wage data needed to prevent adverse effects on US farm workers.

What are the alternatives to the current AEWR methodology:

1. What data source and methods would be most suited to set wages that prevent “adverse effects” for US farmworkers?
2. Given that most data sources provide information on wages or changes in wages by industry or occupation, what industry or occupation is appropriate to set wages that prevent “adverse effects” for US farmworkers?
3. What do other countries do? Considering that the US competes for farmworkers in a globally competitive labor market, how does the H-2A program affect US agriculture’s competitiveness?

## Alternative Data Sources and Methods

The following table outlines the primary data sources that could be used to set AEWRs. The table outlines which workers and industries each source covers, provides information on how the data are currently used and how they could be used, and briefly addresses their strengths and limitations. Data sources not included in the table include:

1. The Agricultural Resources Management Survey (ARMS)
2. Agricultural Prevailing Wage Surveys (conducted by state agencies)

And sources that include workers in all industries:

3. The American Community Survey (ACS)
4. The Current Population Survey (CPS)

These sources offer fewer benefits and more drawbacks compared with those outlined in the table below. They have smaller sample sizes (ARMS and CPS), higher costs (prevailing wage surveys), and lack hourly wage measures (ARMS, ACS, CPS).

*Alternative Methods:* Several alternative methods could be used to produce AEWRs that would reduce their volatility and enable employers to do workforce planning over longer time horizons. Some of these options include:

1. Using any data source, but capping year-to-year increases in the AEWR
2. Using any data source combined with year-to-year adjustments to set AEWRs for the subsequent 3-5 years
3. Using any data source and combining multiple years of recent data, as in the OEWS methods, to avoid fluctuations due to small samples sizes

Several other methods could be used to account for limitations of the data sources:

4. Adjusting the FLS wages to account for lower wages among FLC-hired workers who are not included in the survey, with wage data from the OEWS or QCEW
5. Using median or a different percentile of wages from any source so that AEWRs are not pulled up by higher-paid managerial or other workers
6. Adjusting wages from any farmworker-specific source so that AEWRs are not pulled up by H-2A workers
7. Tying AEWRs to wages in nonfarm sectors to mitigate wage ratcheting effects.
8. Settings AEWRs at a percentage of the federal, state, or local minimum wage.



**Table 2. Alternative Sources for Farm Wages**

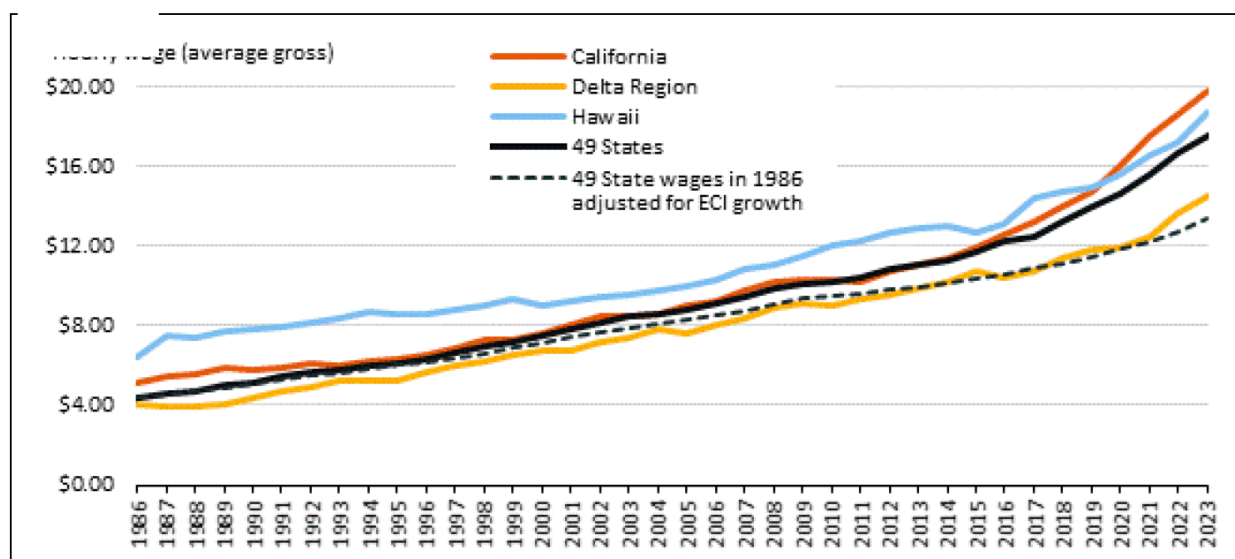
| <i>Source</i>   | <i>Industry/Occupation Coverage</i>   | <i>Wages/Earnings Measure</i>                                    | <i>Potential Methods for Calculating AEW</i>   | <i>Strengths</i>   | <i>Limitations</i>  |
|---|---|--|--|--|---|
| <i>The Farm Labor Survey (FLS)</i>                            | Workers employed directly on farms and ranches  | Avg. hourly (gross) wages  | Currently used to set AEWs for most farm jobs. Prior year wages = this year's AEW<br>Could be used in several ways (see alternative methods above)   | Wages do not include housing or meal costs   | Does not include labor contractors. Includes overtime pay; does not include other industries  |
| <i>The Occupational Employment and Wage Statistics (OEWS)</i> | Workers employed by nonfarm employers and covered by state unemployment insurance (UI) programs               | Avg. and percentile hourly & annual wages                        | Currently used to set AEWs for farm occupations or regions not covered by the FLS.<br>Could be used to set AEWs based on other industry wages  | Wages do not include overtime pay; do include bonuses  | Does not include most farmworkers; H-2A workers are included in some states;  |
| <i>The Employment Cost Index (ECI)</i>                        | An index that measures the change in the cost of wages and benefits by industry, occupation, and union status | Index of wages and benefits                                      | Currently used to adjust herder wages.<br><br>Could be used to adjust the AEW annually using the change in the ECI for (1) wages or (2) wages + benefits; can use the ECI for (3) all private industry workers or (4) workers in a comparable industry | A reputable measure of wage growth for the US economy  | Does not include most farmworkers; does not include wage data; is not available sub-nationally and wage growth likely differs by region |
| <i>The Quarterly Census of Employment and Wages (QCEW)</i>    | Workers covered by state UI programs  | Avg. weekly earnings & total payroll costs                       | Could be used to adjust the AEW annually using the percent change in earnings or payroll for (1) agriculture or (2) a comparable industry  | In nonfarm sectors, this is a near census of employment  | What and who is included varies by state; most include housing and transportation costs; some include H-2A                              |
| <i>The National Agricultural Workers Survey (NAWS)</i>        | US field workers employed in crop production  | hourly wages at current farm job; piece rate at current farm job | Could be used to adjust the AEW annually using the mean, median, or alternative percentile of the NAWS region wage.  | Does not include animal agriculture; undercounts FLC workers; reported by workers, rather than employers | Does not include H-2A workers; Does not include other industries; Small sample sizes and incomplete geographic coverage                 |



## FLS

Between 1986 and the early 2000s, Farm Labor Survey (FLS) average hourly earnings rose at about the same pace as the Employment Cost Index (ECI) for private industry workers—a measure of general earnings growth across the US. After 2015, FLS average hourly earnings rose faster than the ECI in most states and regions, including California, but not the Delta states in the southeast.

**Figure 9. FLS wages rose faster than the ECI after 2008-09**



Source: Handwerker (2024). "Measuring Wages in the Agricultural Sector for the H-2A Visa Program".  
 Notes: CRS presentation of NASS data (Farm Labor Reports) and BLS data (ECI). The dashed line is the FLS national average hourly wage in 1986, adjusted for growth in the ECI of wages and salaries for all private industry workers (ECI series ECU20002A and CIU2020000000000A). FLS wages are for field and livestock workers combined

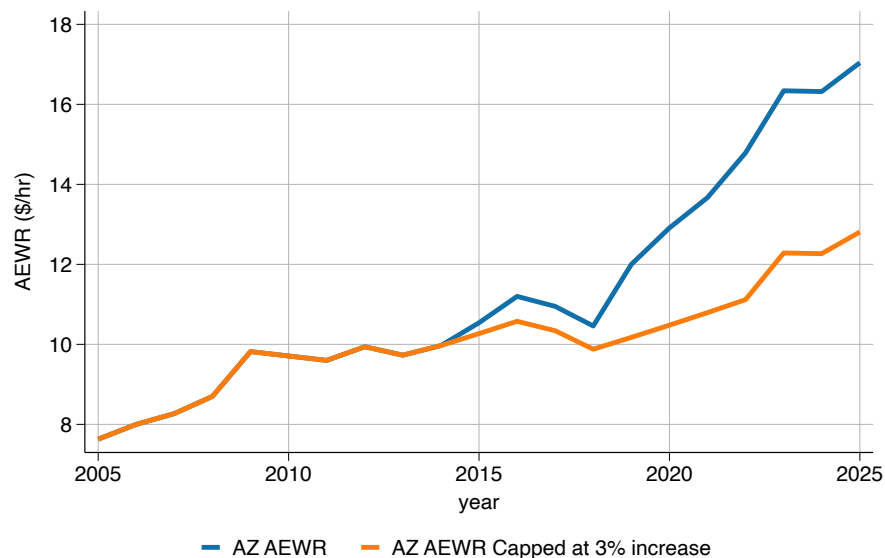
The FLS currently used to set AEWRs could be modified by:

1. **Adjusting the FLS wages to account for FLC-hired workers.** Almost half of H-2A workers are certified to FLCs, who typically pay lower wages than farms that hire workers directly (Castillo et al, 2022). FLCs are not surveyed by USDA's FLS, so their lower wages are not included in the survey used to set AEWRs for farm job titles. If the AEWR were weighted to reflect the share of employment in each state's crop agriculture that is from crop support employment as measured by the QCEW, the AEWR would fall as the share of crop support employment rises.
  - a. An example of how this could work: in California direct-hire accounts for 40 percent and crop support 60 percent of total employment in crops. The OEWS wage for Farmworkers and Laborers, Crop, Nursery, and Greenhouse (SOC code 45-2092) was \$17.63 in May 2023, while the FLS average hourly earnings of crop and livestock workers was \$19.75.

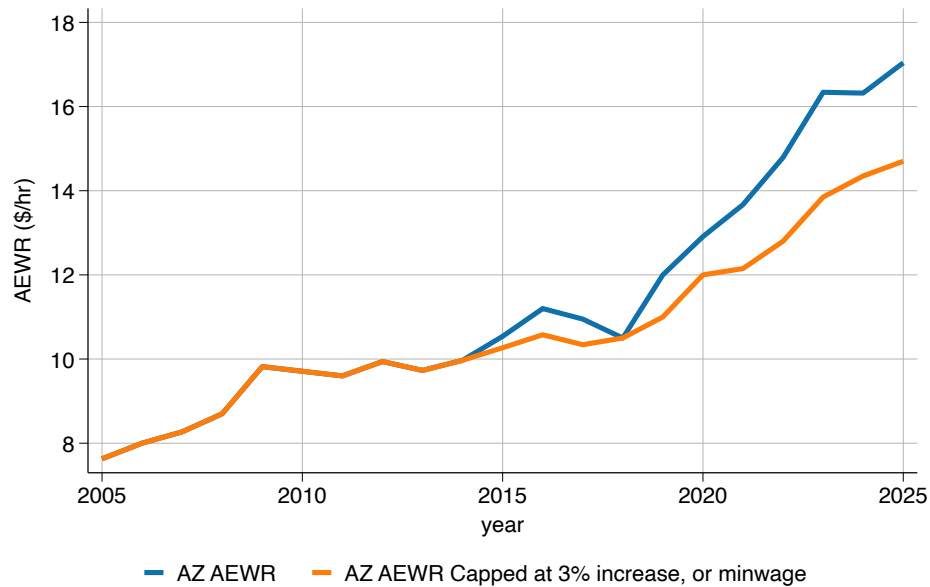
Weighting the OEWS wage by 60 percent, and the FLS wage by 40 percent, produces a weighted AEW of \$18.48 rather than \$19.75 for 2023. Similar calculations for Washington reduce the AEW from \$19.25 in 2023 to \$18.26.

2. **Capping year-to-year increases in the AEW.** Due to small sample sizes, FLS wage estimates can vary dramatically year to year. DOL could continue to use the FLS wages, but cap these year-to-year increases.
  - a. An example of how this could work: If we were to have capped year-to-year increases in the AEW at 3 percent starting in 2014 it would have led an AEW of \$12.40 in 2025 in Arizona, below the state's minimum wage of \$14.70, which would have become the AEW.

**Figure 10. Arizona AEWs would have been \$4.50 lower by capping year-to-year increases**



**Figure 11. Arizona AEWs would have been \$2.30 lower by capping year-to-year increases and meeting minimum wages**



3. **Median, rather than mean, wages.** The FLS currently only publishes average wages but could also estimate and publish median wages. Tying AEWs to medians, rather than means, would eliminate problems from wages being pulled up by very high earners.

## OEWS

DOL in March 2023 issued regulations that require employers to specify the occupation or title of the job they want to fill with H-2A workers. If the FLS does not have wage data for this job title, such as for truck drivers, construction workers, and first-line supervisors, DOL looks to the Occupational Employment and Wage Statistics (OEWS) program to determine the AEW. No one knows the exact number of first-line supervisors in farming, fishing, and forestry, but BLS estimated that the 27,700 farm supervisors who are included in the OEWS are 60 percent of the total.

The OEWS is a survey of over a million nonfarm establishments covered by UI and has a response rate of 65 percent. The OEWS collects detailed data on each job title or occupation, including the wage at various places on the wage scale, such as the 10<sup>th</sup> percentile wage, meaning that 10 percent of workers are paid less than this wage. The median wage is the wage that divides workers in half—half are paid more and half less. The OEWS collects data only from nonfarm employers, so the OEWS wage data cover fewer than 260,000 of the two million US crop farm workers. The OEWS survey was designed to provide accurate point-in-time wage estimates at the national, state, and MSA levels for nonfarm occupations.<sup>23</sup> The OEWS data are released annually with a one-year lag so that the May 2024 estimates will be released in April 2025. The “May” estimates are based on six panels of data collected over a three-year period. For

<sup>23</sup> <https://labormarketinfo.edd.ca.gov/data/oes-wages-about-the-data.html>

example, the May 2024 estimates will be based on survey data from May 2024, November 2023, May 2023, November 2022, May 2021, and November 2021, with the survey data from previous years being adjusted using the ECI.

Table 3. OEWS crop worker estimates for May 2023

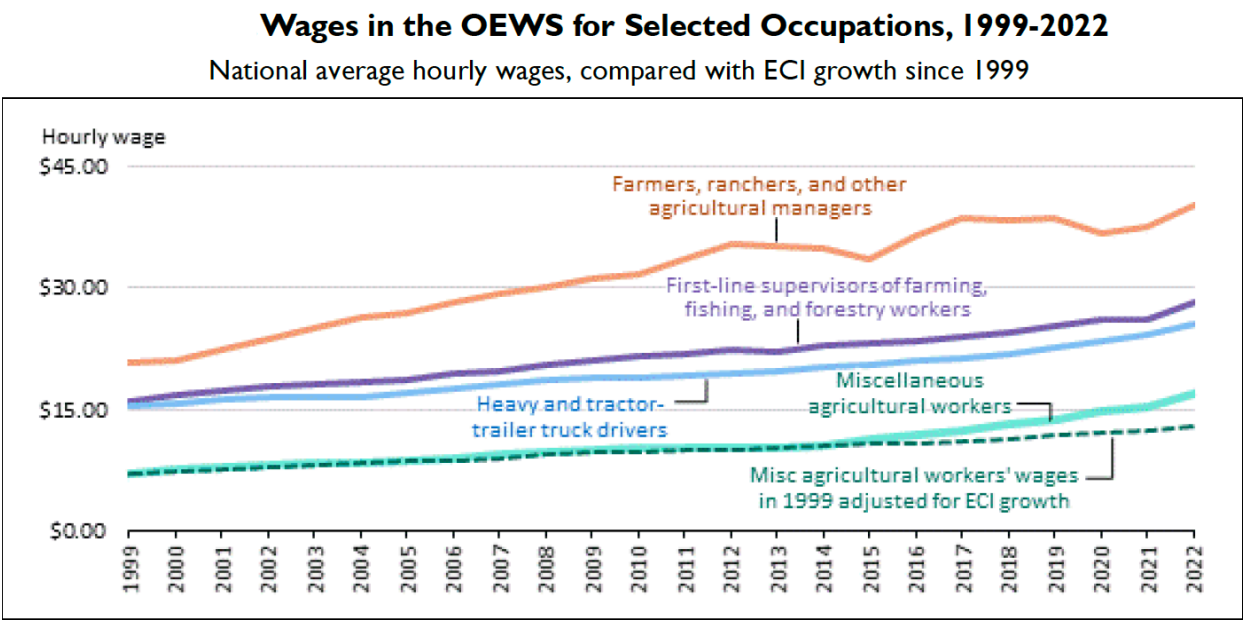
| Employment (1) | Employment RSE (3) | Mean hourly wage | Mean annual wage (2) | Wage RSE (3) |
|----------------|--------------------|------------------|----------------------|--------------|
| 258,730        | 1.1 %              | \$ 17.37         | \$ 36,140            | 0.6 %        |

Percentile wage estimates for Farmworkers and Laborers, Crop, Nursery, and Greenhouse:

| Percentile      | 10%       | 25%       | 50% (Median) | 75%       | 90%       |
|-----------------|-----------|-----------|--------------|-----------|-----------|
| Hourly Wage     | \$ 14.71  | \$ 15.86  | \$ 16.57     | \$ 17.79  | \$ 21.16  |
| Annual Wage (2) | \$ 30,590 | \$ 32,980 | \$ 34,470    | \$ 37,010 | \$ 44,010 |

The OEWS job title closest to the FLS field and livestock job title is Miscellaneous Agricultural Workers, whose average hourly wages rose with the ECI for all nonfarm workers until 2015, when OEWS Miscellaneous Agricultural Workers wages began to increase faster than the ECI (Figure 12).

Figure 12. OEWS Miscellaneous Agricultural Wages began rising faster than the ECI in 2015.



Source: Handwerker (2024). “Measuring Wages in the Agricultural Sector for the H-2A Visa Program”.

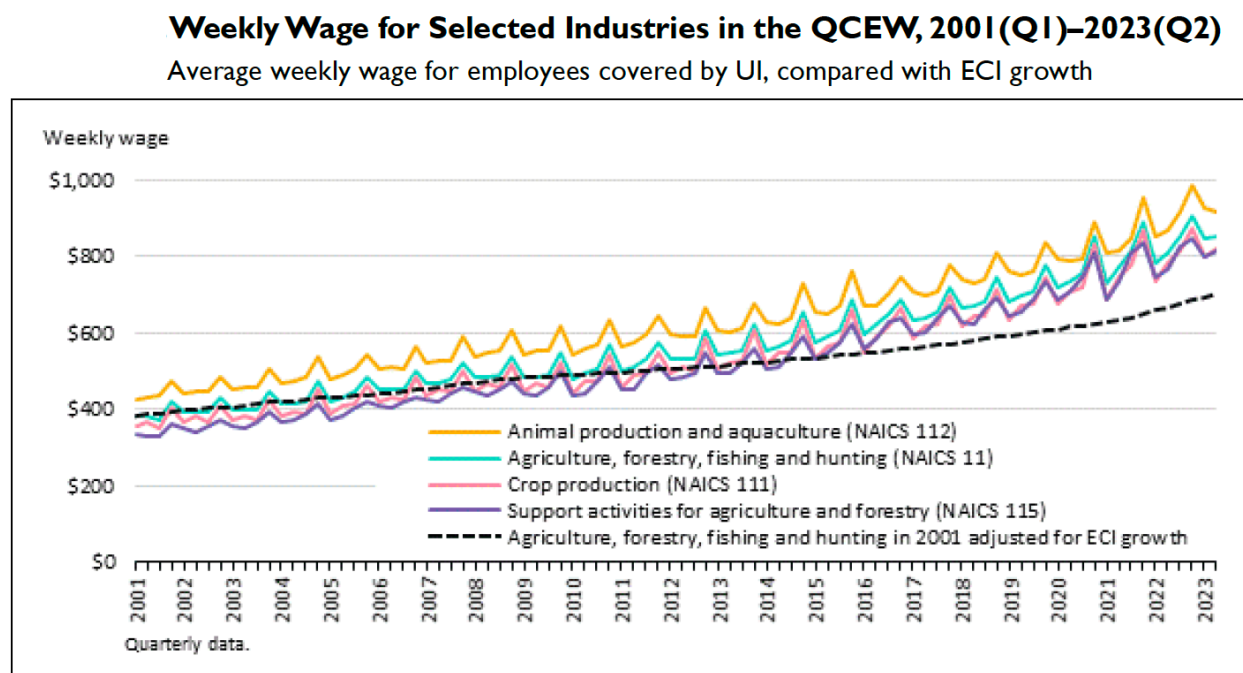
Notes: CRS presentation of BLS data from the OEWS and ECI. The OEWS program cautions against making comparisons of wages over time using OEWS data. The dashed line is the OEWS national average hourly wage in 1999 for “Miscellaneous Agricultural Workers,” adjusted for growth in the ECI of wages and salaries for all private industry workers (ECI series ECU20002A and CIU2020000000000A).

## QCEW

The most comprehensive and timely data on employment and wages is the Quarterly Census of Employment and Wages (QCEW), which obtains data from employers when they pay unemployment insurance taxes. The QCEW is a census of all farm employees in states such as CA and WA, but covers only larger 10/20 farm employers in many states, that is, farms with 10 or more employees during 20 weeks of the year and/or farms paying \$20,000 or more in quarterly wages. The QCEW covers an estimated 80 percent of employment in agriculture and excludes H-2A workers and their wages in many states.<sup>24</sup>

The QCEW publishes average employment, the number of establishments, and average weekly wages for various NAICS codes, such as crop, animal, and crop support businesses. QCEW weekly wages increased faster in agriculture than in the nonfarm sector as measured by the ECI after 2015 (Figure 13).

**Figure 13. Weekly farm wages rose faster than nonfarm wages after 2015**



Source: Handwerker (2024). “Measuring Wages in the Agricultural Sector for the H-2A Visa Program”.

Notes: CRS presentation of BLS data from the QCEW. These are national estimates; estimates are also available at the county level by detailed industry. The dashed line is average weekly wages for workers

<sup>24</sup> We are currently engaged in efforts to identify which states include and exclude H-2A workers from the QCEW, but this will remain a problem as states can change these policies over time.

in the “Agricultural, forestry, fishing, and hunting” industry in 2001, adjusted for growth in the ECI of wages and salaries for all private industry workers.

## *ECI*

After USDA cancelled the FLS in September 2020, DOL proposed to leave FLS-based AEWRs in place for most field and livestock occupations and adjust AEWRs according to changes in DOL’s Employment Cost Index for private wage and salary workers. The ECI measures the change in the cost of wages and benefits by industry, occupation, and union status from a sample of 7,000 private and 1,400 government employers for four survey weeks a year, the pay periods that include the 12th of March, June, September and December. The ECI does not cover agriculture or private households.

The cost of 18 benefits, from Social Security to paid holidays, is calculated on per hour worked basis. The Federal Reserve views the ECI as one of the main lagging economic indicators to assess inflationary pressures.

The ECI for the total compensation of all private sector workers rose from 100 at the end of 2005 to 167 at the end of 2024, up 67 percent in nominal terms. This increase includes:

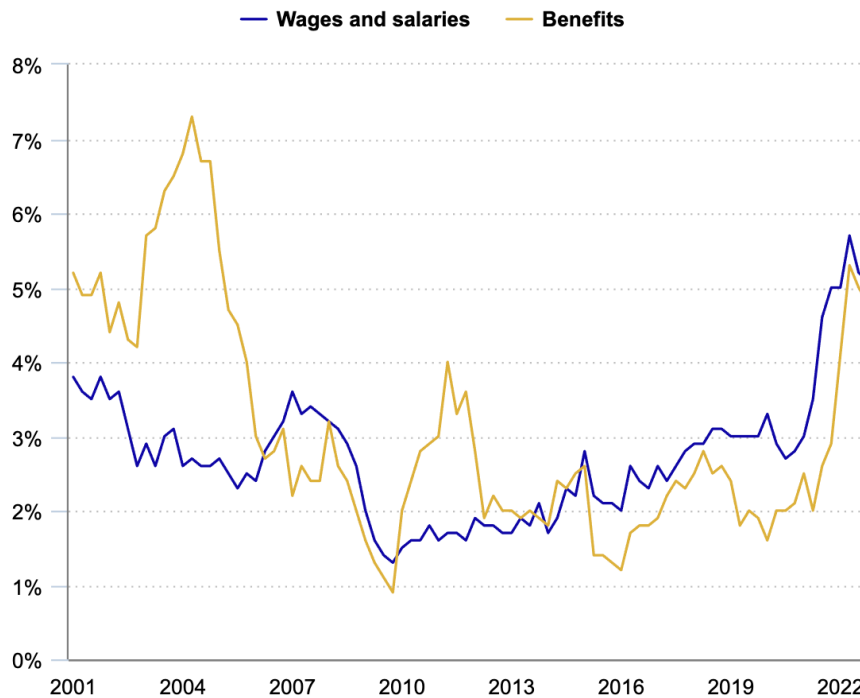
- a 70 percent increase in wages and salaries
- a 61 percent increase in benefit costs

ECI cost indexes are available for particular industries and occupations, by union and non-union status, and for states and metro areas. Farm workers are included with construction and mining workers, where wages rose 65 percent since 2005.

During the early 2000s and again in 2011-12, the ECI for benefits rose faster than the ECI for wages and salaries. However, since 2015, the ECI for wages and salaries has been rising faster than the cost of benefits (Figure 14).

**Figure 14. Since 2015, ECI wage costs have been rising faster than benefit costs**

**Wages and salaries and benefits in private industry, 12-month percent changes, not seasonally adjusted**



Source: <https://www.bls.gov/blog/2023/tracking-employer-costs-for-wages-and-benefits.htm>

Total compensation is comprised of wages and salaries, an average \$27 an hour for private sector nonfarm workers in March 2022, and benefits, \$11 an hour, so that wages are 70 percent and benefits are 30 percent of total compensation. Of the 30 percent benefit costs, 3/4 are for three major types of benefits:

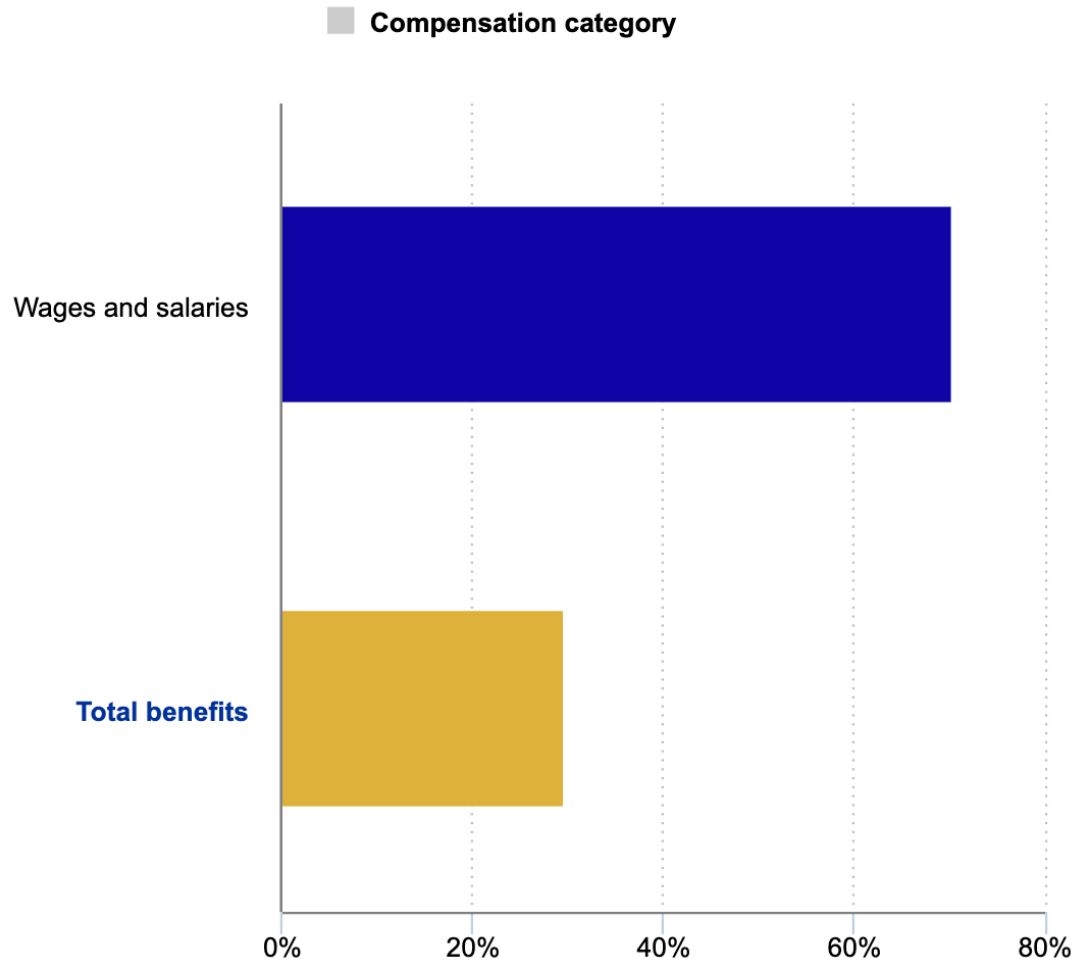
- 7.5 percent goes to legally mandated benefits such as social security (4.8%), unemployment insurance (0.5%), and workers compensation (1.2%)
- 7.5 percent is for paid leave such as holidays (2.2%), vacations (3.8%), and sick leave (1%)
- 7.1 percent is for health insurance

Retirement (3.5%) and supplemental pay for overtime and bonuses (3.5%) comprised the rest of benefits. The three largest single items are health insurance, social security, and paid vacation.

**Figure 15. Wages were 70% and benefits 30% of employee compensation in 2022**

**Share of employer compensation costs, private industry, March 2022**

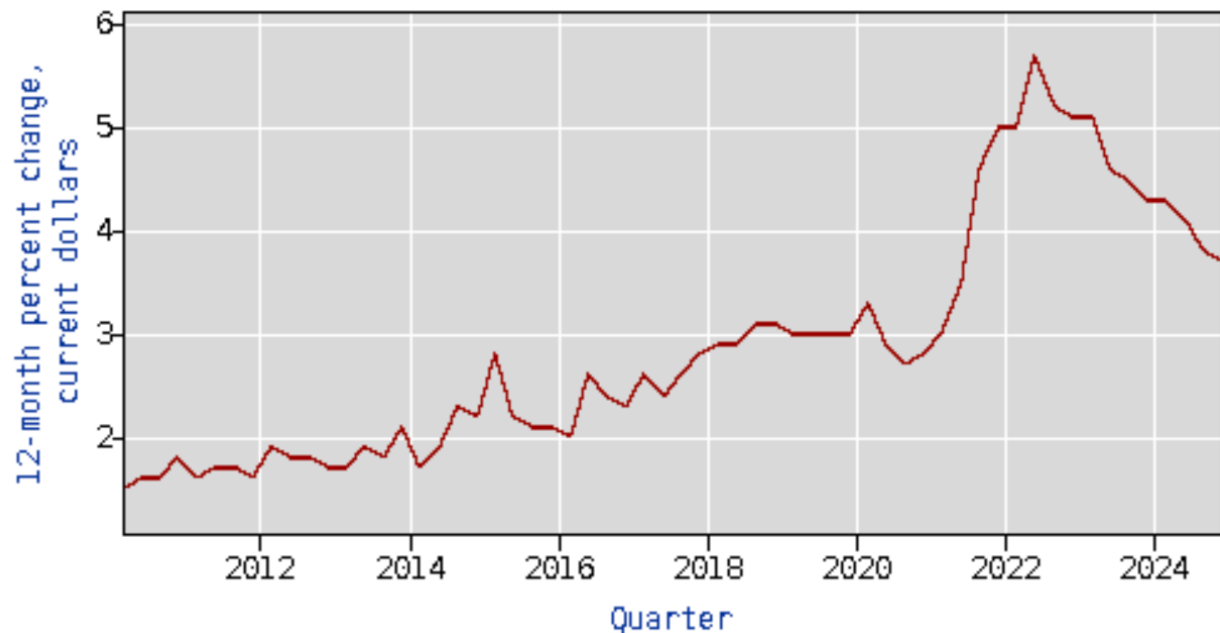
Click or press benefits bar for more detail.



The ECI for all private sector workers rose at less than two percent a year until 2014, then rose by between two and three percent a year until 2020, peaked at five percent in 2022, and was four percent in 2024.



**Figure 16. ECI: annualized increase in wages and salaries for private-sector US workers**



**Figure 17. ECI: annualized increase in benefits for private-sector US workers**



The advantages of the ECI include the large sample and widespread acceptance of the ECI as a reliable measure of labor cost changes by occupation and area. The disadvantage for agriculture is that the ECI does not cover farm wages and benefits. However, if the goal is to find a labor cost index that is not influenced by the presence of H-2A workers, the ECI is a database that DOL uses to adjust herder monthly wages and proposed to use in the past to adjust hourly AEWs.

## Other Countries

Economic development tends to decrease the supply of seasonal farm workers faster than the demand for such workers, leading to complaints of farm labor shortages. Most countries richer than their neighbors have farm guest worker programs that allow farm employers to hire migrants in seasonal- and year-round farm jobs.

Australia, Canada, New Zealand, the US and most Western European countries have farm guest worker programs, as does Mexico (with Guatemala), Costa Rica (with Nicaragua), and Argentina (Bolivia and Paraguay). Many Thai farmers rely on Burmese workers, Malaysian plantations often employ workers from Bangladesh and Indonesia, and Gulf oil exporters rely on migrant workers to fill most private sector jobs, including in agriculture and food production.

Most countries require migrant workers to pay for the cost of their visas and at least some inbound travel costs. Only Canada (except BC) and the US require employers to pay for their visas and provide housing at no cost to farm guest workers. Australia, NZ and the UK allow employers to charge guest workers for housing and local transport to and from worksites. All countries including the US require guest workers to pay for their own food. US employers must provide cooking facilities and transport to supermarkets or provide meals and deduct \$16.28 a day in 2025.

The US sets an Adverse Effect Wage Rate (AEWR) that varies from \$15 to \$20 an hour in 2025 and averages \$17.74. The US AEWR for H-2A workers and US workers in similar employment is:

- More than double the \$7.25 federal minimum wage and higher than state minimum wages such as CA's \$16.50 and WA's \$16.66
- 30 percent more than Ontario's minimum wage
- 10x the \$1.75 Mexican minimum wage (\$2.65 in Mexican areas near the US border)
- Higher than the minimum wage in most other countries except Australia, where the minimum wage for seasonal workers in horticulture is A\$29.33 or \$18.40

A major difference between the US and other countries lies in deductions from wages. Most countries require farm guest workers:

- to deduct from wages required contributions to national pension and health care programs
- to deduct from wages estimated income taxes. Some countries allow workers to apply for refunds of some or all of their contributions to programs from which they are unlikely to benefit, including pensions and unemployment insurance.

Comparisons of major program features suggest that the US H-2A program has one of the highest minimum wages. Because employers pay most H-2A worker costs, H-2A workers can save a higher share of their earnings than farm guest workers in other countries. H-2A workers can save 80 to 90 percent of their earnings, compared with 60 to 70 percent in other countries.

**Table 4. Comparing Farm Guest Worker Programs, 2025**

|                              | <b>Australia</b> | <b>Canada</b> | <b>New Zealand</b> | <b>UK</b> | <b>US</b> |
|------------------------------|------------------|---------------|--------------------|-----------|-----------|
| Local workers 1st            | yes              | yes           | yes                | yes       | yes       |
| Quota 2025                   | None             | None          | 20,750             | 43,000    | None      |
| Visa costs                   | worker           | worker        | worker             | worker    | employer  |
| Transport to worksite        | A\$300           | C\$630        | half               | worker    | employer  |
| Housing                      | worker           | employer      | worker             | worker    | employer  |
| Meals                        | worker           | worker        | worker             | worker    | worker    |
| Local transport              | worker           | employer      | worker             | employer  | employer  |
| Health insurance             | worker           | worker        | worker             | employer  | employer  |
| Wages 2025                   | Min wage         | Min wage      | Min wage           | Min wage  | AEWR      |
| Local currency               | 29.33            | 17.20         | 25.47              | 11.44     | 17.74     |
| USD                          | 18.50            | 11.95         | 14.50              | 14.75     | 17.74     |
| Deductions from worker wages |                  |               |                    |           |           |
| Pension                      | yes              | yes           | yes                | yes       | no        |
| Workers' compensation        | no               | no            | no                 | no        | no        |
| Health care                  | yes              | yes           | yes                | no        | no        |
| Unemployment Insurance       | yes              | yes           | yes                | no        | no        |
| Income taxes                 | yes              | yes           | yes                | yes       | no        |
| Approx max savings           | 65%              | 75%           | 65%                | 65%       | 85%       |

**Notes:** Level 1 Australian seasonal farm workers must earn at least A\$29.33 an hour after July 1, 2024, or 25% above the A\$23.46 base minimum wage

US employers with 100+ workers must provide health insurance

Citizens of EU countries are hired on the same basis as local workers and do not need visas to work in another EU member state

UK limits housing charges to L 69.93/week; workers must have L1,270 to support themselves in UK  
UK workers who earn L11.44/hour for 37.5 hour weeks earn L22,308 a year and pay L779 for National Insurance and L1,948 in income taxes

US AEWRs range from \$14.83 in the Delta states to \$20.08 in Hawaii

## ANZ

Australia and New Zealand have seasonal worker programs that allow farm employers to recruit and employ Pacific Islanders and residents of Timor-Leste to fill seasonal jobs in horticulture, generally for less than nine months. These programs aim to fill vacant

farm jobs, provide migrants with higher earnings, and accelerate economic development in migrant countries of origin.

### **Australia**

Australia is a net food exporter expected to produce farm commodities worth A\$92 (\$58) billion in 2024/25, about the same as California.<sup>25</sup> Over half of Australia's farm sales are crops, A\$52 billion or 56 percent, compared with A\$40 billion worth of livestock or 40 percent. The value of Australia's crops varies more than the value of livestock from year to year due to weather. California farm sales are more crop centric: 70 percent of farm sales are crops and 30 percent are livestock, including \$6 billion worth of grapes and \$10 billion worth of milk.

Australia exported farm commodities worth A\$73 billion in 2024/25, almost 80 percent of its farm production by value. Australia's leading crop exports include wheat, A\$9 billion of exports in 2024/25, coarse grains such as barley, A\$4 billion of exports, and oil seeds such as canola, A\$4 billion of exports. Australia produces A\$1 billion of wine grapes a year, and exports wine worth A\$3 billion a year. California exports 40 percent of the commodities produced by value led by tree nuts, almonds, pistachios and walnuts, as well as dairy products and wine.

Australian livestock is dominated by beef and veal worth \$A18 billion in 2024/25, of which A\$15 billion or 85 percent is exported. Milk is worth almost A\$6 billion, of which over A\$3 billion is exported, while pigs and poultry are worth A\$6 billion and relatively little is exported. Sheep meat is worth A\$5 billion, and A\$4.5 billion or 90 percent is exported. The Australian sheep flock is shrinking toward 65 million head (there were 110 million head in 2000) and shifting from Merino to meat sheep due to low wool prices (wool is worth about A\$2.5 billion a year).

Most foreign workers are employed in horticulture. The value of Australian horticulture production was A\$19 billion in 2024/25, including A\$7 billion worth of fruit, A\$6 billion worth of vegetables, and A\$1 billion worth of tree nuts. The A\$4 billion of horticulture exports are dominated by table grapes and citrus as well as almonds and macadamias.<sup>26</sup>

A peak 75,000 workers are employed in Australian horticulture, including 20,000<sup>27</sup> admitted under the Pacific Australia Labour Mobility (PALM) scheme from nine Pacific Island countries and Timor-Leste.<sup>28</sup> About 500 farmers and labor contractors are approved by the Department of Employment and Workplace Relations (DEWR) to

---

<sup>25</sup>[https://daff.ent.sirsidynix.net.au/client/en\\_AU/search/asset/1036801/0/00\\_AgCommodities202503\\_v1.0.0.pdf](https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1036801/0/00_AgCommodities202503_v1.0.0.pdf)

<sup>26</sup> <https://www.agriculture.gov.au/agriculture-land/farm-food-drought/hort-policy#industry-bodies>

<sup>27</sup> Half of PALM workers in January 2025 were short-term (in Australia less than nine months) and half were long-term, in Australia for 3-4 years with their families and often employed in nonfarm jobs such as meat processing.

<sup>28</sup> What is now PALM began as a pilot in 2008 with a cap of 2,500 migrants, became the Seasonal Worker Program between 2021 and 2022, and has been short- and long-term PALM since 2022.

employ PALM migrants.<sup>29</sup> PALM worker wages and working conditions are set by DEWR and monitored by DEWR and the Fair Work Ombudsman.<sup>30</sup>

PALM migrant workers can be short term, in Australia less than nine months, or long term, in Australia from one to four years. Labor contractors or intermediaries who move short-term workers between farms employ  $\frac{3}{4}$  of short-term PALM migrants, acting like employment agencies but *not* supervising PALM migrants while they work on client farms. However, these labor market intermediaries are responsible under their contract with DEWR for migrant worker welfare.

The horticulture award, which changes each July 1, sets a minimum hourly wage of A\$23.46 after July 1, 2024 for Level 1 workers based on skill and experience.<sup>31</sup> However, seasonal farm workers must earn 25 percent more than the A\$23.46 Level 1 wage or A\$29.33 (\$18.50), giving Australia a minimum wage for seasonal workers in horticulture that is higher than the average US AEWR of \$17.74 and reflecting longstanding Australian union opposition to employers having access to “cheap labor.”<sup>32</sup> Most PALM migrants begin at Level 1 and can be raised to Level 2 after three months in Australia or if they return after working in Australia for a second season.

Migrant workers must pay their visa costs, although most employers front worker visa costs and recoup what they paid via deductions from worker wages. Employers must pay A\$300 (\$188) toward worker inbound travel costs, with the balance covered by the Australian government as a form of foreign aid for source countries.<sup>33</sup> Employers arrange housing with cooking facilities that satisfies DEWR standards or they provide meals, and deduct the cost of housing and food from worker wages. Employers may also deduct the cost of transport from migrant housing to worksites as well as the cost of mandatory health insurance.

PALM employers must ensure that PALM migrants have at least A\$200 a week in take home pay (after taxes and deductions for housing). When PALM migrants are offered less than 20 hours of work a week, the employer must cover the migrant’s housing and transport costs and cannot deduct these costs from wages.

Australia offers farmers other ways to employ short-term foreign workers that are less regulated and costly. Working Holiday Makers (WHMs) or backpackers are youth aged 18 to 30 (35 for some countries) from Europe and many other countries who pay their

---

<sup>29</sup> <https://www.palmscheme.gov.au/sites/default/files/2023-12/PALM%20scheme%20employer%20application%20form%20-%20reference%20only%20version%20-%20December%202023.pdf>

<sup>30</sup> <https://www.fairwork.gov.au/find-help-for/visa-holders-migrants/pacific-australia-labour-mobility-scheme-and-vietnam-labour-mobility-arrangement>

<sup>31</sup> The FWC decision is at:

[https://www.fwc.gov.au/documents/decisionssigned/html/2022fwcfb4.htm?\\_gl=1\\*1fzv4wf\\*\\_ga\\*MTg1NjA3MTM3OC4xNzQyNTczOTAy\\*\\_ga\\_956VPMXW21\\*MTc0MjU5MDIzMy4yLjEuMTc0MjU5MDUwNC4wLjAuMA..](https://www.fwc.gov.au/documents/decisionssigned/html/2022fwcfb4.htm?_gl=1*1fzv4wf*_ga*MTg1NjA3MTM3OC4xNzQyNTczOTAy*_ga_956VPMXW21*MTc0MjU5MDIzMy4yLjEuMTc0MjU5MDUwNC4wLjAuMA..)

<sup>32</sup> <https://horticulture.fairwork.gov.au/working-the-harvest-trail#:~:text=If%20you're%20an%20adult,part%2Dtime%20employees%20and%20juniors.>

<sup>33</sup> Employers must pay A\$300 (\$188) toward worker inbound travel costs.

own travel costs to Australia and pay for food, housing, and transport to work.<sup>34</sup> If WHMs perform at least three months of farm or similar work during their first 12 months in Australia, they receive a second-year work permit that allows them to work in any Australian job, making first-year farm work a ticket to second-year nonfarm work. Six months of farm or similar work allows two more years of work in any Australian job.

WHMs are cheaper than PALM migrants, but they do not provide labor insurance because they can change employers at short notice.

Australia closed its borders during covid, reducing the number of WHMs from over 140,000 in February 2020 to 40,000 a year later. The number of seasonal PALM migrants rose to over 18,000 in 2022-23, reflecting fewer WHMs as well as some PALM migrants absconding and applying for asylum to obtain bridging visas that may provide work permits for any job and free health care. Employers recruit more PALM migrants to replace absconders and PALM migrants who left their employers to find work as unauthorized workers for cash wages. Media reports of worker exploitation often fail to distinguish between PALM migrants with contracts and ex-PALM migrants who are working outside the PALM scheme.

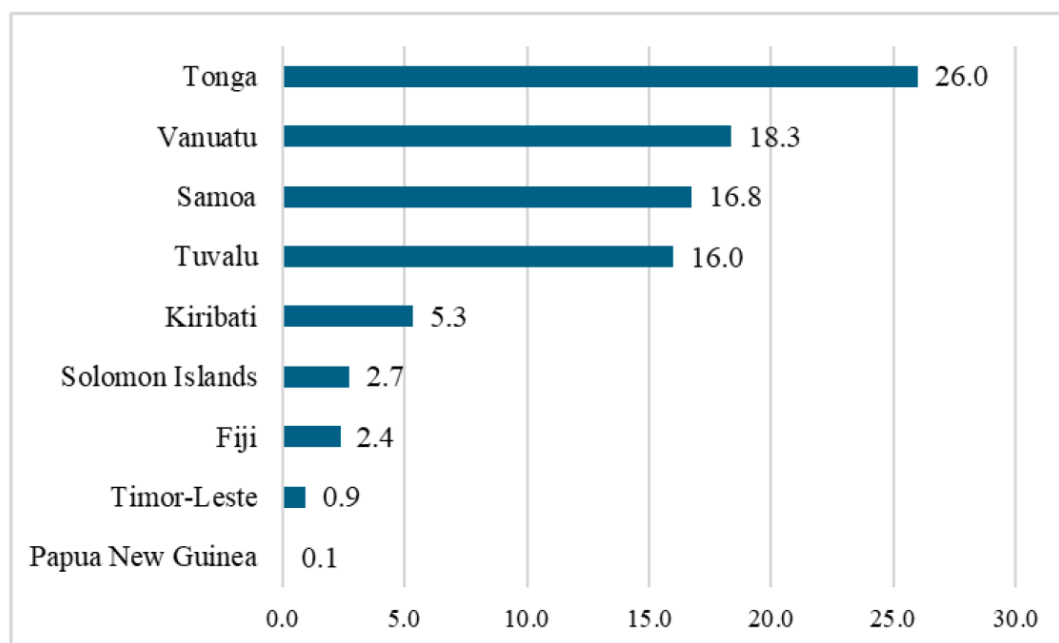
The major Pacific Island countries where most PALM migrants are recruited have small populations, often less than 250,000. Border closures made some Pacific Island leaders realize that Australian farmers needed their citizens to fill farm jobs, prompting Samoa, Tonga, and Vanuatu to argue that Australia should do more to protect migrant farm workers. Several Pacific Islands restricted seasonal worker outflows, especially of the experienced workers preferred by farm employers, although the desire to work abroad for high wages discouraged them from stopping worker outflows. PALM could change after Australian elections in May 2025.

---

<sup>34</sup> <https://immi.homeaffairs.gov.au/what-we-do/whm-program/overview>

Figure 18. A high share of men from some Pacific Islands are employed in ANZ

**Proportion of male population 20-54 years in 2024 in each sending country working in Australia and New Zealand on temporary labour mobility (PALM ST & LT, RSE) programs in 2023-24, per cent**

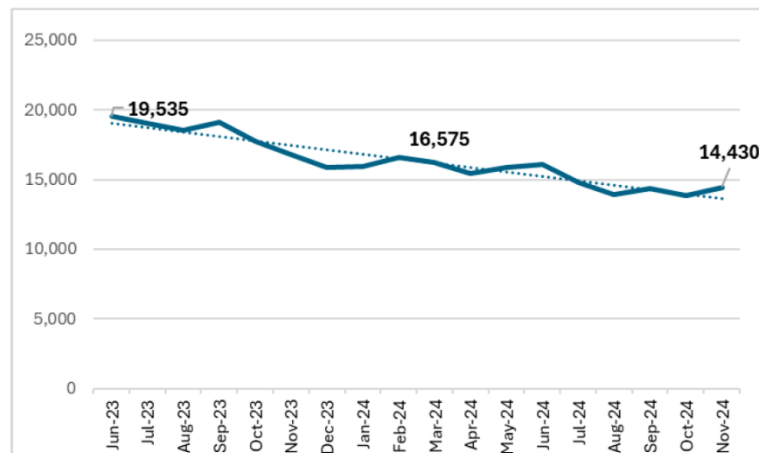


Australia's Labor government elected in May 2022 tightened PALM regulations in ways that increased employer costs, such as requiring employers to pay PALM workers for 30 hours a week averaged over four weeks and requiring employers to ensure that each worker has net wages of at least A\$200 (\$125) a week. The result was fewer PALM short-term workers employed in agriculture (Figure 19).<sup>35</sup>

<sup>35</sup> As PALM costs rose and some sending governments limited outflows, the number of WHMs increased.

**Figure 19. The number of PALM guest workers declined as regulations increased costs**

### **The number of SWP workers in Australia each month between June 2023 and November 2024**



Australia launched another guest worker program with Vietnam that allows up to 1,000 Vietnamese workers to be employed for six months to four years under PALM-like regulations. Advocates for PALM say that the Australian government must give farm employers more voice to determine PALM regulations and reward good employers with faster approvals and lower costs and include employers in annual consultations with sending country governments to resolve issues that could otherwise encourage employers to avoid PALM migrants.

The PALM program may be a case of trying to achieve too many goals. Filling vacant seasonal farm jobs and accelerating development in home countries can offer win-win outcomes. However, with cheaper options to employ foreign workers, many employers opt for WHMs, foreign students, and un- or quasi-authorized workers rather than PALM migrants, suggesting that the demand for short-term PALM migrants to fill seasonal farm jobs may have peaked at 20,000.

### **New Zealand**

NZ is a net exporter of farm commodities, exporting NZ\$57 (USD \$33) billion in 2024/25, led by NZ\$26 (\$15) billion of dairy products, NZ\$11 (\$6) billion of meat and wool, and NZ\$6 (\$2.3) billion of horticultural commodities led by kiwifruit (NZ\$3 billion), wine (NZ\$2 billion), and apples (NZ\$1 billion).

Horticultural employment peaks in April at 40,000, including 15,000 seasonal farm workers admitted under the Recognized Seasonal Employer (RSE) program. There were 17,500 RSE migrants in NZ in 2023/24 employed by 265 farmers, below the cap of 19,500. The cap on RSE migrants has been raised over time as the employers who participate in negotiations over the cap request more RSE migrants.



Most RSE migrants are from Vanuatu, Samoa, and Tonga, where governments are considering restrictions on the outflow of skilled and experienced workers and raising concerns about the treatment of their citizens abroad. Papua New Guinea and the Solomon Islands, by contrast, are trying to increase the recruitment of their citizens to work abroad.

The RSE began in 2007 and helped NZ horticultural commodities to become the country's third leading farm export, after dairy and meat. NZ is remote, so NZ fruit exports emphasize their high quality and GAP and other certifications to justify high transport costs. Farmers say that, by guaranteeing a supply of seasonal workers, the RSE encourages them to invest in new orchards and vineyards.

Farm employer associations and the World Bank collaborated to design the RSE program, which was capped at 5,000 migrants in 2007 and 8,000 in 2009. NZ farmers can be accredited to employ RSE migrants by promising to pay the minimum wage and abide by health and safety regulations, after which they sign Agreements to Recruit (ATR) that specify the number of RSE workers desired and location, work activities, and duration of contracts. Employer accreditation is valid for three years, ATRs are filed annually, and migrants can return year-after-year to the same NZ employer.

Employers must pay half of the round-trip travel costs for RSE migrants, although many pay all worker transport costs up front and deduct the worker's half from wages. Workers pay for their housing in NZ, required medical insurance, and food and other expenses via wage deductions or direct payments from workers to health insurance firms. After deductions, most RSE migrants can save two-thirds to three-fourths of their gross wages.

NZ provides foreign aid to Pacific Island countries, and the NZ Ministry of Foreign Affairs and Trade (MFAT) provides some funding to the Labor Sending Units (LSUs) in Pacific Island countries that screen, test, recruit, and provide pre-departure training to the migrant workers selected by NZ employers. Each island LSU has a work-ready pool of migrants, but many employers prefer to rehire experienced migrants or rely on current migrant employees to recommend new hires.

There are three types of RSE employers: individual employers, FLCs, and grower coops that operate similarly to FLCs in moving RSE migrants from farm to farm. The seven largest RSE employers, each with more than 500 RSE migrants, account for 40 percent of the total and include a coop, two FLCs, and four individual growers. Many smaller employers share RSE migrants via joint agreements with other farms.

Over 90 percent of RSE migrants are men, and over 60 percent have worked in NZ during a previous year, including five percent who have at least 10 years of NZ experience. Employers prefer returning workers, while Pacific Island governments want to send more first-time workers to spread out the opportunity to earn high wages abroad. Few RSE migrants abscond; NZ employers are fined NZ\$3,000 for each absconding worker, and absconding migrants are deported and not allowed to return legally.

The NZ government has been responsive to farm employers, substituting a requirement that employers guarantee at least 120 hours in four weeks rather than 30 hours a week. Workers who return for a third season must be paid at least 10 percent more than the minimum wage of NZ \$25.47 (\$14.50) an hour in 2025. Employers can charge RSE workers for accommodation and local transport.

In recent years, more NZ workers are filling seasonal farm jobs<sup>36</sup> and there is more automation of farm tasks, which may reduce the demand for RSE migrants even as the government plans to increase horticultural exports and the RSE cap. NZ workers who fill seasonal farm jobs are subsidized, and there are many projects to speed adoption of labor-saving technologies in packinghouses and to use picking platforms and other labor aids in orchards to increase worker productivity.

In contrast to Australian PALM, the NZ RSE is often praised for involving employers in program design and for having a cap that signals the government is controlling guest worker migration. The conservative NZ government is considered friendly to farm employers.

## **Canada**

Canada is a major exporter of canola, soybeans, wheat, and beef and pork, but imports most of its fresh fruits and vegetables. Fruits and vegetables are grown in Ontario, Quebec, and British Colombia near the US border; Leamington, the tomato capital of Canada, is just north of Lake Erie. Most Leamington-area farmers rely on guest workers from Mexico and Jamaica to harvest their crops.

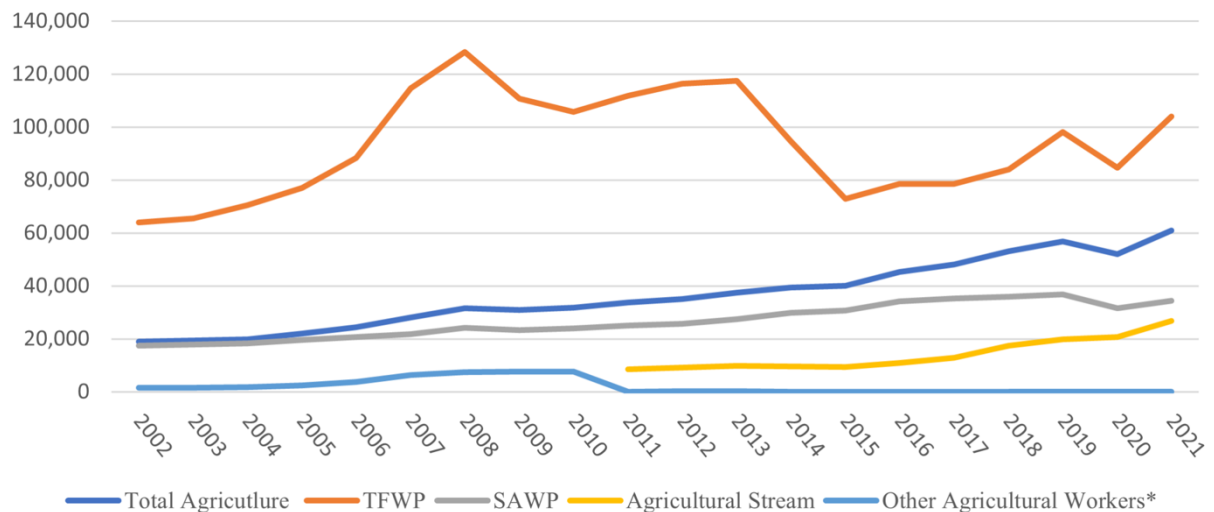
Canada has about 120,000 hired farm workers, including half who are guest or temporary foreign workers (Martin, 2024). Almost 35,000 of the 60,000 farm guest workers are admitted under the Seasonal Agricultural Workers Program (SAWP), which has allowed Canadian farmers to recruit Caribbean (mostly Jamaican) workers since 1966 and Mexican workers since 1974 under the terms of bilateral agreements with migrant-sending nations to fill seasonal farm jobs. Another 25,000 are admitted under the agricultural stream of the general Temporary Foreign Worker Program (TFWP) that allows farm and nonfarm employers to recruit guest workers who fill year-round jobs in agriculture and food processing.

---

<sup>36</sup> New Zealanders in Jobs provides incentives to attract young people to work in the agro-food sector. There is a special emphasis on Māori, who are 16 percent of NZ's population and 18 percent of workers in the agro-food sector.

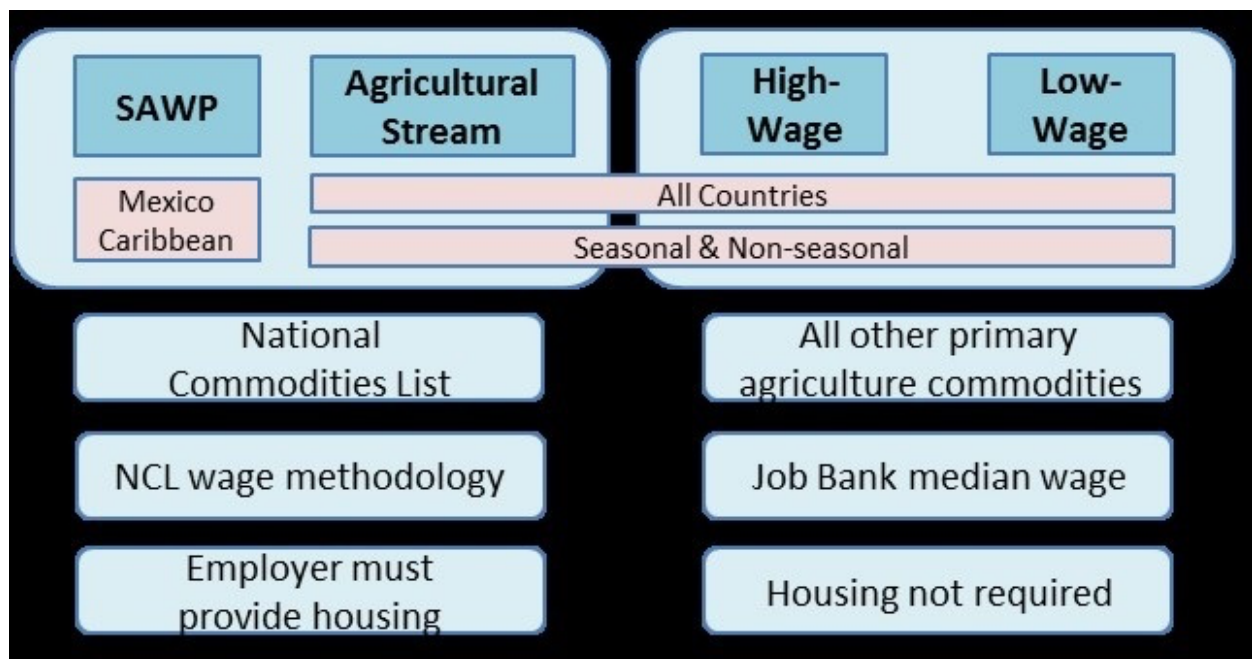
**Figure 20. SAWP migrants are 2/3 of the 60,000 farm guest workers in Canada**

Work Permit Holders in Canada by Year in which the Permits Became Effective, 2002-2021



Source: <https://webapps.ilo.org/static/english/intserv/working-papers/wp079/index.html>

**Figure 21. SAWP migrants can stay up to 8 months; TFWP migrants may remain 2 years**



Source: <https://www.canada.ca/en/employment-social-development/services/foreign-workers/reports/primary-agriculture.html>

Employers set the hiring of guest workers process by obtaining a Labour Market Impact Assessment (LMIA) from the Employment and Social Development Canada (ESDC) at no cost.<sup>37</sup> Once certified or approved, SAWP employers offer contracts of up to eight months to the workers they recruit in Mexico (25,000 workers), Jamaica (9,000), and other Caribbean countries.<sup>38</sup> Each migrant-sending country has liaison officers in Canada to monitor their citizen migrants. SAWP workers can transfer between farm employers with the consent of both employers, the ESDC, and the liaison officer from the migrant's home country.<sup>39</sup>

The SAWP has expanded, doubling since 2000. Two-thirds of SAWP workers are in Ontario, almost 20 percent are in British Columbia, and 10 percent are in Quebec. SAWP workers stay in Canada an average 22 weeks or 5.5 months, and many work 60 to 70 hours a week.

Most farmers advance the cost of roundtrip airfare and visas and deduct half of travel costs from worker wages. SAWP farm employers in Ontario rely on the FARMS association to handle visas and travel to Canadian workplaces, while SAWP farm employers in Quebec rely on a similar FERME. Employers offer free housing to SAWP workers on their farms or nearby,<sup>40</sup> and free transportation between worker housing and farm workplaces. Employers enroll SAWP workers in provincial health insurance programs and deduct the cost from worker wages, which makes SAWP workers eligible for no-cost public health services while they are in Canada.

Most SAWP migrants work a decade or more in Canada, which means that most migrants are returning to the same farm year-after year. Farmers name or specify 80 percent of the guest workers they want to hire rather than selecting from work-ready pools in Mexico and the Caribbean. Employers evaluate each SAWP worker at the end of the season, and migrant advocates allege that some farmers and farm organizations "blacklist" particular migrants who complain about wages or working conditions.

The ILO considers the SAWP to be a model bilateral labor agreement, citing the involvement of Canadian, Mexican, and Caribbean governments in periodic reviews of the program as well as the advisory role of employer organizations. However, the United Food and Commercial Workers (UFCW) union calls the SAWP "Canada's dirty little secret," citing the fact that guest workers are tied to employers by contracts, and they want to satisfy their employers so that they are invited to return. The UFCW's efforts to unionize SAWP workers have often ended in disputes.

---

<sup>37</sup> Most Canadian employers must pay a C\$1,000 fee for a LMIA.

<https://www.canada.ca/en/employment-social-development/services/foreign-workers/agricultural/seasonal-agricultural/requirements.html>

<sup>38</sup> These data are for 2021; 500 SAWP migrants were from Trinidad and Tobago, 250 from St Vincent and the Grenadines, and about 100 each were from St Lucia, Barbados, and Dominica. <https://migration.ucdavis.edu/rmn/blog/post/?id=2372>

<sup>39</sup> Liaison officers are sometimes accused of taking the employer's side in disputes in order to preserve high-wage job opportunities for their citizens.

<sup>40</sup> British Columbia employers may deduct the cost of housing from worker wages; SAWP workers in BC can find their own housing and avoid housing wage deductions.

The separate agricultural stream of the TFWP is more like the H-2A program in the sense that it is not based on bilateral agreements and can recruit workers from almost all countries. Employers must still be certified as needing foreign workers for up to two years. There were about 25,000 TFWP agricultural stream workers in 2021, including 60 percent from Guatemala and 20 percent from Mexico; most of the Guatemalans are employed in Quebec. Employers must have contracts with TFWP agricultural stream workers, but they can charge these workers for housing and other services.<sup>41</sup>

---

<sup>41</sup> TFWP ag stream housing must satisfy National Minimum Standards for Agricultural Accommodations.

## UK

British farmers produce about 60 percent of the food consumed in the country. The UK has a Seasonal Worker Scheme that allows up to 45,000 farm guest workers to be employed in seasonal jobs in horticulture for up to six months a year. Horticulture includes fruit (the UK imports 5/6 of its fruit), vegetables (the UK imports half of its vegetables), and nursery and floriculture commodities.

The total workforce in UK agriculture, forestry, and fishing is 412,000, including farmers and other self-employed workers. There are 53,000 “seasonal, casual or gang” workers, and the 33,000 SWS workers in 2023 were two-thirds of these seasonal workers. Non-EU workers have replaced intra-EU migrants from Poland and other Eastern European countries who have moved on to nonfarm British jobs or returned to their countries of origin.

The UK has had farm guest worker programs since WWII, except for 2014-19 when farmers relied on intra-EU migrants from Eastern Europe to fill seasonal farm jobs who could move to the UK under EU freedom of movement regulations. After Britain left the EU, the SWS was restarted. Most SWS workers are from the ex-USSR stans: Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan.

### Britain allows up to 45,000 migrants to fill seasonal horticulture jobs

**UK Seasonal Worker Visa**

- GOVT ANNOUNCED 45,000 SEASONAL VISAS
- HORTICULTURE (FRUIT PICKING, VEGETABLES)
- OPEN TO ALL COUNTRIES

**45,000 Worker Visas Available**

Employers must try to recruit local workers before hiring SWS migrants, but there is no labor certification process that involves supervised efforts to recruit local workers at pre-specified wages as in the US.

Six scheme operators recruit and transport up to 45,000 SWS workers to fill seasonal jobs for up to six months, while two operators recruit up to 2,000 poultry workers for three months before the Christmas holidays. Once certified by the Gangmasters and Labour Abuse Authority (GLAA), each scheme operator can recruit and transport up to 7,500 workers to the UK.

**Scheme operators recruit and transport SWS workers to the UK**

## **Top UK Seasonal Work Visa Sponsorship Companies**

- AG Recruitment.
- AB-Agri.
- Fruit Full Jobs.
- Abbey Fruit.
- FGS Agri.
- Pro-Force.
- Government of UK.
- JEPCO
- NFU (National Farmers Union).
- AgSpace Agriculture Ltd.

Scheme operators charge farm clients an upfront fee and /or a weekly rate for the SWS workers they bring into the UK. Some scheme operators house SWS workers and transport them to farm workplaces, and some farm employers reported providing extra benefits to SWS workers, such as subsidized meals or trips to local attractions.

Scheme operators recruit workers and provide them with the Certificates of Sponsorship that recruited workers need to obtain visas from British consulates in their home countries. Scheme operators can lose their right to recruit guest workers if more than five percent they recruit are rejected for visas. SWS workers must “cool off” in their home countries for at least six months between seasonal jobs in the UK.

SWS workers must pay for their visas and the cost of transport to the UK, about £1,000 to £2,000 for workers from Kyrgyzstan. Once in the UK, SWS workers earn at least £11.44 for at least 32 hours or £1,360 a week in 2024, and employers should not expect them to work for more than 48 hours a week. SWS workers must arrive with at least £1,270 to support themselves. Scheme operators may provide a financial guarantee that their SWS workers will not need public support, which waives the need for workers to show they have £1,270 in personal funds.

**Table 5. Most SWS migrants are from the ex-Soviet stans**

| Top 10 countries and percentage of yearly total |     |                      |     |                      |     |                      |     |  |     |
|---|-----|----------------------|-----|----------------------|-----|----------------------|-----|--|-----|
| 2019  |     | 2020                 |     | 2021                 |     | 2022                 |     | 2023                                       |     |
| Ukraine   | 90% | Ukraine              | 88% | Ukraine              | 67% | Ukraine              | 21% | Kyrgyzstan                                 | 24% |
| Moldova, Republic of                            | 7%  | Moldova, Republic of | 4%  | Russian Federation   | 7%  | Kyrgyzstan           | 13% | Tajikistan                                 | 17% |
| Russian Federation                              | 2%  | Belarus              | 3%  | Bulgaria             | 4%  | Uzbekistan           | 12% | Kazakhstan                                 | 15% |
|   |     | Russian Federation   | 2%  | Tajikistan           | 4%  | Tajikistan           | 11% | Uzbekistan                                 | 13% |
|   |     | Georgia              | 2%  | Belarus              | 3%  | Nepal                | 8%  | Ukraine                                    | 8%  |
|   |     |                      |     | Moldova, Republic of | 3%  | Kazakhstan           | 8%  | Moldova, Republic of                       | 7%  |
|   |     |                      |     | Romania              | 2%  | Moldova, Republic of | 7%  | Romania                                    | 3%  |
|   |     |                      |     | Uzbekistan           | 2%  | Indonesia            | 4%  | Bulgaria                                   | 3%  |
|   |     |                      |     | Nepal                | 2%  | Romania              | 3%  | Macedonia, The Former Yugoslav Republic of | 3%  |
|   |     |                      |     | Kazakhstan           | 1%  | Bulgaria             | 3%  | South Africa                               | 1%  |

SWS workers pay up to £70 a week for housing arranged by their employer or scheme operator, which sometimes includes bedding and utilities and is usually located on or near the farm workplace. Some NGOs complain that housing has become a profit center for some employers and scheme operators, reflected in high charges to workers for housing and utilities.

SWS workers can be transferred from one farm to another by their scheme operator. Up to 25 percent of SWS workers change farm employers while in the UK, which is possible if the scheme operator provides workers to both farms. Some farm employers complain that SWS workers check with friends at other farms and request transfers to maximize their hours of work and earnings. Some employers report paying fees to scheme operators in order to obtain transferred workers.

Scheme operators give preference to larger employers who hire hundreds of SWS workers. Some large employers of SWS workers believe they could save money by recruiting seasonal workers directly in countries of origin rather than relying on scheme operators.

Many farm employers want their best SWS workers to remain longer than six months and to become managers and year-round workers. Others complain that up to half of their SWS employees depart before the end of their visas because they earned enough and want to return home.

SWS workers are young, in their early 30s, 75 percent are men, and most are from the Central Asian stans; recruitment was halted in Indonesia and Nepal after reports of workers paying fees to be introduced to scheme operators. Many SWS workers take out loans in their home countries to cover pre-departure costs. Many employers prefer



experienced SWS workers to British workers because of their higher productivity and better attitudes.

Almost all countries richer than their neighbors have programs that allow farm employers to fill seasonal jobs with foreign guest workers. The US H-2A program is distinguished by:

- high AEWR: only Australia has a higher minimum wage, and some US states have AEWRs that are higher than Australia’s minimum wage.
- employer-paid costs: US farm employers pay more of the costs involved in moving workers over borders than farm employers in other countries
- longer employment: the H-2A program allows H-2A workers to remain up to 10 months, longer than most countries, However, average H-2A contract lengths have been declining toward 5.5 months, while migrants in Australia and New Zealand often remain the maximum period allowed. One reason for ever-shorter H-2A contracts may be because US employers pay more guest worker costs.

**Table 6. The US allows H-2As to remain longer than other countries**

| International comparison on Seasonal Worker Visa timings |  |  |                                 |  |   |          |
|--|--|--|---------------------------------|--|---|----------|
|  | Australia  | Canada                                     | Germany                         | New Zealand  | US  | Ireland* |
| <b>Visa/ permit length:</b>                              | PALM: up to 9 months.  | 8 months between 1 January and 15 December | 90 days within a 180-day period | Up to 7 months in 11 months (9 months for citizens of Tuvalu and Kiribati) | H2-A: increments of up to 1 year, maximum of 3 years. | 7 Months |
| <b>Cooling off:</b>                                      | PALM: 3 months after a 9 month stay (unless transferring to a long-term visa). | Minimum 15 December to 1 January           | Based on 90/180 rule.           | After 11 months has elapsed since first entering NZ.                       | 3 months, after reaching 3-year maximum stay.         | 5 months |

MAC. 2024. Seasonal Worker visa review.  
<https://www.gov.uk/government/publications/seasonal-worker-visa-review>

## H-2A Total Costs

AEWRs are one element of the total cost of H-2A workers. Farm employers also incur government fees and recruitment, visa issuance and travel costs to find and bring H-2A workers to US worksites, the cost of housing and transportation while H-2A workers are in the US, and the cost of return transportation when H-2A workers finish their contracts. AEWRs range from \$15 to \$20 an hour, and non-wage recruitment, housing, and transportation costs can add \$5 to \$10 to the cost of H-2A workers.

The government fees begin with DOL. There is no fee to apply for certification, but employers pay \$100 plus \$10 per job after being certified. Employers attach DOL’s

certification to a DHS petition, Form I-129, and pay a \$460 or \$530 fee that supports DHS checks to determine that the employer is legitimate and that neither the employer nor the recruiting agent abroad charged recruitment fees.<sup>42</sup> USCIS also charges a \$300 (small employer) or \$600 asylum filing fee for each Form I-129 petition.<sup>43</sup>

USCIS forwards approved petitions to the DOS consulate abroad specified by the employer, where the foreign workers who have been recruited by the employer are fingerprinted and may be interviewed by US consular officers. Employers pay the \$190 cost of each H-2A visa and an additional \$100 for fingerprints and photos, plus worker hotel and meal cost during the typical three-day visa-issuance process.<sup>44</sup> After receiving visas, H-2A workers are bussed or flown from consulates to US ports of entry, where they are inspected as they enter the US before continuing to their US workplace (Martin, 2007).

Employers have \$1,000 to \$2,500 “invested” in each H-2A worker before they arrive at the workplace (Castillo et al, 2024). After arrival, employers must provide housing at no cost to H-2A workers, food or cooking facilities,<sup>45</sup> and transportation between the housing and the workplace. These non-work costs range from \$15 to \$30 a day, or \$3,000 to \$9,000 for a worker who is in the US for six months. This makes the recruitment, transport, and housing costs of an H-2A worker who is in the US for six months \$4,000 to \$12,000.

H-2A workers earn \$15,000 to \$25,000 while in the US for six months, making their average total cost \$20,000 to \$35,000; non-wage costs are 25 to 50 percent of worker earnings. If employers hired seasonal US workers and paid them the same \$15,000 to \$25,000 in wages, they would incur payroll taxes of about 12 percent that they do not pay on the wages of H-2A workers while saving on the recruitment, transport, and housing costs of H-2A workers.

## Conclusions and Recommendations

This report reviewed the origins, methodologies and impacts of AEWRs, and compared the US H-2A program to seasonal farm worker programs in other countries.

The major conclusions include:

1. AEWRs were introduced in the early 1960s when US farm workers were not covered by federal minimum wage laws. A major justification for AEWRs was to offset the stagnation of piece rate wages that were paid to Braceros to hand pick cotton in Texas and California.

---

<sup>42</sup> The \$460 I-129 filing fee is for small employers and non-profits. USCIS fees are higher if the employer names the H-2A workers to be employed.

<sup>43</sup> <https://www.uscis.gov/sites/default/files/document/forms/g-1055.pdf>

<sup>44</sup> Workers who report that they paid recruitment fees can be denied visas or prevented from entering the US: <https://www.farmers.gov/working-with-us/h2a-visa-program>

<sup>45</sup> If employers provide meals, they can deduct up to \$16.28 a day from worker wages for food costs. If employers provide cooking facilities, they must provide weekly transportation so that workers can purchase their own food.

2. When USDA announced the cancellation of the FLS, DOL proposed to freeze AEWRs for most job titles and then use the change in BLS Employment Cost Index for private sector wages and salaries from the year before to adjust AEWRs.
3. DOL has not explored the concept or tried to measure “adverse effects” since the 1959 DOL consultants report that pointed to stagnant cotton piece rate wages as the reason for DOL to develop an adjustment mechanism to ensure that farm wages are not held down by foreign guest workers.
4. Research suggests that AEWRs can “pull up” the wages of US workers because some farm employers raise the wages they offer to US workers (1) to avoid H-2A housing and other costs and (2) because US workers in areas with H-2As know the AEWR and expect to be paid the AEWR.
5. Higher wages attract few US workers to fill jobs normally held by H-2A workers. California phased in overtime for farm workers, raising the minimum monthly wage for 24/7 herders from \$2,200 a month in 2019 to \$4,800 a month in 2025. There was no increase in H-2A herders; the US workers employed on the state’s sheep ranches are mostly ex-H-2A herders who obtained immigrant visas.

There are several options:

1. Require DOL to define what adverse effects the AEWR aims to prevent, and to study alternative measures of adverse effect. If DOL cannot define and measure adverse effects, what purpose is served by an AEWR that exceeds the federal, state, or local minimum wage?
2. Continue with the current methodology, but
  - a. use median rather than average FLS earnings to acknowledge that average hourly earnings are pulled up by high earners
  - b. make adjustments that reflect employment realities. The FLS, used to set AEWRs for most farm job titles, obtains data only from farm operators who hire workers directly, not from crop support employers who bring workers to farms. Direct-hire workers have higher wages than crop support workers. The AEWR for a state or region could combine the FLS wage and the OEWS wage and weight each for its share of crop employment in a state or region.
3. Switch to the ECI to adjust AEWRs because
  - a. DOL previously proposed to use the ECI to adjust AEWRs when the FLS was temporarily discontinued
  - b. The ECI reflects the broad US labor market, and is thus not influenced by unauthorized workers in the farm labor market

## Bibliography

Burdine, Kenny. "Balance of Trade Has Shifted as Beef Production has Decreased." Southern Ag Today 3(42.2). October 17, 2023.

<https://southernagtoday.org/2023/10/17/balance-of-trade-has-shifted-as-beef-production-has-decreased/>

Brown, Jenn. 2025. How Does Seasonal Migration Impact Agricultural Workers, Families, and Employers? *Stanford Impact Labs Open Questions*.

<https://impact.stanford.edu/article/how-does-seasonal-migration-impact-agricultural-workers-families-and-employers>

Canada ESDC. Hire a temporary worker through the Seasonal Agricultural Worker Program. <https://www.canada.ca/en/employment-social-development/services/foreign-workers/agricultural/seasonal-agricultural/requirements.html>

Calvin, Linda, Martin, Philip and Skyler Simnitt. 2022. Adjusting to Higher Labor Costs in Selected U.S. Fresh Fruit and Vegetable Industries. USDA ERS Economic Information Bulletin Number 235.

<https://ers.usda.gov/sites/default/files/laserfiche/publications/104218/EIB-235.pdf?v=57203>

Castillo, Marcelo. 2024. Legal status of hired crop farmworkers, fiscal 1991–2022. USDA ERS Chart of Note. <https://www.ers.usda.gov/data-products/chart-gallery/chart-detail?chartId=63466>

Castillo, Marcelo, Philip Martin, and Zach Rutledge. 2022. The H-2A Program in 2020. USDA ERS EIB 238. August. [www.ers.usda.gov/publications/pub-details/?pubid=104605](http://www.ers.usda.gov/publications/pub-details/?pubid=104605)

Castillo, Marcelo, Philip Martin, and Zach Rutledge. 2024. Whither the H-2A Visa Program: Expansion and Concentration. Choices. <https://www.choicesmagazine.org/choices-magazine/submitted-articles/whither-the-h-2a-visa-program-expansion-and-concentration>

CDM. 2020. Ripe for Reform: Abuses of Agricultural Workers in the H-2A Visa Program. Centro de los Derechos del Migrante, Inc., Baltimore, MD; Oaxaca, Mexico; Mexico City, Mexico. <https://cdmigrante.org/wp-content/uploads/2020/04/Ripe-for-Reform.pdf>

Clemens, Michael, Resstack, Reva, and Cassandra Zimmer. 2020. Harnessing Northern Triangle Migration for Mutual Benefit. Center for Global Development White House and The World Policy Brief. <https://www.cgdev.org/publication/harnessing-northern-triangle-migration-mutual-benefit>

Costa, Daniel, and Philip Martin. 2023. Record-low number of federal wage and hour investigations of farms in 2022. Economic Policy Institute, <https://www.epi.org/publication/record-low-farm-investigations/>

Escalante Cesar L., and Carmina E. Taylor. 2024. Protecting H-2A Workers' Rights and Welfare. 2024. Choices. <https://www.choicesmagazine.org/choices-magazine/submitted-articles/protecting-h-2a-workers-rights-and-welfare>

Eurofound. 2024. Minimum wages for low-paid workers in collective agreements. <https://www.eurofound.europa.eu/sites/default/files/2024-01/ef23061en.pdf>

Hamilton, S.F., Richards, T.J., Shafran, A.P., and Kathryn N. Vasilaky. 2022. Farm labor productivity and the impact of mechanization. *American Journal of Agricultural Economics* 104(4): 1435-1459. <https://doi.org/10.1111/ajae.12273>

Handwerker, E.W. 2024. Measuring Wages in the Agricultural Sector for the H-2A Visa Program. Congressional Research Service Report R47944. <https://www.congress.gov/crs-product/R47944>

Herrick, Christina. 2025. Growers say the current state of H-2A is untenable. The Packer. <https://www.thepacker.com/news/industry/growers-say-current-state-h-2a-untenable> and <https://www.thepacker.com/news/industry/much-work-remains-solve-ag-labor-issues>

Hill, Alexandra E. and James E. Sayre. 2024. As Mexican Farmworkers Flock North, Will U.S. Farms Head South? *ARE Update* 28(1): 9–12. University of California Giannini Foundation of Agricultural Economics. [https://s.giannini.ucop.edu/uploads/pub/2024/10/29/v28n1\\_3.pdf](https://s.giannini.ucop.edu/uploads/pub/2024/10/29/v28n1_3.pdf)

House. 2024. Agricultural Labor Working Group Report. March 7. [https://agriculture.house.gov/uploadedfiles/alwg\\_final\\_report\\_-\\_3.7.23.pdf](https://agriculture.house.gov/uploadedfiles/alwg_final_report_-_3.7.23.pdf)

Kandilov, Amy M.G., and Ivan T. Kandilov. 2020. The minimum wage and seasonal employment: Evidence from the US agricultural sector. *Journal of Regional Science*, 60(4): 612–627. <https://doi.org/10.1111/jors.12474>

Layard, R., Nickell, S. and Jackman, R. 1994. *The Unemployment Crisis*. Oxford University Press, Oxford.

Martin, Philip. 2024. *Bracero 2.0: Mexican Workers in North American Agriculture*. Oxford University Press. <https://global.oup.com/academic/product/bracero-20-9780197699973?cc=us&lang=en&>

Martin, Philip. 2007. Evaluation of the H-2A Alien Certification Process and the US Farm Labor Market. KRA. DOL. ETA. [https://wdr.doleta.gov/research/FullText\\_Documents/ETAOP\\_2013\\_04.pdf](https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2013_04.pdf)

MAC. 2024. Review of the Seasonal Worker Visa. <https://www.gov.uk/government/publications/seasonal-worker-visa-review/review-of-the-seasonal-worker-visa-accessible>

NASS, 2020. Farm Labor Methodology and Quality Measures 05/28/2020.  
[https://www.nass.usda.gov/Publications/Methodology\\_and\\_Data\\_Quality/Farm\\_Labor/05\\_2020/farm\\_labor\\_qm.pdf](https://www.nass.usda.gov/Publications/Methodology_and_Data_Quality/Farm_Labor/05_2020/farm_labor_qm.pdf)

NASS, 2025. Farm Labor Methodology and Quality Measures 05/21/2025.  
[https://www.nass.usda.gov/Publications/Methodology\\_and\\_Data\\_Quality/Farm\\_Labor/06\\_2025/fmla0525.pdf](https://www.nass.usda.gov/Publications/Methodology_and_Data_Quality/Farm_Labor/06_2025/fmla0525.pdf)

Newman, E. 2011. No Way to Treat a Guest: Why the H-2A Agricultural Visa Program Fails U.S. and Foreign Workers. Washington, DC: Farmworker Justice.

NZ SOPI. 2024. Situation and Outlook for Primary Industries.  
<https://www.mpi.govt.nz/dmsdocument/66648-Situation-and-Outlook-for-Primary-Industries-SOPI-December-2024>

Rural Migration News. 2024. H-2A Past and Present.  
<https://migration.ucdavis.edu/rmn/blog/post/?id=2928>

Rural Migration News. 2020. The Farm Workforce Modernization Act.  
<https://migration.ucdavis.edu/rmn/blog/post/?id=2576>

Rutledge, Zach Marcelo Castillo, Timothy Richards, and Philip Martin. 2025. H-2A Adverse Effect Wage Rates and US Farm Wages. *American Journal of Agricultural Economics*, forthcoming. <https://www.zachrutledge.com/research.html>

Ryan, Michael. 2023. Labour and Skills Shortages in the Agro-Food Sector. OECD.  
[https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/01/labour-and-skills-shortages-in-the-agro-food-sector\\_c9915f4e/ed758aab-en.pdf](https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/01/labour-and-skills-shortages-in-the-agro-food-sector_c9915f4e/ed758aab-en.pdf)

Simnitt, Skyler Mark, and Gulcan Onel. 2023. Earnings Differentials between H-2A and Unauthorized Citrus Harvesters in Florida. *Agricultural and Resource Economics Review* 52(3): 547–562. <https://doi.org/10.1017/age.2023.14>

Smith, Dana J., Jennifer Ifft, and Ejin Kim. 2022. Minimum Wage Increases and Agricultural Employment of Locals and Guest Workers. *Journal of the Agricultural and Applied Economics Association* 1: 200–221. <https://doi.org/10.1002/jaa2.27>

USDA. H-2A Visa Program. <https://www.farmers.gov/working-with-us/h2a-visa-program>

US DOL (Department of Labor). Consultants Report. 1959. Mexican Farm Labor Program.  
[https://books.google.com/books/about/Mexican\\_Farm\\_Labor\\_Program\\_Consultants\\_R.html?id=WaU\\_AfEokpIC](https://books.google.com/books/about/Mexican_Farm_Labor_Program_Consultants_R.html?id=WaU_AfEokpIC)

US DOL (Department of Labor). 2023. Adverse Effect Wage Rate Methodology for the Temporary Employment of H-2A Nonimmigrants in Non-Range Occupations in the United States <https://www.govinfo.gov/content/pkg/FR-2023-02-28/pdf/2023-03756.pdf>

US Senate Judiciary Committee. 1981. Temporary Workers. October 22.  
[https://books.google.com/books/about/Temporary\\_workers.html?id=1o7CEgNuZJ4C](https://books.google.com/books/about/Temporary_workers.html?id=1o7CEgNuZJ4C)

Whittaker, William G. 2008. Farm Labor: The Adverse Effect Wage Rate (AEWR). Congressional Research Service Report RL32861. Retrieved February 22, 2021 from: <https://nationalaglawcenter.org/wp-content/uploads/assets/crs/RL32861.pdf>

Zahniser, S. 2025. U.S. fresh fruit and vegetable supplies continue to rely on imports. USDA ERS Charts of Note #110713. <https://www.ers.usda.gov/data-products/charts-of-note/chart-detail?chartId=110713#:~:text=From%202007%20to%202023%2C%20the,sweet%20potatoes%2C%20and%20mushrooms>)