

A281.9

Ag8A

02



United States  
Department of  
Agriculture

Economic  
Research  
Service

Agricultural  
Economic  
Report No. 658

# A Profile of Hired Farmworkers, 1990 Annual Averages

Victor J. Oliveira



---

## **It's Easy To Order Another Copy!**

**Just dial 1-800-999-6779. Toll free in the United States and Canada. Other areas, please call 1-301-725-7937.**

*Ask for A Profile of Hired Farmworkers, 1990 Annual Averages (AER-658).*

The cost is \$5.00 per copy. Please add 25 percent extra for postage to non-U.S. addresses (including Canada). Charge your purchase to your VISA or MasterCard, or we can bill you. Or send a check or purchase order (made payable to ERS-NASS) to:

ERS-NASS  
P.O. Box 1608  
Rockville, MD 20849-1608.

We'll fill your order by first-class mail.

---

## **Abstract**

An average 886,000 persons age 15 years and older were employed per week as hired farmworkers in 1990. Hired farmworkers tend to be younger and less educated than other wage and salary workers and are more likely to be male, Hispanic, and never married. The median weekly earnings of hired farmworkers was \$200, significantly less than the median \$360 of all wage and salary workers. The Pacific region (California, Oregon, Washington, Hawaii, and Alaska) employed 24 percent of all U.S. hired farmworkers. This report is the first in a new series examining the demographic and employment characteristics of hired farmworkers, with data from the Current Population Survey (CPS) earnings microdata file.

**Keywords:** Hired farmworkers, annual averages, seasonality, median weekly earnings

## **Contents**

	<i>Page</i>
Introduction .....	1
Hired Farmworker Characteristics .....	2
Demographics .....	2
Education by Race/Ethnicity .....	3
Geographic Distribution of Hired Farmworkers .....	4
Employment and Earnings .....	5
Seasonality of Hired Farm Employment .....	5
Hours Worked and Weekly Earnings .....	5
Summary .....	7
References .....	8
Appendix: Comparison of the 1990 CPS Earnings Microdata File with the 1987 Agricultural Work Force Survey .....	9

## Definitions

**Employed persons:** Persons age 15 years and older who, during the survey week, did any work as paid employees, or who worked 15 hours or more as unpaid workers in a family enterprise, or who were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, labor-management disputes, or personal reasons, whether they were paid for the time off or were seeking other jobs.

**Hired farmworkers:** Employed persons who, during the survey week, did farmwork for cash wages or salary, or who did not work but who had farm jobs from which they were temporarily absent. Hired farmworkers include persons who manage farms for employers on a paid basis, supervisors of farmworkers, and farm and nursery workers.

**Annual average number of hired farmworkers:** The average number of hired farmworkers employed per week during 1990.

**Racial/ethnic group:** Refers to division of the population into three mutually exclusive groups--white, Hispanic, and black and other. "Hispanic" includes all persons whose origin or descent was Mexican, Mexicano, Puerto Rican, Cuban, Central or South American, or other Hispanic persons. "White" refers to white persons other than those of Hispanic origin. "Black and other" includes blacks and other groups such as Indians, Chinese, Japanese, and others not of Hispanic origin.

**Full-time workers:** Persons who usually work 35 hours or more per week.

**Median weekly earnings:** The value that divides the earnings distribution into two equal parts, one part having earnings above the median and the other part having earnings below the median. "Earnings" refers to the weekly earnings the farmworker usually earns at a farmwork job, before deductions, and includes any overtime pay or commissions.

**Industry:** Hired farmworkers were classified according to the industry of the establishment on which they worked.

*Crop production*—establishments primarily engaged in the production of crops, plants, vines, and trees (excluding forestry operations).

*Livestock production*—establishments primarily engaged in the keeping, grazing, or feeding of livestock.

*Agricultural services*—establishments primarily engaged in performing farm labor and management services, soil preparation services, and animal and crop services for others on a contract or fee basis.

# A Profile of Hired Farmworkers

## 1990 Annual Averages

Victor J. Oliveira

### Introduction

Hired farmworkers are one of the most economically disadvantaged occupational groups in the United States, experiencing low wages, seasonal employment, weak attachment to the labor force, and limited options (4).<sup>1</sup> The problems faced by hired farmworkers have received increasing attention from Congress in recent years. In both 1990 and 1991, the U.S. House of Representatives Select Committee on Aging held hearings on a broad range of concerns relating to the living and working conditions of hired farmworkers. Testimony presented at the hearings cited the need for accurate, comprehensive data on farmworkers to assess their socioeconomic condition and determine how best to improve their situation (1,7). Despite the increased attention on farmworker issues, data on hired farmworkers are limited.

In the past, the major source of socioeconomic data on hired farmworkers was the Agricultural Work Force Survey, conducted by USDA from 1945 to 1987.<sup>2</sup> These surveys, reporting information on the total number of persons who did hired farmwork during the year, were based on a special supplement to the December Current Population Survey (CPS). Due to budgetary reasons, however, the survey was discontinued after 1987. Since then, farm labor researchers have generally used only two published sources of national level data with information on the demographic and employment characteristics of hired farmworkers, each with limitations restricting its usefulness.

- The Decennial Census of Population: The Census collects detailed employment information based on the respondents' chief jobs during the reference week. Its major limitations are: (1) it is conducted only once every 10 years, and (2) the reference week is usually the last week of March, generally a slack farmwork period. As a result, the Census fails to collect informa-

tion on many of the Nation's farmworkers not working on farms when the data were collected (8).

- The National Agricultural Workers Survey (NAWS): NAWS, commissioned by the U.S. Department of Labor in response to the Immigration Reform and Control Act of 1986, was first conducted in 1988. Funding for the survey after 1992 is uncertain. The survey provides detailed information on the characteristics and work patterns of workers performing Seasonal Agricultural Services (SAS) (6). Although SAS work includes most work on crop farms, all livestock work is excluded. In addition, the published data do not provide estimates on the number of farmworkers or their geographic distribution.

This report introduces a data source not previously used to examine hired farmworkers, the Current Population Survey (CPS) earnings microdata file (see box). This file was used to examine the number of hired farmworkers, their demographic and employment characteristics, and their geographic distribution. The information was based on 12 months of data, with each month representing the number of persons who did hired farmwork during a 1-week period. Annual averages were computed by summing the weekly estimates for each month and dividing by 12. Since the annual average represents the average number of people employed at hired farmwork per week, the estimated number of workers in this report is not comparable with the total number of persons who were employed at hired farmwork at any time during the year as reported in previous Agricultural Work Force surveys.<sup>3</sup> (See the appendix for a comparison of the CPS earnings microdata file with the Agricultural Work Force Survey.)

The CPS is a probability sample survey and estimates may differ by chance from figures that would have been

---

<sup>1</sup>Italicized numbers in parentheses refer to sources listed in the References section.

<sup>2</sup>The survey was named the Hired Farm Work Force Survey before 1985. See (4) for information on the 1987 Agricultural Work Force Survey.

---

<sup>3</sup>For example, if each month a different worker works on a farm, the total number of workers who worked on that farm during the year is 12, while the average number of workers employed during the year is 1.

## About the Data

**Current Population Survey:** The Current Population Survey (CPS), conducted by the Bureau of the Census, collects information on the demographic, social, and economic characteristics of the employed, unemployed, and persons not in the labor force. It is the primary source of monthly estimates of total employment and unemployment in the United States. The CPS is based on a probability sample of households, designed to represent the U.S. civilian noninstitutional population. (Participation in the survey is voluntary and there are no penalties for not answering any questions.)

Each month, about 57,000 households are sampled with coverage in all 50 States and the District of Columbia. Once a household is selected for interview, it is interviewed for 4 consecutive months, dropped from the survey for 8 months, then interviewed for a final 4 months. Part of the sample is changed monthly. This survey design provides for about three-quarters of the selected households to be interviewed the following month, and about one-half to be interviewed the next year. In this way, the Census Bureau can obtain month-to-month and year-to-year comparisons with minimal inconvenience to any one household. During each monthly visit, trained enumerators complete a questionnaire for each household member age 15 and older. Questions are asked of the household member's labor force activity during the survey week, that is, the week containing the 12th day of the month. Information obtained from this sample of households is expanded to provide national-level estimates.

**CPS earnings microdata file:** Each month, workers in about one-quarter of the CPS households (those in either their 4th or 8th month in the sample) are asked additional questions on weekly hours worked and earnings. The 1990 CPS earnings microdata file used in this report consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during 1990. The data file contained information on almost 491,000 persons including over 1,600 who were employed as hired farmworkers.

**Limitations:** The CPS classifies employed persons according to the job at which they worked the greatest number of hours during the survey week. As a result, hired farmworkers who spent more time during the survey week at their non-farm job rather than their farm job would not be included in the count of hired farmworkers.

The CPS may also undercount Hispanics in the hired farm workforce. Because the CPS is based on a survey of households, it may undercount farmworkers living in unconventional living quarters. Other studies suggest that Hispanic farmworkers may be more likely to live in non-standard housing units (2,3). In addition, undocumented foreign farmworkers may avoid survey enumerators due to their illegal status.

obtained if the entire population had been surveyed. Standard errors, a measure of sampling error, were computed based on unpublished parameters provided by the Bureau of the Census. Comparisons in the text are based on statistical tests with a 95-percent confidence level or higher.

### Hired Farmworker Characteristics

An average of over 104 million persons age 15 years and older were employed per week at wage and salary jobs in the United States in 1990. Of these, 886,000 persons did hired farmwork; that is, farmwork for cash wages or salary.<sup>4</sup>

#### Demographics

Hired farmworkers tended to be significantly younger, less educated, and more likely to be male, Hispanic, and never

married relative to all employed persons (table 1). Specifically:

- 83 percent of hired farmworkers were male, versus only 53 percent of all wage and salary workers.
- Whites comprised the majority of hired farmworkers (61 percent), but their proportion was significantly less than the 78 percent for all wage and salary workers. On the other hand, Hispanics accounted for 29 percent of the hired farmworkers compared with only 8 percent of all wage and salary workers.
- 32 percent of the hired farmworkers were under 25 years of age compared with only 18 percent of all wage and salary workers. The median age of hired farmworkers was 31 versus 35 years for all wage and salary workers.
- Hired farmworkers were less likely to be married than were all wage and salary workers. Fifty-three percent

<sup>4</sup>Hired farmworkers specifically include persons who manage farms for employers on a paid basis, supervisors of farmworkers, and farm and nursery workers.

**Table 1—Demographic characteristics of hired farmworkers and all wage and salary workers, 1990**

(Annual averages)

Characteristic	Hired farmworkers		All employed persons	
	Thousands	Percent	Thousands	Percent
Total	886	100.0	104,351	100.0
Sex:				
Male	735	82.9	55,043	52.7
Female	151	17.1	49,308	47.3
Racial/ethnic group:				
White	540	61.0	81,695	78.3
Hispanic	260	29.4	8,197	7.9
Black and other	85	9.6	14,459	13.9
Age (years):				
Less than 20	144	16.2	6,571	6.3
20-24	135	15.3	12,212	11.7
25-34	251	28.4	30,972	29.7
35-44	170	19.2	26,411	25.3
45-54	90	10.2	16,558	15.9
55 and older	95	10.7	11,628	11.1
Median age (years)		31		35
Marital status:				
Married	472	53.3	60,706	58.2
Widowed, divorced, or separated	79	8.9	14,925	14.3
Never married	335	37.8	28,720	27.5
Schooling completed (years):				
0-4	98	11.1	1,031	1.0
5-8	191	21.6	4,141	4.0
9-11	202	22.8	11,222	10.8
12	278	31.4	41,166	39.4
13 or more	116	13.1	46,792	44.8
Median years completed		11		12

of all hired farmworkers were married, versus 58 percent of all wage and salary workers. However, this result was primarily due to the younger ages of hired farmworkers. After controlling for age, there was no significant difference in marital status between hired farmworkers and all wage and salary workers.

### Education by Race/Ethnicity

Most hired farmworkers (56 percent) had not graduated from high school, versus only 16 percent of all wage and salary workers. In fact, a third of all hired farmworkers had completed less than 9 years of school. Conversely,

only 13 percent of hired farmworkers had some college experience, versus 45 percent of all wage and salary workers.<sup>5</sup>

For hired farmworkers, years of schooling completed varied significantly by racial/ethnic group: Hispanics had lower educational levels than whites and blacks and others. Only 13 percent of all Hispanics, for example, had

<sup>5</sup>The education levels of hired farmworkers age 25 years and older (an age when most people have completed their schooling) were similar to those of all hired farmworkers. For example, 55 percent of hired farmworkers age 25 and older had not completed high school versus 56 percent of all hired farmworkers.

completed high school versus 60 percent of all white hired farmworkers and 40 percent of blacks and others (table 2). Almost three-quarters (72 percent) of the Hispanics had completed less than 9 years of school and 30 percent were functionally illiterate, that is, had completed less than 5 years of schooling. Hispanics had a median educational level of only 6 years, while blacks and others had completed 10 years, and whites 12 years.

### Geographic Distribution of Hired Farmworkers

The average number of hired farmworkers varied significantly by geographic area. The 10 farm production regions (fig. 1) differ in soil type, slope of land, climate, types of crops and commodities produced, and the labor required to produce these commodities. The Pacific region, with 215,000 workers (24 percent of the Nation's average annual farmworker employment) had more than double the number of farmworkers of the next largest region, the Southeast (12 percent). The Corn Belt (11 percent) and Southern Plains (10 percent) were the only other regions with 10 percent or more of the Nation's annual average hired farmworker population. The fewest hired farmworkers were employed in the Delta (5 percent) and Northern Plains (5 percent) regions.

The racial/ethnic distribution of hired farmworkers also varied widely across farm production regions. Whites made

up a majority of workers in 6 of the 10 regions (table 3). Hispanics accounted for almost two-thirds (65 percent) of the workers in the Pacific region, and also accounted for a large percentage of workers in the Mountain (48 percent) and Southern Plains (44 percent) regions. The largest concentration of blacks and others was in the Southeast (32 percent) and Delta (31 percent) regions.

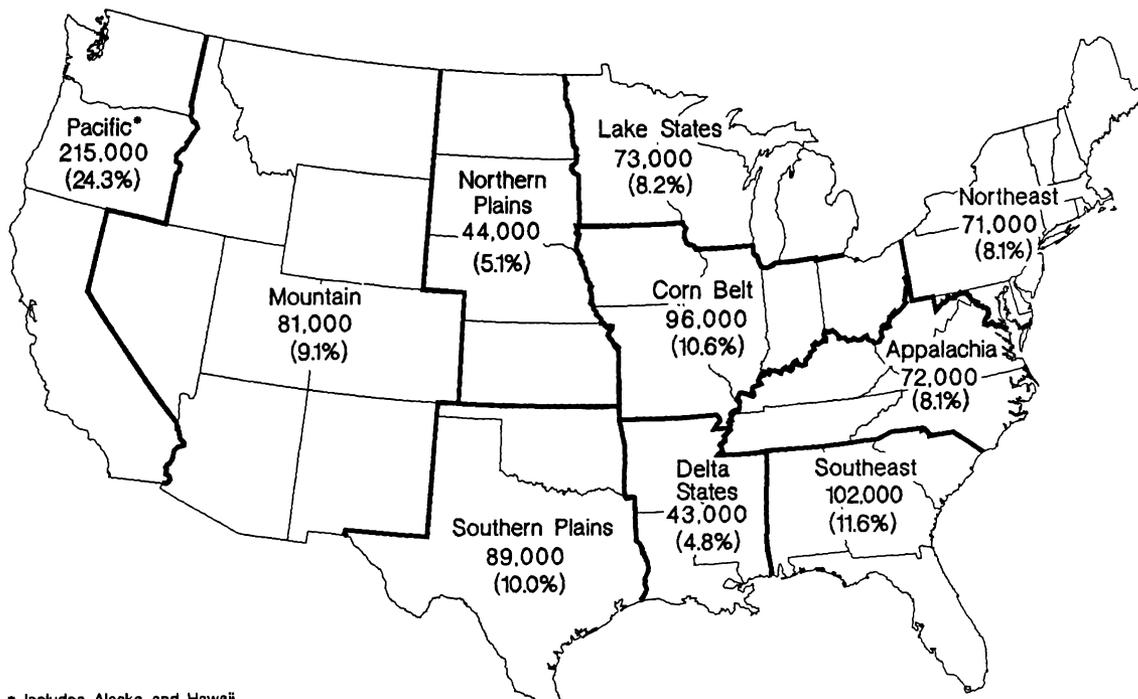
**Table 2—Years of schooling completed by hired farmworkers by racial/ethnic group, 1990**

(Annual averages)

Years of schooling completed	White	Hispanic	Black and other
	<i>Percent</i>		
Total	100.0	100.0	100.0
0-4	2.8	30.0	5.7
5-8	11.0	42.1	26.1
9-11	26.0	14.5	28.5
12	41.1	10.6	33.8
13 or more	19.1	2.8	6.0
Median years completed	12	6	10

Figure 1

### Average annual employment of hired farmworkers by farm production region, 1990



\* Includes Alaska and Hawaii.

**Table 3—Racial/ethnic distribution of hired farmworkers by farm production region, 1990**

Farm production region	(Annual averages)			
	Total	White	Hispanic	Black and other
		<i>Percent</i>		
Northeast	100.0	88.8	7.1	4.1
Appalachia	100.0	84.2	2.5	13.4
Southeast	100.0	45.8	22.6	31.6
Lake States	100.0	97.1	2.4	.5
Corn Belt	100.0	88.8	9.8	1.3
Delta States	100.0	64.0	5.3	30.8
Northern Plains	100.0	98.4	.4	1.2
Southern Plains	100.0	44.1	43.6	12.4
Mountain	100.0	49.3	48.1	2.6
Pacific	100.0	29.5	64.8	5.7

*Black farmers were concentrated in the Southeast and Delta regions, while Hispanics were mostly in the West.*

### Employment and Earnings

Hired farmworkers work on various types of establishments. Data from the 1990 CPS earnings microdata file indicate that 47 percent of all hired farmworkers worked on crop farms, 44 percent worked on livestock farms, and 9 percent worked for agricultural service firms, including farm labor contractors and crew leaders (table 4).<sup>6</sup>

The racial/ethnic composition of the hired farm workforce varied significantly by industry type. Hispanics made up 50 percent of the agricultural services workers, 39 percent of the crop farmworkers, but only 15 percent of the livestock workers (table 4).<sup>7</sup> Conversely, whites comprised 77 percent of the livestock workers, and less than half of the crop and agricultural service workers.

<sup>6</sup>Agricultural service firms are establishments primarily engaged in performing farm labor and management services, soil preparation services, and animal and crop services for others on a contract or fee basis. Other published data suggest that the CPS earnings microdata file may undercount the number of crop and agricultural service workers. The 1987 Census of Agriculture, the latest available, indicated that 53 percent of all farm labor expenditures were on crop farms, 32 percent on livestock farms, and 15 percent for contract labor (5).

<sup>7</sup>Since the data probably underestimate the number of crop and agricultural service workers, which include a large percentage of Hispanics, the number of Hispanics employed in U.S. agriculture is likely to be larger than the number reported here.

**Table 4—Distribution of hired farmworkers by industry and racial/ethnic group, 1990**

Industry	(Annual averages)			
	Total	White	Hispanic	Black and other
		<i>Thousands</i>		<i>Percent</i>
Total	886	61.0	29.4	9.6
Crop production	419	49.2	39.4	11.4
Livestock production	390	76.9	14.5	8.6
Agricultural services	77	44.4	50.2	5.4

### Seasonality of Hired Farm Employment

Because of the seasonal nature of agriculture, hired farmwork employment is characterized by extreme monthly variation. The average number of hired farmworkers employed during 1990 ranged from a low of 593,000 in December to a high of 1,125,000 in July (fig. 2). Most of this variation in monthly employment was due to fluctuations in the number of workers on crop farms. Most crop farms have periods of peak labor use, such as during the harvesting of fruits and vegetables. In most areas of the country, labor use on these farms peaks during the summer, while fewer workers are employed during the winter. However, employment in agricultural services peaked in January. Almost two-thirds of the agricultural service workers employed in January resided in the Southeast, where winter is the peak labor use season, especially in Florida. Employment on livestock farms showed much less monthly variation as its labor demands are more constant.

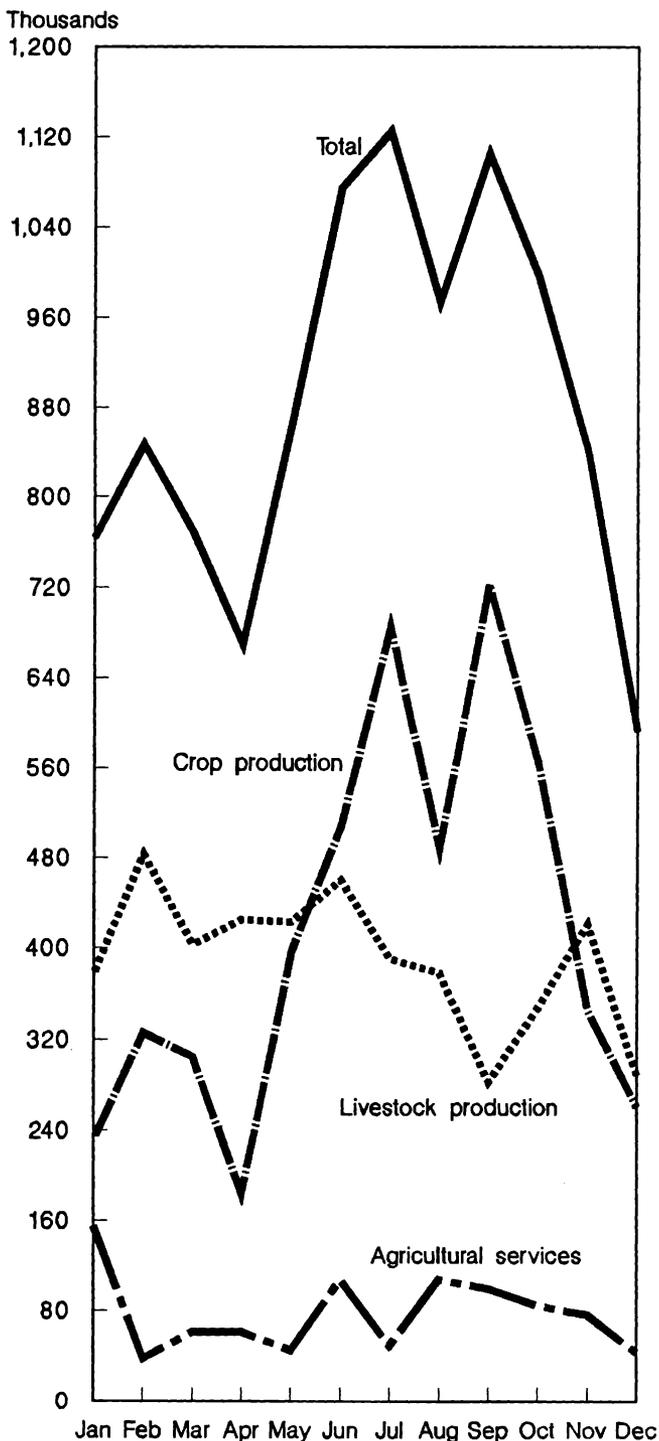
### Hours Worked and Weekly Earnings

Almost 22 percent of all hired farmworkers usually worked part-time; that is, less than 35 hours during the weeks that they were employed, significantly more than the 18 percent of all wage and salary workers who worked part-time (table 5). However, hired farmworkers were also significantly more likely to work long hours; 21 percent usually worked 55 hours or more compared with only 5 percent of all wage and salary workers.

Hired farmworkers earned significantly less than other wage and salary workers. The median weekly earnings of hired farmworkers, \$200 in 1990, was only 56 percent of the median \$360 received by all employed wage and salary workers.<sup>8</sup> Over three-quarters (76 percent) of all hired

<sup>8</sup>Data on earnings refer to the usual earnings received from the worker's farmwork job, before deductions, and includes any overtime pay or commissions.

Figure 2  
**Hired farmworkers employed by month and by establishment type, 1990**



farmworkers usually earned less than \$300 per week, compared with only 39 percent of all wage and salary workers (table 5). Twenty-three percent of all wage and salary workers earned \$600 or more compared with only 3 percent of all hired farmworkers.

Hired farmworker earnings are among the lowest of all occupational groups (fig. 3). In fact, 10 of the 12 occupa-

**Table 5—Hours worked per week and weekly earnings of hired farmworkers and all wage and salary workers, 1990**

Characteristic	(Annual averages)	
	Hired farmworkers	All wage and salary workers
	<i>Percent</i>	
Total	100.0	100.0
Hours worked per week:		
1-19	8.2	6.3
20-34	13.6	12.1
35-44	40.4	63.4
45-54	16.8	13.0
55 or more	21.0	5.1
Weekly earnings:		
Less than \$100	14.2	7.3
\$100-\$199	28.4	13.3
\$200-\$299	33.3	18.3
\$300-\$399	13.4	15.5
\$400-\$499	5.3	12.9
\$500-\$599	2.4	9.5
\$600 or more	3.1	23.2

tional groups shown in figure 3 had significantly higher median weekly earnings than hired farmworkers. (Similar results were found when the analysis was restricted to only full-time workers.)

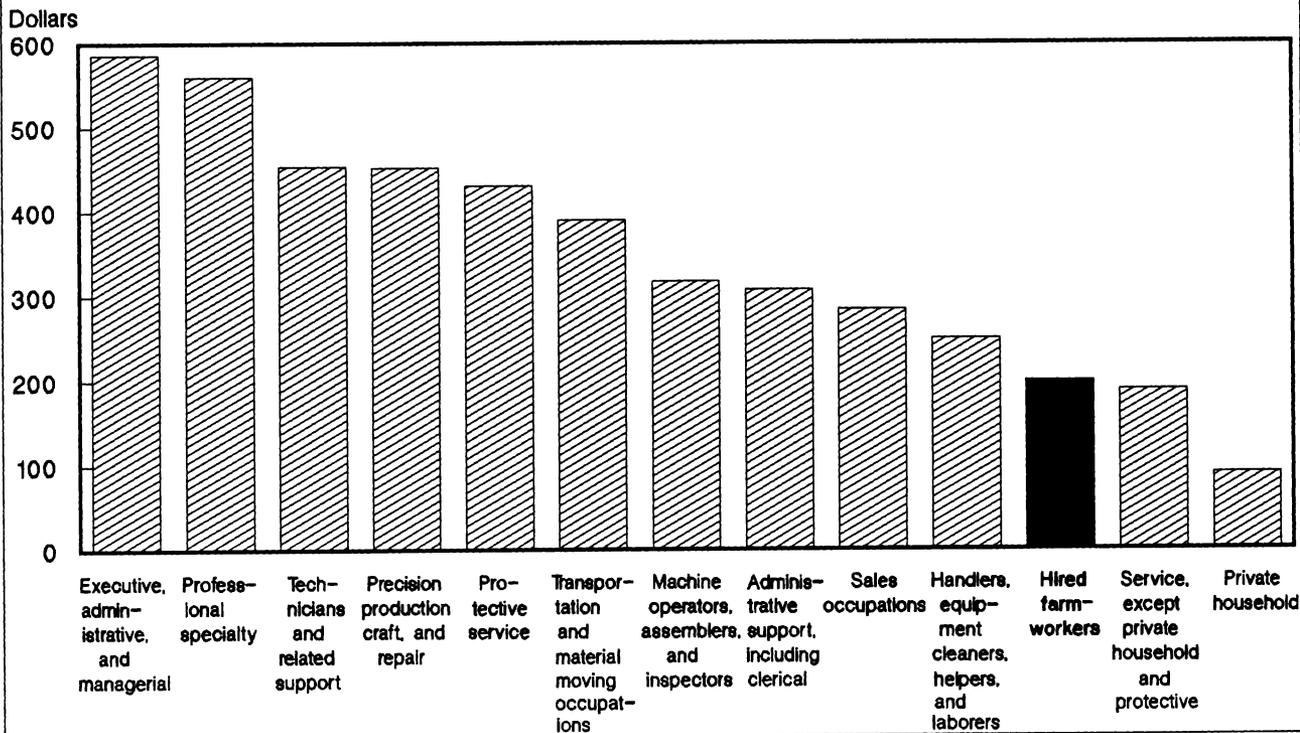
The demographic characteristics of hired farmworkers appear to influence their weekly earnings.<sup>9</sup> For example, the median weekly earnings of males (\$216) was significantly greater than that of females (\$175) (table 6).<sup>10</sup> Both whites (\$201) and Hispanics (\$213) had median earnings greater than blacks (\$175). Workers age 25-34 years (\$240) and 35-44 years (\$250) had higher median earnings than the other age groups. Higher education was also associated with higher weekly earnings. Workers who had completed high school (\$240) and those with some college experience (\$260) had greater weekly earnings than workers with lower education levels.

<sup>9</sup>Weekly earnings may vary among different groups because of differences in hours worked and/or hourly wage. In general, groups with higher weekly earnings (for example, males) worked more hours than groups with lower weekly earnings (for example, females). However, the data did not allow for the statistical testing of the relative effects of hours worked and hourly wage on the differences in weekly earnings among the various groups.

<sup>10</sup>Because of the skewness associated with the distribution of hired farmworkers' weekly earnings, median earnings, and not mean earnings, were used to represent the typical or average earnings of hired farmworkers. Unlike median earnings, mean earnings can be greatly affected by a relatively few extreme measurements.

Figure 3

**Median weekly earnings of wage and salary workers by occupation, 1990**



The type of farm the worker was employed on had little influence on the worker's weekly wage, as the median weekly earnings of hired farmworkers did not differ significantly by farm industry. However, the region of the country where farmworkers worked did have a large effect. Median weekly earnings ranged from a high of \$240 in the Pacific region to a low of \$160 in the Lake States.

**Summary**

Hired farmworkers in 1990 were significantly younger, less educated, more likely to be Hispanic, and had lower

weekly earnings than all wage and salary workers. However, there was considerable diversity of demographic characteristics, regional distribution, and employment characteristics within the hired farm workforce. This report of 1990 data is the first of a series using the CPS earnings microdata file to examine the annual average number of hired farmworkers and their characteristics. Data provided in this report will be used as a benchmark for future reports. That will enable us to monitor the characteristics and economic well-being of hired farmworkers over time, providing better information as a basis for programs designed to improve the welfare of hired farmworkers.

**Table 6—Median weekly earnings of hired farmworkers by demographic and employment characteristics, 1990**

(Annual averages)

Characteristic	Hired farmworkers	Median weekly earnings	Characteristic	Hired farmworkers	Median weekly earnings
	Thousands	Dollars		Thousands	Dollars
All hired farmworkers	886	200	Schooling completed (years):		
			0-4	98	204
Sex:			5-8	191	200
Male	735	216	9-11	202	168
Female	151	175	12	278	240
			13 or more	116	260
Racial/ethnic group:			Industry:		
White	540	201	Crop production	419	210
Hispanic	260	213	Livestock production	390	200
Black and other	85	175	Agricultural services	77	200
Age (years):			Farm production region:		
Less than 20	144	100	Northeast	71	228
20-24	135	206	Lake States	73	160
25-34	251	240	Corn Belt	96	180
35-44	170	250	Northern Plains	44	175
45-54	90	200	Appalachia	72	193
55 and older	95	200			
			Southeast	102	200
			Delta States	43	214
			Southern Plains	89	200
			Mountain	81	200
			Pacific	215	240

## References

1. Association of Farmworker Opportunity Programs, "Farmworkers and the Need for Increased Labor Standards Protection, Government Oversight, and Statistical Information," Testimony before the Select Committee on Aging, House of Representatives, July 1991.
2. Gabbard, S.M., R. Mines, and J.M. Perloff. *A Comparison of the CPS and NAWS Surveys of Agricultural Workers*. Working Paper. Institute for Industrial Relations, University of California, Berkeley and the Giannini Foundation, June 1991.
3. La Cooperativa Campesina de California, *Out in the Cold: Causes and Consequences of Missing Farmworkers in the 1990 Census*. July 1991, Sacramento, CA.
4. Oliveira, V.J., and E.J. Cox. *The Agricultural Work Force of 1987: A Statistical Profile*. AER-609. U.S. Dept. Agr., Econ. Res. Serv., May 1989.
5. Oliveira, V.J. *Hired and Contract Labor in U.S. Agriculture, 1987: A Regional Assessment of Structure*. AER-648. U.S. Dept. Agr., Econ. Res. Serv., May 1991.
6. United States Department of Labor, Office of the Assistant Secretary for Policy, *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*. Research Report No. 1. July 1991.
7. United States General Accounting Office, "Farmworkers Face Gaps in Protection and Barriers to Benefits," Testimony before the Select Committee on Aging, House of Representatives. July 1991.
8. Whitener, L.A. *Counting Hired Farmworkers: Some Points to Consider*. AER-524. U.S. Dept. Agr., Econ. Res. Serv., December 1984.

## Appendix: Comparison of the 1990 CPS Earnings Microdata File with the 1987 Agricultural Work Force Survey

This report marks the first year in which the CPS earnings microdata file was used to examine hired farmworkers. From 1945 to 1987, ERS examined the socioeconomic characteristics of hired farmworkers based on data from the Agricultural Work Force Survey (AWFS).<sup>11</sup> Data from the 1990 CPS earnings microdata file were compared with data from the 1987 Agricultural Work Force Survey (AWFS) to determine the similarities and differences in the two surveys.

Results of the two studies were generally similar. Hired farmworkers were mostly white, male, young, and had low education levels (app. table 1). However, there were some differences, due in large part to differences in survey design. The CPS earnings microdata file contains information from the 12 monthly surveys conducted during the year. The reference period covered in the monthly surveys is a calendar week containing the 12th of the month. The actual survey is conducted during the following week. On the other hand, the AWFS was conducted only once in December, and the reference period was the past 12 months.

The proportion of Hispanics in the CPS microdata earnings file (29 percent) was twice that in the AWFS (14 percent). Because the AWFS was conducted in December (which in most areas of the country is a slack period for farmwork), some foreign workers may have been out of the country at the time of the survey. Anecdotal evidence as well as results from NAWS (6) suggest that while both surveys probably underestimate the percentage of Hispanics in the hired farm workforce, the data from the CPS earnings microdata file are closer to the actual percentage.

The distribution of hired farmworkers by age differed between the two surveys. The CPS earnings microdata file had a smaller proportion of workers age 24 or younger (32 percent) than did the AWFS (47 percent). The AWFS included persons age 14 years and older while the CPS earnings microdata file consisted of persons age 15 years and older. However, the main reason for the age difference is the inclusion of more Hispanic workers in the CPS earnings microdata file. On average, Hispanic workers were older than white workers. The median age of 31 years found in the CPS earnings microdata file agrees with the median age of 31 years found in the NAWS (6).

The geographic distribution of hired farmworkers also differed between the two studies. For example, the percentage of hired farmworkers in the Pacific region from the

**Appendix table 1—Comparison of the characteristics of hired farmworkers from the 1987 AWFS and the 1990 CPS earnings microdata file**

Characteristic	1990 CPS earnings microdata file	1987 AWFS
<i>Percent</i>		
Total	100.0	100.0
Sex:		
Male	82.9	79.7
Female	17.1	20.3
Racial/ethnic group:		
White	61.0	77.9
Hispanic	29.4	13.7
Black and other	9.6	8.4
Age (years):		
Less than 20	16.2	21.6
20-24	15.3	25.2
25-34	28.4	22.9
35-44	19.2	12.8
45-54	10.2	8.8
55 and older	10.7	8.7
Median age (years)	31	26
Schooling completed (years):		
0-4	11.1	5.9
5-8	21.6	16.9
9-11	22.8	27.7
12	31.4	33.0
13 or more	13.1	16.6
Median years completed	11	11
Farm production region:		
Northeast	8.1	8.9
Lake States	8.2	11.9
Corn Belt	10.6	19.3
Northern Plains	5.1	6.4
Appalachia	8.1	10.8
Southeast	11.6	7.5
Delta States	4.8	5.6
Southern Plains	10.0	9.0
Mountain	9.1	8.6
Pacific	24.3	12.0

<sup>11</sup>The survey was named the Hired Farm Work Force Survey until 1985.

CPS earnings microdata file (24 percent) was twice that reported in the AWFS (12 percent). Conversely, the Corn Belt accounted for 11 percent of all farmworkers in the CPS earnings microdata file compared with 19 percent in the AWFS. These differences may be due to the timing of the two surveys. The location of farmworkers reported in the AWFS was based on their residence at the time of the survey in December. As a result, a person who did farmwork in one region early in the year, but who was living in another region in December, would be listed as having

worked in the region where he or she resided in December. On the other hand, in the CPS earnings microdata file, the length of time between the reference period and data collection was only 1 week, so there is less chance of a worker having moved to another region during that period. Data on labor expenditures from the 1987 Census of Agriculture (5) suggest that data from the CPS earnings microdata file are more likely to reflect the true geographic distribution of hired farmworkers.

