



United States Department of Agriculture  
**National Agricultural Statistics Service**

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**Farm Labor Program**

*An Introduction*



# Farm Labor Scope and Purpose



*The NASS Agricultural (Farm) Labor Survey provides the basis for employment and wage estimates for all workers directly hired by United States farms and ranches (excluding Alaska), for each of four quarterly reference weeks. Selected annual average estimates are summarized from the associated quarterly estimates.*

*The employment and wage estimates published support USDA and Department of Labor programs, and are used by additional federal, state, and local government agencies, educational institutions, farm organizations, and private sector employers of farm labor. The Agricultural Labor Survey was conducted in cooperation with the Department of Labor from year 2012 through the temporary suspension of the program in September 2020.*



# Farm Labor Program: Uses



- The employment and wage estimates published in the *Farm Labor* report are used by federal, state, and local government agencies; educational institutions; farm organizations; and private sector employers of farm labor. Some examples:
  - **U.S. Department of Labor** – The annual weighted average hourly wage rate for field and livestock workers combined is currently used as the Adverse Effect Wage Rate in administration of the H-2A Program. The H-2A Program is the provision under the Immigration Reform and Control Act that allows admission of temporary non-immigrant alien farm workers to perform farm labor or services of a temporary or seasonal nature.
  - **USDA** – The wage rate data are used to compute a wage rate index, a component of the Parity Index used to compute parity prices of agricultural products. Parity prices are computed as a provision of the Agricultural Adjustment Act as amended.



# Farm Labor Program Overview



- Provides *regional* statistics on the number of *directly* hired (non-contract) workers, average *gross* hours worked, and average *gross* wage rate by selected type of *directly hired* worker for each of four quarterly reference weeks.
  - Directly hired workers include those workers directly hired and paid by the farming operation, including those hired through recruiting apps or H-2A workers hosted by the farming operation.
  - The *contract* labor data series was discontinued in year 2012, as well as *state-level* wage statistics
  - More recently, *base* wage rates (the gross wage rate excluding overtime and piece rate, primarily), *base* hours and regional SOC-based wage rates were calculated and published. The difference between the estimated gross and base wages proved negligible; publication of base items and regional SOC wages was discontinued.
- Statistics are published semi-annually via the Farm Labor publication and Quick Stats database, in May (for the January and April quarterly reference weeks) and in November (for the July and October quarterly reference weeks, and “annual” statistics)

# Farm Labor Regions

Farm Labor Regions



USDA/NASS

# Farm Labor Regions

Farm Labor Regions





# Farm Labor Regions



<b>Region</b>	<b>States</b>
Northeast I	Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont.
Northeast II	Delaware, Maryland, New Jersey, Pennsylvania.
Appalachian I	North Carolina, Virginia.
Appalachian II	Kentucky, Tennessee, West Virginia.
Southeast	Alabama, Georgia, South Carolina.
Lake	Michigan, Minnesota, Wisconsin.
Corumbelt I	Illinois, Indiana, Ohio.
Corumbelt II	Iowa, Missouri.
Delta	Arkansas, Louisiana, Mississippi.
Northern Plains	Kansas, Nebraska, North Dakota, South Dakota.
Southern Plains	Oklahoma, Texas.
Mountain I	Idaho, Montana, Wyoming.
Mountain II	Colorado, Nevada, Utah.
Mountain III	Arizona, New Mexico.
Pacific	Oregon, Washington.

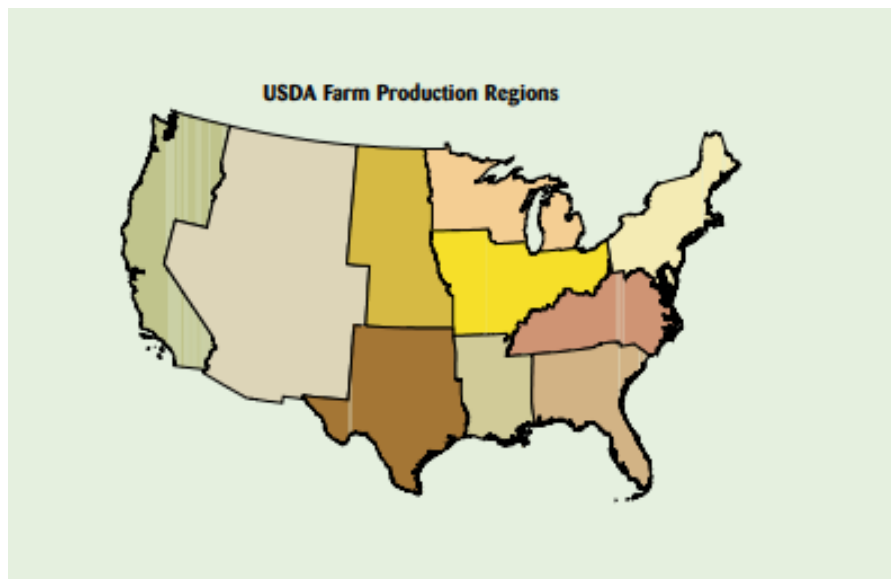


# Farm Labor Regions



The current labor regions appear to be based on *traditional* USDA farm production regions as determined by USDA-Economics Research Service, but with more regional breakouts and three state-regions (CA, FL, HI). Current labor regions first appeared in the May 1985 labor report, released by the USDA Crop Reporting Service.

[https://www.ers.usda.gov/webdocs/publications/42298/32489\\_aib-760\\_002.pdf?v=42487](https://www.ers.usda.gov/webdocs/publications/42298/32489_aib-760_002.pdf?v=42487)







# Farm Labor Program and DOL Regulation – *A Recent History*



## **Reinstatement by cooperative agreement:**

The USDA-NASS Farm Labor program was reinstated for year 2012 under a cooperative agreement with DOL-ETA, after the program was temporarily cancelled (due to USDA-NASS budget limitations), after the final year 2011 survey cycle. Effectively there was no disruption in either the Farm Labor data series or implementation of the DOL-ETA rule.

## **Reinstatement by court order:**

The USDA-NASS Farm Labor program was reinstated, and current DOL-ETA regulation methodology restored, on a year 2020 court order after late-year 2020 cancellation of the Farm Labor program and amendment of the DOL-ETA rule.

## **Current status:**

The Farm Labor program is currently conducted independently by USDA-NASS, and the (amended) DOL-ETA rule remains in place.



# Farm Labor Wage Rate in DOL H-2A Rule



## ***General task*** field and livestock worker wage rate:

- Adopted directly as the Adverse Effect Wage Rate (AEWRs) for each state in each respective region
- “General task” includes workers classified within the Standard Occupational Classification (SOC) system as:
  - Graders and Sorters (45-2041)
  - Agricultural Equipment Operators (45-2091)
  - Crop Farmworkers (45-2092)
  - Livestock Farmworkers (45-2093)
  - Packers and Packagers (53-7064)
  - Misc/Other Agricultural Workers (45-2099)



# Farm Labor Population



## *All Farms*

- The population for the Farm Labor program, is all U.S. farms excluding those in Alaska
  - Therefore, all Farm Labor program statistics describe the *entire* farm population for the given geographical level
- A farm is generally defined as a *production* operation with *production* sales or potential sales of \$1,000+
- Contractors and other non-production agricultural-related entities are excluded



# Farm Labor Population: All Farms



*Participation by all selected farms is important, regardless of size or labor force structure!*

## **Census OR survey:**

- All farms are asked to participate in the USDA-NASS Census of Agriculture every 5 years
- Certain selected farms are asked to participate in the USDA-NASS Agricultural (Farm) Labor Survey, conducted semi-annually
- The data gathered, are extremely important in accurate estimation of employment and wage information, facilitating both data collection and ultimate summarization of datasets

## **Response by all, is critical!**

- Better estimates of employment and wage rates (*i.e., lower coefficients of variation*)
- Low non-response bias



# Sampling Overview



*The Farm Labor program is a survey program, employing a sample to ultimately describe the population*

- By state-region
- Sample size per state-region is determined by coefficient of variation (cv; estimate quality) target
- Multiframe (list + area), stratified panel design; list stratification is by peak number of workers, or farm value of sales
- Only farms are sampled and surveyed



# Sampling Overview



- For the list frame component, the primary control datum is the peak number of workers value, the most recently reported annual peak number of hired workers for each record. In *general* terms, list stratification (and sampling) per state is largely based on this value.
  - The number of directly hired workers reported via the census, may be captured for use as this control datum, even though the census number is *not* a “peak.” The Agricultural Labor Survey, is another primary source of this control datum
- Beginning with the July and October 2021 survey, an optimal list frame sample size of over 16,000 operations is utilized. This list frame sample size is a bit larger than the *traditional* sample size of approximately 12,000 operations, adjusting for declining survey participation rates.



# Data Collection Topics



- **By reference week:** Data are collected for each of four quarterly reference weeks (in January, April, July, and October), the Sunday to Saturday period including the 12<sup>th</sup> day of the month. The use of this reference week ensures federally-sourced labor data series are comparable to a certain extent (within quarter), because other federal statistical utilize the same reference week.
- **By SOC system:** Data are collected according to the Bureau of Labor Statistics' Standard Occupational Classification (SOC) system, which classifies workers according to detailed occupational descriptions. All federal statistical agencies which collect labor data are required to utilize the SOC system.
  - NASS adopted this system in starting in year 2014, modifying it in order to accommodate publication by NASS aggregate worker categories (field, livestock, supervisory, and other). Prior to 2014, data were collected according to the NASS aggregate worker categories only.



# Data Collection Topics



## *Participation by selected farms, and method of response*

*All selected farms receive a survey by mail. Farms can respond by mail, online, or over the phone. Or sometimes by personal interview...*

September 26, 2024

### **Why am I getting this letter?**

Enclosed is your October 2024 Agricultural Labor Survey. Your participation is important. Please complete the questionnaire at your earliest convenience.

You may receive an email reminder to complete the survey. If we do not receive your completed questionnaire by October 15, 2024, we may contact you for an interview.

Producers who receive the survey may respond in either of the following ways:

- **Online at**  
[www.agcounts.usda.gov](http://www.agcounts.usda.gov)  
– A fast and secure way to complete the survey.
- **By mail** – Fill out the survey and return it in the prepaid envelope provided.

Producers may receive a reminder email to complete their survey. A NASS representative will call those who do not respond to collect this important information by phone.





# Data Collection Topics



*Only directly hired agricultural workers  
are included*

Only data for *directly* hired farmworkers and agricultural workers, are collected:

- For directly-hosted H-2A guest workers
- For all compensation types (including piece rate)
- For family members
- For all agriculturally-related occupations including office, delivery, wholesale sales and maintenance



# Data Collection Topics

## *The Report Form*

*(April 2024 Example)*

### ***Temporary vs Permanent Workers...***

1. Did this operation have agricultural workers on the payroll during the week of April 7th through April 13th?

600     Yes - Continue

No - Go to page 6

Don't Know - Go to page 6

2. How many agricultural workers did you have on the payroll during the week of April 7th through April 13th?.....

TOTAL NUMBER
660

3. In 2024, how many of the agricultural workers on the payroll that week will be paid by this operation for 150 days or more of work?.....

NUMBER OF WORKERS
700



# Data Collection Topics



## *The Report Form*

*(April 2024 Example)*

**Workers, hours, and wages data...**

Enter the Worker Code from Page 5	Number of Paid Workers that week	Total Hours Worked that week	Total Gross Wages Paid that week (Dollars)
611	612	613	614
611	612	613	614
611	612	613	614
611	612	613	614
611	612	613	614



# Data Collection Topics



## Worker Codes for Sections 1 and 2

**Worker Code Table:**  
*(from report form)*

*Modified* Standard  
Occupational Classification  
system

Code	Work Hired to Do
<b>CROP, NURSERY AND GREENHOUSE WORKERS</b>	
11	<b>Agricultural Equipment Operators - Crop, Nursery and Greenhouse:</b> Drive and control farm equipment to till soil and to plant, cultivate, and harvest crops.
12	<b>Farmworkers - Crop, Nursery and Greenhouse:</b> Manually plant, cultivate, and harvest vegetables, fruits, nuts, horticultural specialties, field crops, Christmas trees and short rotation woody crops. Use hand tools, such as shovels, trowels, hoes, tampers, pruning hooks, shears, and knives. Duties may include tilling soil and applying fertilizers; transplanting, weeding, thinning, or pruning crops; applying pesticides; or cleaning, grading, sorting, packing, and loading harvested products. May construct trellises, repair fences and farm buildings, or participate in irrigation activities.
13	<b>Graders And Sorters - Crop, Nursery and Greenhouse Products:</b> Grade, sort, or classify agricultural crops by size, weight, color or condition.
14	<b>Hand Packers And Packagers - Crop, Nursery and Greenhouse Products:</b> Pack or package by hand a wide variety of products and materials.
15	<b>All Other Field Workers: Specify:</b> _____ All agricultural workers working with crops, nursery or greenhouse products not included in codes 11-14.
<b>LIVESTOCK WORKERS</b>	
20	<b>Agricultural Equipment Operators - Farm, Ranch, and Aquacultural Animals:</b> Drive and control heavy farm equipment while attending to live farm, ranch, or aquacultural animals and in harvest of unprocessed animal products.
21	<b>Farmworkers - Farm, Ranch, and Aquacultural Animals:</b> Attend to live farm, ranch, or aquacultural animals including cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Duties may include feeding, watering, herding, milking, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May conduct simple exams; maintain records; assist in births; and administer medications, vaccinations, or insecticides. May clean and maintain animal housing areas.
22	<b>Graders And Sorters - Farm, Ranch, and Aquacultural Animal Products:</b> Grade, sort, or classify unprocessed food and other agricultural products by size, weight, color, or condition.
23	<b>Hand Packers And Packagers - Farm, Ranch and Aquacultural Animal Products:</b> Pack or package by hand a wide variety of products and materials.
24	<b>All Other Livestock Workers: Specify:</b> _____ All agricultural workers working with farm, ranch and aquacultural animals or products not included in codes 20 - 23.
<b>SUPERVISORS</b>	
31	<b>Farmers, Ranchers and Other Agricultural Managers:</b> Plan, direct, or coordinate the management or operation of farms, ranches, greenhouses, aquacultural operations, nurseries, bee farms, or other agricultural establishments.
32	<b>First-Line Supervisors of Farm Workers:</b> Directly supervise and coordinate the activities of agricultural, aquacultural, and related workers.
<b>OTHER WORKERS</b>	
41	<b>Agricultural Inspectors:</b> Inspect agricultural commodities, processing equipment and facilities, and aquacultural operations, to ensure compliance with regulations and laws governing health, quality, and safety.
42	<b>Animal Breeders:</b> Select and breed animals according to their genealogy, characteristics, and offspring.
43	<b>Pesticide Handlers and Sprayers:</b> Mix or apply pesticides, herbicides, fungicides, or insecticides through sprays, dusts, vapors, soil incorporation, or chemical application to all crops including nursery and greenhouse products and facilities, and livestock, and livestock facilities. Usually requires specific training and state or federal certification. Excludes pilots who dust or spray crops from aircraft.
44	<b>Any Other Worker Not Listed Above: Specify:</b> _____ Including, but not limited to, mechanics, shop workers, truck drivers, accountants, bookkeepers and office workers. Excluding contract and custom workers, retail workers, and "value-added" workers.



# Analysis Topics



**Analysis:** Wage rate outliers and highly influential wage data are reviewed for correctness, verified and/or updated where necessary

- Via electronic systems that identify worker, hour, and wage outliers
- Findings are input to a calibration process, in which outliers may be reweighted in order to mitigate effect
  - **Calibration**, a relatively new step in the Farm Labor program, is a reweighting technique used to ensure the summarized values of a set of benchmark labor variables more closely approximate a derived set of values for the population. Calibration is used to mitigate both the effects of highly influential outliers, and the effects of survey nonresponse and disproportionate response across farm type and economic sales class.



# Summarization Basics



- **Nonresponse accounting:** Direct expansions follow a two-stage record-level reweighting process (nonresponse adjustment and calibration):
  - Nonresponse adjustment: Nonresponse adjustment proceeds similarly to other NASS statistical programs. Initial sampling weights per unit are adjusted to account for actual response by stratum (recall that for list frame units, strata are primarily defined by peak number of workers control data).
- **By item:** In general terms, reported items are weighted as expected. Hours are weighted by associated workers, wages are weighted by associated total hours (workers x hours). Item ratios (hours/worker, wages/hour) are produced to support publication.
- **By location, time period:** State-level statistics are summarized to regional; regional are summarized to U.S.-level. Quarterly are weighted to annual.



# Summarization Basics



*The weighted average field and livestock combined wage rate*

**Includes field and livestock data only:**

- Corresponding to the field and livestock worker SOC classes
- Report form worker codes 11-15, 20-24

**Weighted by total hours, and expanded to account for all farms:**

- **SUM** ((*Total Wages/Total Hours*) x final sample weight))

**The calculated *annual* weighted average field and livestock worker combined wage rate per geographical region, is the item currently adopted as the AEWR per (regional) state**



# Modeling and Publication



- Starting in year 2020, published estimates of hired workers, average gross hours worked, average gross wage rates, and the associated sub-items are model-based.
  - Statistical models can be defined as “mathematical equations that relate quantities of interest (in this case, number of workers, hours, and wage rates) to a set of important input factors.”
- The models used by NASS relate the summarized direct expansions to previous year, same quarter official estimates.
- Modeling improves the precision of the resulting estimates (*i.e., lower coefficients of variation*)





# Quality Measures



United States								
Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	11068	16470	67.0%	44.0%	3.8	2.9	1.1	0.7
April	11068	16470	67.2%	43.6%	3.4	2.9	0.9	0.7
July	11379	16309	60.3%	43.9%	2.9	3.0	0.8	0.6
October	11379	16309	61.5%	43.7%	2.6	2.8	0.8	0.7

CornBelt I Region								
Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	858	1272	67.7%	43.8%	12.4	8.8	5.0	2.1
April	858	1272	68.9%	43.8%	10.2	8.3	3.5	1.8
July	886	1257	60.7%	39.4%	10.6	8.4	3.3	2.4
October	886	1257	60.8%	38.6%	10.2	9.0	2.2	2.0



# Quality Measures



## Appalachian I Region

Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	578	698	68.3%	47.3%	14.5	13.3	6.5	3.3
April	578	698	69.2%	47.4%	11.9	11.9	5.0	2.7
July	567	707	68.3%	44.6%	11.4	13.0	2.6	2.9
October	567	707	69.5%	45.1%	10.8	14.6	2.4	3.5

## Appalachain II Region

Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	647	923	78.4%	48.6%	15.5	10.0	4.5	2.8
April	647	923	79.8%	48.8%	15.3	9.3	4.5	2.4
July	638	925	67.4%	57.5%	16.3	11.1	3.5	2.0
October	638	925	67.7%	57.6%	16.4	12.1	3.9	2.3



# Quality Measures



Southeast Region								
Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	590	801	71.2%	41.9%	13.0	9.7	2.5	3.0
April	590	801	71.2%	41.9%	17.2	8.6	2.0	2.8
July	600	787	66.0%	43.8%	10.6	9.6	2.7	2.2
October	600	787	66.3%	44.0%	11.9	12.6	2.9	2.8

Florida Region								
Month	Sample Size *		Response Rate		All Hired Workers CV		All Hired Wage Rate CV	
	2013	2023	2013	2023	2013	2023	2013	2023
January	487	821	67.8%	40.4%	9.3	9.4	2.4	2.3
April	487	821	68.2%	40.3%	11.2	10.9	2.4	2.1
July	500	778	59.4%	37.4%	10.4	13.7	3.0	4.2
October	500	778	59.4%	37.4%	9.6	13.4	2.4	5.2



# Farm Labor Program

## *Feedback and Input*



*Important for Accountability, Improvement, and Informational Purposes!*

### **OMB Clearance Process:**

- Every 36 months
- Combined 90-day comment period:
  - Notice of intent to create, renew, or reinstate an information collection: 60-day comment period
  - Submission for OMB review: 30-day comment period
- See Federal Register

### **OMB Substantive Change Approval:**

- 30-day comment period may be available
- See Federal Register



# Farm Labor Program

## *Feedback and Input*



*Important for Accountability, Improvement, and Informational Purposes!*

### **Individual Agency Contact**

- Can be informal, call-in
- Unscheduled
- Recorded informally

### **Resources:**

- Participation guide to the OMB approval process:
  - <https://pra.digital.gov/clearance-process/>
- Federal Register: <https://www.federalregister.gov/>
- Federal Register reader aids:
  - <https://www.federalregister.gov/reader-aids/videos-tutorials>



# United States Department of Agriculture National Agricultural Statistics Service

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## Farm Labor Program

### Resources:

- **Farm Labor program guide page:**
  - [USDA - National Agricultural Statistics Service - Surveys - Farm Labor](#)
- **Farm Labor report**
  - [Publication | Farm Labor | ID: x920fw89s | USDA Economics, Statistics and Market Information System \(cornell.edu\)](#)
- **Quality Measures and Methodology**
  - [USDA - National Agricultural Statistics Service - Methodology and Quality Measures - Farm Labor](#)