



United States  
Department of  
Agriculture



Agricultural  
Economic  
Report  
Number 748

*An Economic Research Service Report*

# Profile of Hired Farmworkers, 1994 Annual Averages

Jack L. Runyan



A281.9  
Ag8A

NAT'L AGRIC LIBRARY  
2:43

---

## 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 1-703-834-0125.**

Ask for *Profile of Hired Farmworkers, 1994* (AER-748).

The cost is \$9.00 per copy. For non-U.S. addresses (including Canada), add 25 percent. Charge your purchase to your VISA or MasterCard. Or send a check (made payable to ERS-NASS) to:

ERS-NASS  
341 Victory Drive  
Herndon, VA 20170-5217

For additional information about ERS publications, databases, and other products, both paper and electronic, visit the **ERS Home Page** on the Internet at <http://www.econ.ag.gov>

---

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call 1-800-245-6340 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

## **Abstract**

An average of 779,000 persons 15 years of age and older did hired farmwork each week as their primary job in 1994. An additional 66,000 persons did hired farmwork each week as their secondary job (a new classification for hired farmworkers in 1994). Hired farmworkers were more likely than all U.S. wage and salary workers to be male, Hispanic, younger, less educated, never married, and non-U.S. citizens. They continued to have earnings well below those of all wage and salary workers, although the wage gap has narrowed since 1990. After controlling for the effects of inflation, hired farmworkers' median earnings increased 5 percent between 1990 and 1994, while median weekly earnings for all wage and salary workers decreased about 2 percent. Almost 40 percent were employed in the South census region, and 36 percent were employed in the West census region. This report examines regional and structural patterns of farm labor use, and demographic and employment characteristics of hired farmworkers, using data from the 1992 *Census of Agriculture* and the 1994 Current Population Survey (CPS) earnings microdata file.

**Keywords:** Hired farmworkers, annual averages, demographic characteristics, hours worked, median weekly hours.

# Contents

Summary .....	iii
Definitions .....	iv
Introduction .....	1
Structural and Regional Patterns of Farm Labor Use .....	3
Structural Patterns of Labor Expenditures .....	3
Regional Patterns of Labor Expenditures .....	5
Demographic Characteristics of the 1994 Hired Farmworkers .....	6
Gender, Age, and Marital Status .....	6
Racial/Ethnic Group .....	7
Citizenship Status .....	7
Education Completed .....	8
Secondary Job Holders .....	9
Part- and Full-Time Workers .....	9
Geographic Distribution of Hired Farmworkers .....	11
Distribution of Hired Farmworkers by Establishment .....	11
Earnings Characteristics of Hired Farmworkers in 1994 .....	13
References .....	16
Appendix Table 1. Demographic and Earnings Characteristics Of Hired Farmworkers, 1990-1994 .....	17
Appendix Table 2. Demographic and Earnings Characteristics Of All Wage and Salary Workers, 1990-1994 .....	18

## Summary

Hired farmworkers continue to earn less than all wage and salary workers, but the wage gap has narrowed. Hired farmworkers' median weekly earnings in 1994 were \$238, an increase of 19 percent (5 percent when adjusted for inflation) from 1990; median weekly earnings for all wage and salary workers increased by 11 percent (a 2-percent decrease in real terms).

Hired farmworkers were more likely than all U.S. wage and salary workers to be male, Hispanic, younger, less educated, never married, and non-U.S. citizens. Thirty-six percent of hired farmworkers had less than a ninth-grade education, compared with less than 4 percent of all wage and salary workers.

An average of 779,000 persons (15 and older) did hired farmwork each week as their primary job in 1994. Though this represents less than 1 percent of U.S. wage and salary workers, hired farmworkers account for about 30 percent of farmworkers (farm operators and unpaid workers account for the rest). An additional 66,000 persons did hired farmwork as their secondary job during the week.

This report examines regional and structural patterns of farm labor use, and demographic and employment characteristics of hired farmworkers, using data from the 1992 *Census of Agriculture* and the 1994 Current Population Survey earnings microdata file. Additional findings of this report include:

- \* Almost all (98 percent) who reported farmwork as their secondary job worked in other agricultural establishments (agricultural services, forestry, fishing, landscape/horticultural services, etc.) and over half (54 percent) lived in the Midwest.
- \* More than 19 percent of the hired farm work force was employed part time (worked less than 35 hours per week) in 1994. These part-time workers were more likely to be female, white, younger, and never married, compared with full-time farmworkers.
- \* The South and West accounted for 75 percent of the hired farmworkers in 1994. The Northeast contained the fewest (about 6 percent).
- \* The hired farm work force in the Midwest had more white and fewer Hispanic workers, the West had more Hispanic workers and fewer white, and the South had more black and other workers than other regions.
- \* In the West, more of the hired farm work force was employed in crop production and less in livestock production than in other regions. In the Midwest, more of the hired farm work force was employed in livestock production and less in crop production than in other regions.

## Definitions

**Employed persons:** Persons 15 years of age and older who, during the survey week, 1) did any work as paid employees; 2) worked 15 hours or more as unpaid workers in a family enterprise; or 3) were not working but 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 did not work but 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 1992.

**Racial/ethnic group:** Refers to division of the population into three mutually exclusive groups—white, Hispanic, and black and other. “Hispanic” includes all persons who identified themselves in the enumeration process as Mexican, Mexicano, Puerto Rican, Cuban, Central or South American, or of other Hispanic origin or descent. “White” refers to white persons other than those of Hispanic origin. “Black and other” includes African-Americans and other groups such as Indians, Chinese, Japanese, and others not of Hispanic origin.

**Education:** Refers to the highest level of school completed or the highest degree received.

**Full-time workers:** Persons who usually work 35 hours or more per week. Persons working less than 35 hours per week are considered part time.

**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 farm job, before deductions, and includes overtime pay or commissions.

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

**Crop production**—Establishments primarily engaged in producing crops, plants, vines, and trees (excluding forestry operations).

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

**Other agricultural establishments**—Establishments primarily engaged in agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

**Family income:** Combined income of all family members during the last 12 months. Includes money from jobs; net income from businesses, farms or rents; pensions, dividends, interest, social security payments, and any other money income received by family members who are 15 years of age and older.

**Expenditures for labor:** Expenditures for farm labor were divided into two groups for the *Census of Agriculture*.

**Hired farm and ranch labor**—Includes gross salaries and wages; commissions; dismissal pay; vacation pay; and bonuses to hired workers, family members, hired managers, administrative, clerical employees, and salaried corporate officers. Also includes supplemental cost for benefits such as employer's social security contributions, unemployment compensation, workers' compensation insurance, life and medical insurance, pension plans, etc.

**Contract labor**—Includes the labor costs of workers furnished on a contract basis by a labor contractor, crew leader, or cooperative for harvesting vegetables or fruit, shearing sheep, or similar farm activities. Does not include costs for building or repairs done by a construction contractor.

# Profile of Hired Farmworkers, 1994 Annual Averages

Jack L. Runyan

## Introduction

Hired farmworkers, a small part of U.S. wage and salary workers (less than 1 percent in 1994), are an important part of agricultural production, accounting for about 30 percent of farmworkers. Farm operators and unpaid workers are the other 70 percent (Farm Labor, U.S. Department of Labor, 1994).<sup>1</sup> Hired farmworkers help provide labor during critical production periods. Some hired farmworkers migrate from one production area to another during several months of the year, others work locally during harvesting season, and some work full time for a local employer. Although quite important to agriculture, hired farmworkers continue to be one of the most economically disadvantaged groups in the United States, experiencing low wages, seasonal employment, weak attachment to the labor force, and limited nonfarm employment opportunities (Oliveira, 1992, and U.S. Department of Labor, 1991).

During the 1990's, the U.S. House of Representatives has held several hearings on a broad range of concerns related 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 status and to determine how best to improve their situation (Delfico, 1991). Congress has considered major legislative reform of the living and working conditions, including proposals related to immigration, temporary foreign worker programs in agriculture, and an increase in the minimum wage (legislation was enacted to raise the minimum wage to \$5.15 over 2 years). Basic information on the patterns of farm labor use and the demographic and employment characteristics of hired farmworkers help inform the policy debate about the effects of changing legislation. Currently, no one comprehen-

sive data set provides the necessary details to help us understand issues related to changes in the supply, demand, wages, earnings, benefits, and characteristics of farmworkers at both the local and national level. In this paper, two data sets are examined to provide a broader perspective.

## The Data

This report uses data from the *Census of Agriculture* and the Current Population Survey (CPS) earnings microdata file (see box) to examine patterns of hired farm labor use, and demographic, earnings, and geographic characteristics of hired farmworkers.

The *Census of Agriculture* is conducted by the Bureau of the Census every 5 years, for years ending in 2 and 7. Census reporting forms were mailed to approximately 3,554,000 individuals, businesses, and organizations in 1992. The CPS information is 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 estimates across all months and dividing by 12. The annual average represents the average number of people employed at hired farmwork per week, not the total number of persons employed.<sup>2</sup>

The CPS was redesigned in 1994, affecting "virtually every aspect of the survey, including the questionnaire, data collection methods, and the processing system" (*Monthly Labor Review*, 1993). As a result, data for 1994 are not directly comparable with data for 1993 and earlier years. A detailed description of the reasons for redesigning the CPS and the potential changes and benefits are presented in Bregger and Diplo, 1993, Polivka and Rothgeb, 1993, and Bowie, Cahoon, and Martin, 1993.

<sup>1</sup>In times of peak labor use (July), hired workers account for about 33 percent of farm workers, and in off-peak times they account for about 28 percent (Farm Labor).

<sup>2</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

Data from two sources were used for this analysis. One is the *Census of Agriculture*, an establishment survey, and the other is the Current Population Survey, a household survey.

### Census of Agriculture

The *Census of Agriculture*, conducted by the Bureau of the Census, is the leading source of statistics about the Nation's agricultural production and is the most comprehensive source of agricultural data available at the county level. It offers the most complete geographic coverage of hired and contract farm labor use as measured by labor expenditures. Expenditure data can be used to show the magnitude of labor use and to estimate the share of production expenses attributed to labor, by size of farm.

The *Census of Agriculture* is a mail survey of U.S. farms and ranches. The mailing list for the 1992 Census generated 1.7 million useable questionnaires. After adjusting for nonrespondents, survey data were expanded to the estimated 1.9 million farms in the U.S. To reduce respondent burden, some questions were asked of a sample of farms. Data on hired and contract labor expenditures were collected from a sample of about 486,000 farm operators in 1992.

**Limitations:** The Census data on hired workers refer to all hired persons on the farm, including bookkeepers, secretaries, and mechanics who are not generally considered to be hired farmworkers. Expenditure data do not include payment in-kind, such as meals and lodging. All expenditures for labor involved in custom work are combined with expenses for machine hire. The Census does not collect information on the demographic and job characteristics of hired and contract workers. Since the Census data are collected once every 5 years, they may not reflect the most recent changes in the farm labor situation.

### 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 questions.)

Each month, about 60,000 households are sampled in all 50 States and the District of Columbia. Once a household is selected, it is interviewed for 4 consecutive months, dropped from the survey for 8 months, then interviewed for a final 4 months. Approximately one-quarter 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 fourth or eighth month in the sample) are asked additional questions on weekly hours worked and earnings. The 1994 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 asked about the hours worked and earnings made during 1994. The data file contained information on almost 463,000 persons, including over 1,200 who were employed as hired farmworkers. Data comparisons in the text are based on data significant at the 95-percent confidence level or higher.

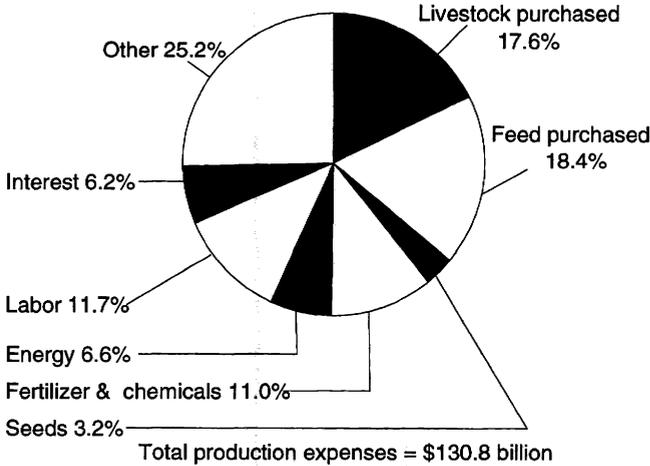
**Limitations:** The CPS classifies employed persons according to the job at which they worked the greatest number of hours during the survey week. As a result, hired farmworkers who spent more time during the survey week at their non-farm job than their farm job would not be included in the count of hired farmworkers. These workers would be counted in 1994 as having hired farmwork as their secondary employment.

The CPS may also undercount Hispanics in the hired farm work force. Because the CPS is based on a survey of households, it may undercount farmworkers living in unconventional living quarters, many of whom are likely to be Hispanic. In addition, undocumented foreign farmworkers may, because of their illegal status, avoid survey enumerators.

# Structural and Regional Patterns of Farm Labor Use

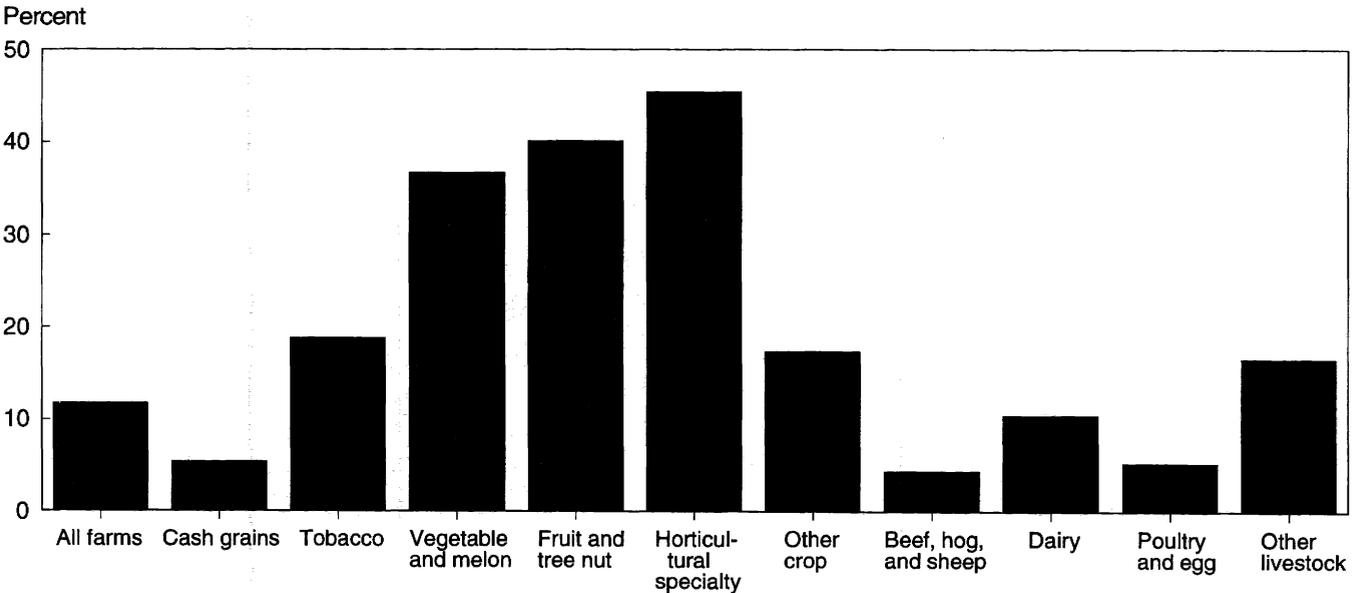
Expenditures for hired and contract workers are often used as indicators of farm labor use. In 1992, about 933,000 farms (48 percent) had expenditures for hired and contract labor amounting to about \$15.3 billion, or about 12 percent of total farm production expenditures (fig. 1). The proportion of total expenditures for hired

Figure 1  
**U.S. farm production expenses, 1992**



Source: Economic Research Service, compiled from the 1992 Census of Agriculture.

Figure 2  
**Labor's share of farm production expenses, 1992 1/**



1/ Hired labor expenditure data for cotton and general farms, primarily livestock, were not published in the 1992 Census of Agriculture.

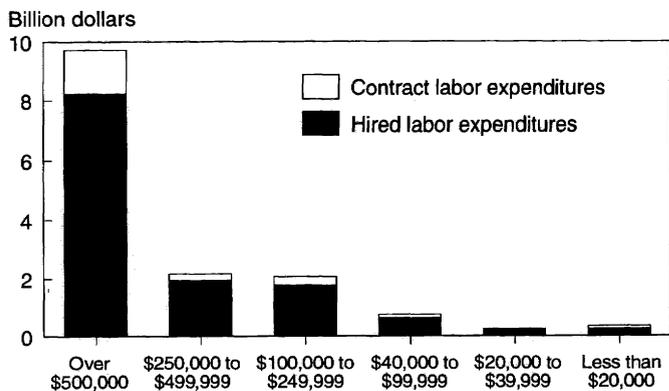
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

and contract labor in 1992 ranged from a low of 4 percent for livestock farms (beef cattle, hog, and sheep) to a high of 45 percent for horticultural specialty farms (fig. 2).

## Structural Patterns of Labor Expenditures

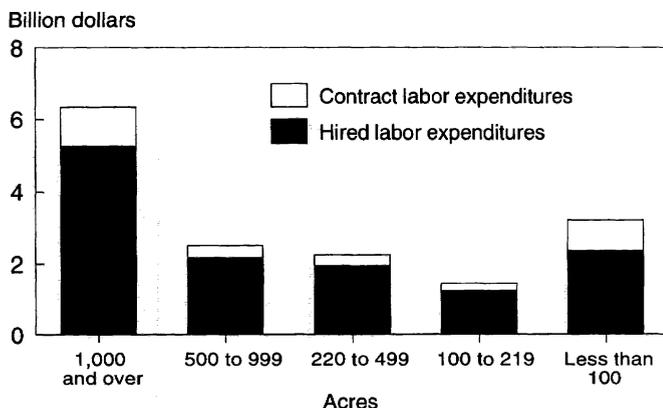
Structural patterns of farm labor are based on the market value of agricultural products sold (value of sales), size of farm (acreage), and type of farm (cash grain, livestock, etc.). Employment of hired and contract workers was concentrated on larger farms. Farms with sales of \$250,000 and over had the largest amount of hired and contract labor expenditures in 1992 (almost 78 percent) as shown in fig. 3, but they accounted for about 15 percent of farms with hired and contract labor expenditures. As shown in figs. 4 and 5, farms with a large value of sales also had higher per-farm hired and contract labor expenditures. Farms with 500 or more acres accounted for only about 1 percent of those with hired and contract labor expenditures but accounted for the largest amount of the expenditures (about 58 percent) (fig. 6). These large farms also had higher average hired and contract labor expenditures (figs. 7 and 8). Vegetable and melon, fruit and tree nut, and horticultural specialty farms accounted for about 13 percent of the farms with hired and contract labor expenditures

**Figure 3**  
**Hired and contract labor expenditures by value of agricultural sales per farm, 1992**



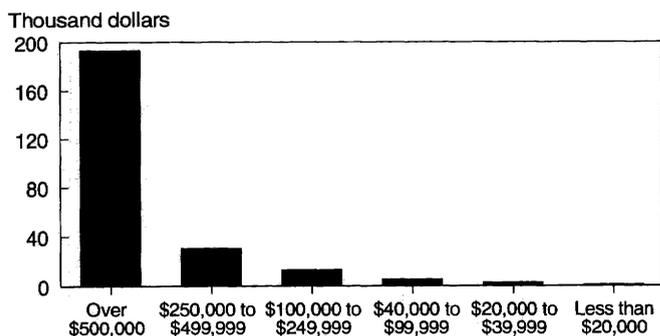
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

**Figure 6**  
**Hired and contract labor expenditures by size of farm, 1992**



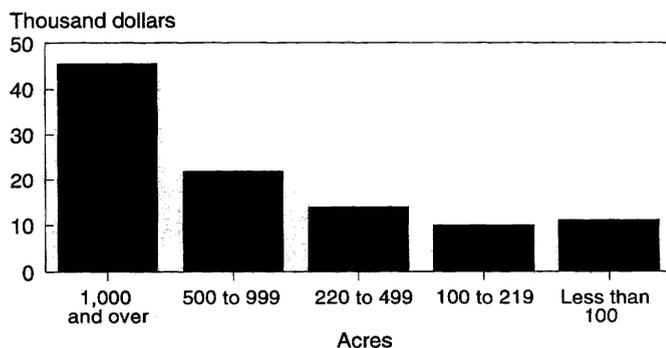
Source: Prepared by Economic Research Service from data compiled in the 1992 Census of Agriculture.

**Figure 4**  
**Hired labor expenditures per farm by value of sales, 1992**



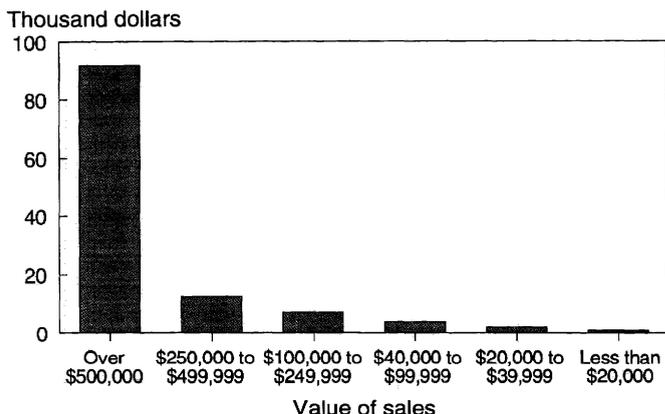
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

**Figure 7**  
**Hired labor expenditures per farm by size of farm, 1992**



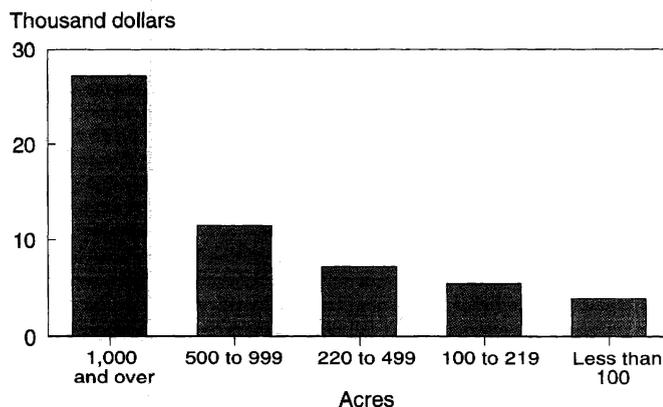
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

**Figure 5**  
**Contract labor expenditures per farm by value of sales, 1992**



Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

**Figure 8**  
**Contract labor expenditures per farm by size of farm, 1992**



Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

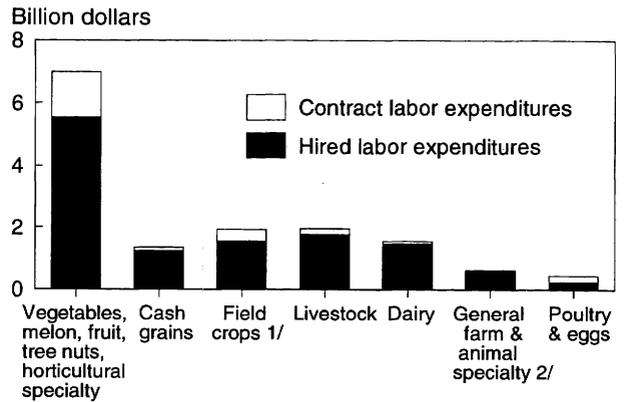
but accounted for the largest part (about 47 percent) of those expenditures in 1992 (fig. 9). These same types of farms also had higher per farm hired and contract labor expenditures (figs. 10 and 11).

### Regional Patterns of Labor Expenditures

Hired and contract labor expenditures were reported in all States in 1992. They ranged from about \$4 million in Alaska to about \$4 billion in California (fig. 12). California, Florida, and Texas accounted for about 38 percent of all farm labor expenditures in 1992, even though they accounted for only 19 percent of the farms with these expenditures.

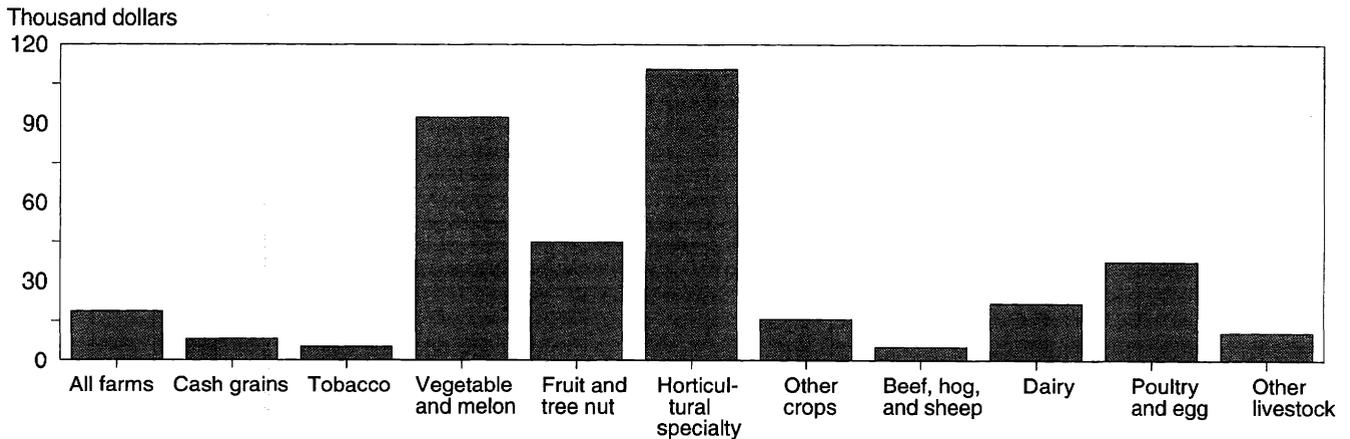
In 1992, about 48 percent of all U.S. farms reported hired and contract labor expenditures. California had

Figure 9  
**Hired and contract labor expenditures by type of farm, 1992**



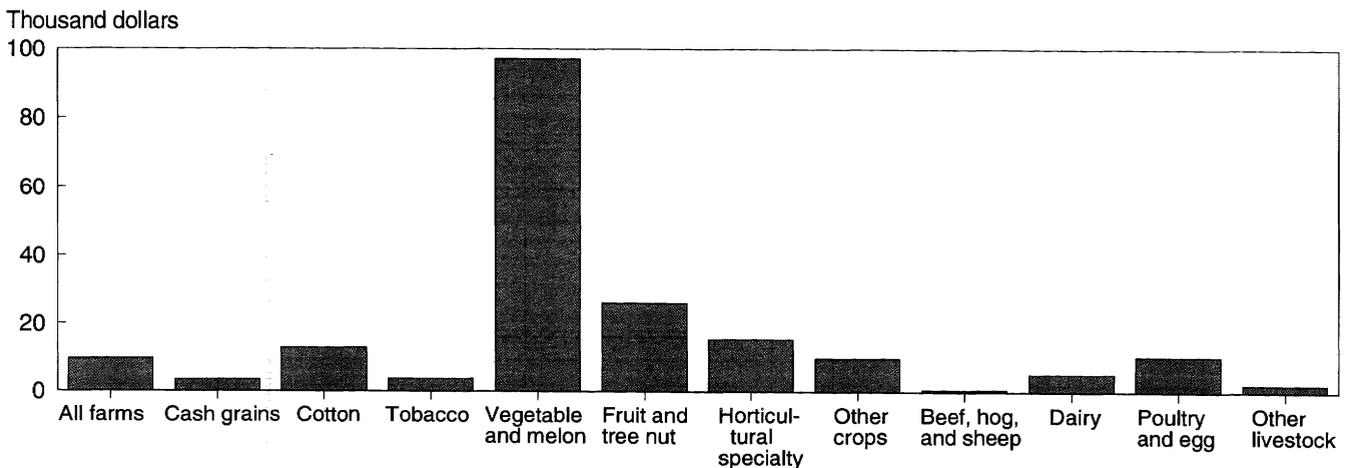
1/ Hired labor expenditure for cotton not published in 1992 Census of Agriculture.  
2/ Hired labor expenditure data for general farms, primarily livestock, not published in 1992 Census of Agriculture.  
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

Figure 10  
**Hired labor expenditures per farm by type of farm, 1992 1/**



1/ Hired labor expenditure data for cotton and general farms, primarily livestock, were not published in the 1992 Census of Agriculture.  
Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

Figure 11  
**Contract labor expenditures per farm by type of farm, 1992**

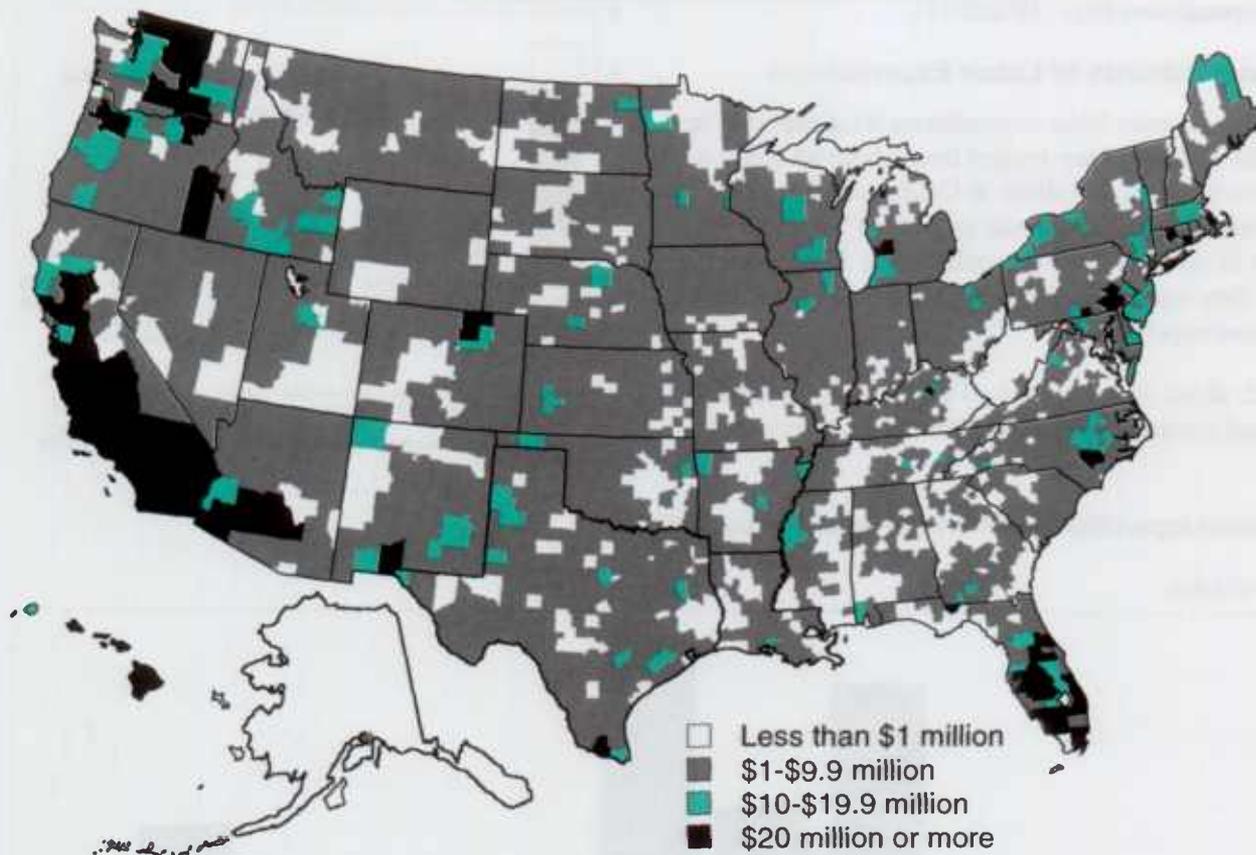


Source: Prepared by the Economic Research Service from data compiled in the 1992 Census of Agriculture.

Figure 12

## Hired and contract labor expenses on farms, 1992

California, Florida, and Texas accounted for 38 percent of farm labor expenditures



Source: Calculated by ERS using data from the 1992 Census of Agriculture.

the greatest share of farms reporting labor expenditures (83 percent) and Ohio the lowest (36 percent).

### Demographic Characteristics of the 1994 Hired Farmworkers

An average of slightly less than 108 million persons age 15 and older were employed per week at wage and salary jobs in the United States in 1994 (table 1). Of these, 779,000 persons (less than 1 percent) identified hired farmwork as their primary employment, that is, farmwork for cash wages or salary. Hired farmworkers include persons paid to manage farms for employers, supervisors of farmworkers, and farm and nursery workers. This group also includes those hired directly by the farmer, as well as those employed by farm labor contractors.

Hired farmworkers tend to be younger and less educated than all wage and salary workers and are more likely to be male, Hispanic, and never married. Demographic information on hired farmworkers from 1990 to 1994 is presented in appendix table 1 and for all wage and salary workers in appendix table 2.

#### Gender, Age, and Marital Status

Males accounted for about 84 percent of hired farmworkers and about 52 percent of all wage and salary workers in 1994 (table 1). These percentages have remained constant in recent years.

Hired farmworkers were younger than all wage and salary workers in 1994, as they have been throughout the 1990's. More than half (55 percent) of the hired farmworkers were under 35 years of age and about 27 percent were less than 25 years of age. In comparison, 44 percent of all wage and salary workers were under 35 years of age and 17 percent were under 25 years of age.

**Table 1—Demographic characteristics of hired farmworkers and all wage and salary workers, 1994**

Characteristics	Annual averages			
	Hired farmworkers		All wage and salary workers	
	Thousands	Percent	Thousands	Percent
Total	779	100	107,824	100
Gender:				
Male	653	83.8	56,465	52.4
Female	126	16.2	51,359	47.6
Racial/ethnic group:				
White	394	50.5	82,240	76.3
Hispanic	326	41.9	10,014	9.3
Black and other	59	7.6	15,570	14.4
Age (years):				
Less than 20	84	10.7	5,874	5.4
20-24	125	16.1	12,309	11.4
25-34	223	28.5	29,575	27.4
35-44	164	21.1	29,108	27.0
45-54	105	13.5	19,642	18.3
55 and older	78	10.1	11,316	10.5
Median age	32		36	
Marital status:				
Married	464	59.5	62,663	58.1
Widowed, divorced, or separated	69	8.9	15,587	14.5
Never married	246	31.6	29,574	27.4
Schooling completed: <sup>1</sup>				
0-4 years	106	13.5	848	0.8
5-8 years	175	22.5	3,024	2.8
9-11 years	173	22.2	10,193	9.5
12 years	202	26.0	35,959	33.3
13 years or more	123	15.8	57,800	53.6

<sup>1</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

More than half of both hired farmworkers and all wage and salary workers are married. However, more hired farmworkers (32 percent) than all wage and salary workers (27 percent) have never been married. These percentages have remained fairly constant throughout the 1990's.

### Racial/Ethnic Group

A notable feature of the hired farm work force is the large number of Hispanic workers. The hired farm work force in 1994 was about 51 percent white, 42 percent Hispanic, and 8 percent black and other (table 1). The U.S. wage and salary work force, in comparison, was about 76 percent white, 9 percent Hispanic, and 14 percent black and other.

Concern over the undercounting of Hispanics in past years was part of the justification for the 1994 CPS redesign. The results of the effort to correct this undercounting problem may at least partially explain the significant change in the number of white, Hispanic, and black-and-other hired farmworkers between 1992 and 1994. In 1992 the CPS reported that the hired farm work force was made up of 506,000 white workers

(about 60 percent of the hired farm work force), 260,000 Hispanic workers (about 31 percent), and 82,000 black and other workers (about 10 percent). The percentages shown for 1992 are fairly consistent with those for the years immediately preceding 1994. Increasing the number of Hispanics in the sample should also have increased the number of hired farmworkers, but this did not happen in 1994.

### Citizenship Status

About 63 percent of hired farmworkers were born in the United States and 34 percent were foreign-born and not U.S. citizens. In comparison, 89 percent of all wage and salary workers were native-born in the United States and 7 percent were foreign-born and not U.S. citizens (table 2). Most of the hired farmworkers who were foreign-born non-U.S. citizens were Hispanic (table 3). Among all wage and salary workers, there were significantly more Hispanic and black and other workers in the noncitizen group than in the total group.

Most noncitizen hired farmworkers were employed in crop production (70.3 percent). Employment in live-

**Table 2—Citizenship status of hired farmworkers and all wage and salary workers, 1994**

Citizenship status	Annual averages	
	Hired farmworkers	All wage and salary workers
	Thousands	
Total	779	107,824
	Percent	
Total	100	100
Native, born in the United States	62.6	88.9
Native, born in Puerto Rico or U.S. outlying area	0.1	0.4
Native, born abroad of American parent(s)	0.6	1.0
Foreign born, U.S. citizen by naturalization	2.6	2.6
Foreign born, not a U.S. citizen	34.1	7.1

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Table 3—Gender, race, age, and education characteristics of foreign-born workers who were not citizens of the United States, 1994**

Characteristics	Annual averages	
	Hired farmworkers	All wage and salary workers
	Thousands	
Total	266	7,630
	Percent	
Total	100	100
Gender:		
Male	86.0	62.0
Female	14.0	38.0
Race/ethnic:		
White	3.3	18.8
Hispanic	95.9	55.9
Black and other	0.8	25.3
Age (years):		
Less than 20	5.2	4.0
20-24	18.5	13.9
25-34	35.2	35.0
35-44	20.2	26.6
45-54	14.5	13.5
55 and older	6.4	7.0
Schooling completed: <sup>1</sup>		
0-4 years	33.0	7.8
5-8 years	41.3	17.7
9-11 years	13.0	13.7
12 years	8.8	25.5
13 years and more	3.9	36.3

<sup>1</sup>Education attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

stock production accounted for 21.4 percent and those in other agriculture accounted for 8.3 percent of non-citizen hired farmworkers.<sup>3</sup>

## Education Completed

More than half of the hired farmworkers had not completed a formal secondary education in 1994. Over 58 percent of hired farmworkers had not completed high school, compared with 13 percent of all wage and salary workers. A stronger indication of the educational discrepancy between the two groups is that 36 percent of hired farmworkers have less than a ninth-grade education, compared with less than 4 percent of all wage and salary workers. Over 58 percent of hired farmworkers, compared with 13 percent of all wage and salary workers, lack the literacy skills required to function successfully in a complex technological society (U.S. Department of Labor, 1991).

Years of schooling completed by hired farmworkers varied significantly by racial/ethnic group (table 4). Almost 85 percent of Hispanic hired farmworkers had less than 12 years of formal education, almost 30 percent had less than 5 years, and about 38 percent had 5 to 8 years. Almost 61 percent of black-and-other hired farmworkers had less than 12 years of education, 8 percent had less than 5 years, and about 11 percent had 5 to 8 years of education. About 36 percent of white workers had less than 12 years of education.

**Table 4—Years of education completed by hired farmworkers, by racial/ethnic group, 1994<sup>1</sup>**

Years of schooling completed	Annual averages		
	White	Hispanic	Black and other
	<i>Thousands</i>		
Total	394	326	59
	<i>Percent</i>		
Total	100.0	100.0	100.0
0-4	1.1	29.7	8.3
5-8	11.1	38.3	10.6
9-11	23.5	16.9	41.8
12	37.3	11.9	27.8
13 or more	27.0	3.2	11.5

<sup>1</sup> Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed. Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

<sup>3</sup>Other agricultural establishments include, in addition to agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

Almost one-third of the noncitizen hired farmworkers had completed less than 5 years of education, and over 77 percent had completed less than 12 years, significantly greater than for all hired farmworkers and for all noncitizen wage and salary workers. Noncitizens among wage and salary workers also had significantly fewer years of education completed than the average for all wage and salary workers.

## Secondary Job Holders

For the first time in 1994, the CPS began collecting information on secondary job holders, that is, workers who held more than one job during the reference week. The job at which the worker spent the most hours was the primary occupation and the job with the next greatest number of hours was secondary. These data, combined with that for primary hired farmwork job holders, should provide more accurate data about the hired farm work force in the future.

About 66,000 people had secondary jobs as hired farmworkers in 1994 (table 5).<sup>4</sup> These workers were more likely than all hired farmworkers to be female, white, and better educated (similar to all wage and salary workers). Most of these workers (98 percent) were employed in other agricultural establishments, and 2 percent were employed in crop production. About 54 percent of the secondary job holders lived in the Midwest, followed by about 18 percent in the South and West, and 10 percent in the Northeast. Almost all (97 percent) were native, born in the United States.

## Part- and Full-Time Workers

About 20 percent (151,000) of hired farmworkers and about 19 percent (20,442,000) of all wage and salary workers worked part time (less than 35 hours per week) in 1994 (table 6).<sup>5</sup> Part-time hired farmworkers were more likely than full-time hired farmworkers to be female, white, younger, and never married. A significantly larger percent of part-time than full-time hired farmworkers had completed 9 to 11 years of education.

<sup>4</sup>Employed people who had either two or more jobs as a wage and salary worker, were self employed and also held a wage and salary job, or worked as an unpaid family worker and also held a wage and salary job and reported hired farmwork as their secondary job.

<sup>5</sup>Part-time and full-time distinctions do not imply seasonality, since the data do not measure the number of weeks worked during the year.

**Table 5—Demographic characteristics of persons reporting their secondary job as hired farmworkers, 1994<sup>1</sup>**

Characteristics	Annual averages	
	Thousands	Percent
Total	66	100
Gender:		
Male	43	65
Female	23	35
Race/ethnic:		
White	61	93
Hispanic	4	5
Black and other	1	2
Age (years):		
Less than 20	6	10
20-24	13	20
25-34	11	16
35-44	18	28
45-54	11	16
55 and older	7	10
Median age	35	
Schooling completed: <sup>2</sup>		
0-4 years	0	0
5-8 years	2	2
9-11 years	7	10
12 years	20	31
13 years and more	37	57

<sup>1</sup>Employed people who had either two or more jobs as a wage and salary worker, were self-employed and also held a wage and salary job, or worked as an unpaid family worker and also held a wage and salary job and reported hired farmwork as their secondary job.

<sup>2</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Otherwise, the education completed by the two groups of hired farmworkers was similar.

Part-time workers were asked whether or not they worked part time voluntarily. These choices were classified as noneconomic reasons if they voluntarily worked part time, and as economic reasons if they involuntarily worked part time.<sup>6</sup>

The largest percentage of both groups gave the same noneconomic reason (other family/personal obligations) for working part time. However, a significantly greater percent of hired farmworkers than all wage and salary workers gave school/training as the reason they wanted to work part time (table 7).

The majority of both groups of part-time workers gave the same economic reasons for working part time, “slack work/business conditions” and “could only find part-time work” (table 8). However, a significantly

<sup>6</sup>Persons who usually work part-time must also indicate that they want and are available to work full-time to be classified as part-time for economic reasons.

**Table 6—Demographic characteristics of part-time (work less than 35 hours per week) and full-time hired farmworkers and all wage and salary workers, 1994**

Characteristics	Annual averages							
	Hired farmworkers				All wage and salary workers			
	Part time		Full time		Part time		Full time	
	Thousands	Percent	Thousands	Percent	Thousands	Percent	Thousands	Percent
Total	151	100	628	100	20,442	100	87,382	100
Gender:								
Male	101	66.9	552	87.9	6,471	31.7	49,994	57.2
Female	51	33.1	76	12.1	13,971	68.3	37,388	42.8
Racial/ethnic group:								
White	95	62.8	299	47.6	16,079	78.6	66,161	75.7
Hispanic	45	30.0	281	44.7	1,735	8.5	8,279	9.5
Black and other	11	7.2	48	7.7	2,628	12.9	12,942	14.8
Age (years):								
Less than 20	46	30.2	38	6.0	4,165	20.4	1,709	2.0
20-24	29	19.3	96	15.3	3,563	17.4	8,746	10.0
25-34	30	19.7	193	30.7	3,866	18.9	25,709	29.4
35-44	18	11.9	146	23.3	3,668	18.0	25,440	29.1
45-54	10	6.5	95	15.2	2,234	10.9	17,408	19.9
55 and older	18	12.4	60	9.5	2,946	14.4	8,370	9.6
Median age	25		34		31		37	
Marital status:								
Married	56	37.0	407	64.8	9,225	45.1	53,438	61.2
Widowed, divorced, or separated	11	7.3	58	9.2	2,369	11.6	13,218	15.1
Never married	84	55.7	163	26.0	8,848	43.3	20,726	23.7
Schooling completed: <sup>1</sup>								
0-4 years	20	13.4	86	13.6	212	1.0	636	0.7
5-8 years	30	19.8	145	23.1	581	2.8	2,443	2.8
9-11 years	51	33.6	122	19.4	3,900	19.1	6,293	7.2
12 years	32	21.0	170	27.1	5,967	29.2	29,992	34.3
13 years or more	18	12.2	105	16.8	9,782	47.9	48,018	55.0

<sup>1</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Table 7—Reasons why workers want to work part time, 1994**

Reasons	Annual averages	
	Hired farmworkers	All wage and salary workers
	Thousands	
Total workers	69	12,797
	Percent	
Child care problems	2.7	4.3
Other family/personal obligations	20.0	28.9
Health/medical limitations	4.9	3.5
School/training	60.2	42.4
Retired/Social Security limit on earnings	8.2	9.8
Full-time work week less than 35 hours	2.3	3.5
Other	1.7	7.6

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Table 8—Reasons why workers who want to work full time are working part time, 1994**

Reasons	Annual averages	
	Hired farmworkers	All wage and salary workers
	Thousands	
Total workers	65	4,675
	Percent	
Slack work/business conditions	38.7	26.0
Could only find part-time work	40.5	42.0
Seasonal work	10.7	1.2
Child care problems	2.0	2.3
Other family/personal obligations	2.7	5.7
Health/medical limitations	1.6	1.9
School/training	1.0	9.6
Retired/Social Security limit on earnings	1.0	0.3
Full-time work week less than 35 hours	0.6	3.7
Other	1.2	7.3

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

greater percentage of hired farmworkers (10.7 compared with 1.2 percent) gave "seasonal work" as the reason for working part time when they preferred full-time work.

## Geographic Distribution of Hired Farmworkers

Demand for workers varies by the type of crop and livestock activity, length of growing and harvesting seasons, extent of mechanization, and scale of production. As a result, the number of hired farmworkers continued to vary significantly among the census regions in 1994 (table 9). The South had 310,000 hired farmworkers, almost 40 percent of the U.S. total in 1994. The South and West regions accounted for 75 percent of hired farmworkers in 1994. The Northeast contained the smallest number of workers (46,000, about 6 percent).

The number of farmworkers in the Midwest census region in 1994 was significantly less than in 1990, 1991, and 1992. In the other census regions, the changes were not significant.

The demographic characteristics of hired farmworkers, except gender, vary among the census regions (data for the Northeast region are not included in the comparison because of sample size)(table 10). The hired farm work force in the Midwest region had more white and fewer Hispanic workers, the West had more Hispanic workers and fewer white, and the South had more black and other workers than other regions (table 10). The Midwest hired farm work force was younger than the West hired farm work force. The hired farm work force in the Midwest also had completed more years of education than the hired farm work force in the West (table 10).

In the West, more of the hired farm work force was employed in crop production and less in livestock

production than in other regions. In the Midwest, more of the hired farm work force was employed in livestock production and less in crop production than in other regions.

## Distribution of Hired Farmworkers by Establishment

More than 50 percent of hired farmworkers were employed in crop production in 1994, more than 39 percent in livestock production, and more than 8 percent in other agricultural establishments (table 11).<sup>7</sup> Throughout the 1990's, the portion of the hired farm work force employed in crop, livestock, and other establishments has remained about 50, 40, and 8 percent, respectively (table 11).

There were also differences in the demographic characteristics of workers among establishment types (table 12). Males accounted for a smaller percentage of the work force in "other" agricultural establishments than in either crop or livestock production establishments. A greater percentage of livestock workers and a smaller percentage of crop workers were white. Hispanic workers made up a greater percentage of crop workers and a smaller percent of livestock workers. The only significant differences in the age groupings were between livestock workers and other agricultural workers in "less than 20" and "45-54" groups (more livestock workers were in the younger group and fewer in the older group).

Fewer livestock workers than crop or other agricultural workers had 0-4 years of education and more had 9-11 years of education. The share of crop workers with 5-8

<sup>7</sup>Other establishments include, in addition to agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

**Table 9—Number of hired farmworkers by region, 1990 to 1994**

Region	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
	Thousands					Percent				
Total	886	884	848	803	779	100	100	100	100	100
Northeast	62	54	52	49	46	6.9	6.1	6.1	6.1	5.9
South	315	328	320	301	310	35.6	37.1	37.8	37.5	39.8
Midwest	214	206	201	172	140	24.1	23.3	23.7	21.4	18.0
West	295	296	275	281	283	33.4	33.5	32.4	35.0	36.3

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes to survey design.

**Table 10—Demographic and earnings characteristics of hired farmworkers by census region, 1994**

Characteristics	Northeast	South	Midwest	West
	Annual averages			
	Thousands			
Total	46	310	140	283
	Percent			
Gender:				
Male	---- <sup>1</sup>	86.2	82.1	85.0
Female	----	13.8	17.9	15.0
Racial/ethnic group:				
White	----	46.8	96.1	24.8
Hispanic	----	37.8	2.6	71.9
Black and other	----	15.4	1.3	3.3
Age (years):				
Less than 20	----	10.6	19.0	5.5
20-24	----	18.4	17.1	11.5
25-34	----	25.5	24.3	35.0
35-44	----	21.5	16.7	23.3
45-54	----	14.2	9.0	16.2
55 and older	----	9.8	13.9	8.5
Median age	----	32	30	34
Schooling completed <sup>2</sup> :				
0-4 years	----	11.4	2.6	23.6
5-8 years	----	25.3	8.3	28.6
9-11 years	----	27.5	20.9	17.3
12 years	----	21.0	45.2	18.2
13 years or more	----	14.8	23.0	12.3
Establishment:				
Crop production	----	54.1	27.6	65.4
Livestock production	----	38.9	65.4	23.8
Other establishments <sup>3</sup>	----	7.0	7.0	10.8
Weekly earnings:				
Less than \$100	----	9.6	18.0	4.8
\$100-\$199	----	31.9	21.4	17.4
\$200-\$299	----	37.0	26.6	37.0
\$300-\$399	----	12.7	19.1	25.8
\$400-\$499	----	5.6	7.2	9.2
\$500-\$599	----	2.1	6.2	2.2
\$600 and over	----	1.1	1.5	3.6
Median weekly earnings	----	\$210	\$240	\$265

<sup>1</sup> Percentages not shown where base is less than 50,000.

<sup>2</sup> Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

<sup>3</sup> Other establishments include, in addition to agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Table 11—Number of hired farmworkers by establishment type, 1990 to 1994**

Establishment	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
	Annual averages									
	Thousands					Percent				
Total	886	884	848	803	779	100	100	100	100	100
Crop production	419	449	409	436	405	47.3	50.7	48.2	54.3	52.0
Livestock production	390	363	364	313	307	44.0	41.0	42.9	39.0	39.4
Other establishments <sup>1</sup>	77	72	75	54	67	8.7	8.2	8.9	6.7	8.6

<sup>1</sup> Other establishments include, in addition to agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes to survey design.

**Table 12—Demographic and earnings characteristics of hired farmworkers by establishment, 1994**

Characteristics	Annual averages		
	Crop production	Livestock production	Other establishments <sup>1</sup>
		Thousands	
Total	405	307	67
		Percent	
Gender:			
Male <sup>1</sup>	84.8	85.7	68.5
Female	15.2	14.3	31.5
Racial/ethnic group:			
White	32.3	74.3	51.6
Hispanic	59.2	19.7	38.8
Black and other	8.5	6.0	9.6
Age (years):			
Less than 20	9.7	13.6	3.9
20-24	16.2	15.1	19.7
25-34	25.9	32.2	27.7
35-44	22.3	20.4	17.0
45-54	15.9	8.9	19.9
55 and older	10.0	9.8	11.8
Median age	34	31	32
Schooling completed <sup>2</sup> :			
0-4 years	18.8	5.7	18.1
5-8 years	28.7	16.1	13.8
9-11 years	19.9	26.4	16.2
12 years	22.0	31.4	24.2
13 years or more	10.6	20.4	27.7
Census region:			
Northeast	5.7	6.3	10.8
South	38.0	37.0	23.5
Midwest	15.4	33.8	21.1
West	40.9	22.9	44.6
Weekly earnings:			
Less than \$100	7.7	13.5	8.2
\$100-\$199	25.1	21.5	30.8
\$200-\$299	36.4	32.3	32.0
\$300-\$399	18.7	19.8	14.8
\$400-\$499	7.3	7.9	5.6
\$500-\$599	2.7	2.6	5.0
\$600 and over	2.1	2.4	3.6
Median weekly earnings	\$231	\$240	\$231

<sup>1</sup> Other establishments include, in addition to agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural related establishments.

<sup>2</sup> Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

years of education was greater than the share of livestock and “other” workers. The share of crop workers with 13 or more years of education was greater than the share of livestock and “other” workers in the other types of establishments. Fewer crop workers than livestock workers had completed 12 years of education.

In the South, more workers were employed in crop production than in other agricultural establishments. In the Midwest, more were employed in livestock production than in crop and “other” agricultural establishments, while in the West, fewer workers were employed in livestock production than in either crop or “other” establishment types.

## Earnings Characteristics of Hired Farmworkers in 1994

The median weekly earnings for hired farmworkers were considerably lower than for all wage and salary workers. Hired farmworkers received median weekly earnings of \$238, about 60 percent of the \$400 per week received by all wage and salary workers (table 13).<sup>8</sup> The wage gap appears to have narrowed since 1992 when hired farmworkers received median weekly earnings of 52 percent

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

**Table 13—Weekly earnings of hired farmworkers and all wage and salary workers, 1994**

Characteristics	Annual averages	
	Hired farmworkers	All wage and salary workers
	Thousands	
Total	779	107,824
	Percent	
Weekly earnings:		
Less than \$100	10.1	6.6
\$100-\$199	24.1	11.7
\$200-\$299	34.4	16.5
\$300-\$399	18.8	14.3
\$400-\$499	7.4	12.7
\$500-\$599	2.8	9.7
\$600 and over	2.4	28.5
Median weekly earnings	\$238	\$400

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

of what all wage and salary workers received (appendix tables 1 and 2).

Between 1990 and 1994, the median weekly earnings of hired farmworkers increased 19 percent, while the median weekly earnings of all wage and salary workers increased 11 percent. After adjusting for inflation, the median weekly earnings of hired farmworkers increased 5 percent and the median weekly earnings of all wage and salary workers decreased by 2 percent. Figure 13 shows that hired farmworkers continued to be ranked near the bottom of 13 major occupational groups, with only private household service workers earning less in 1994 for full-time work.

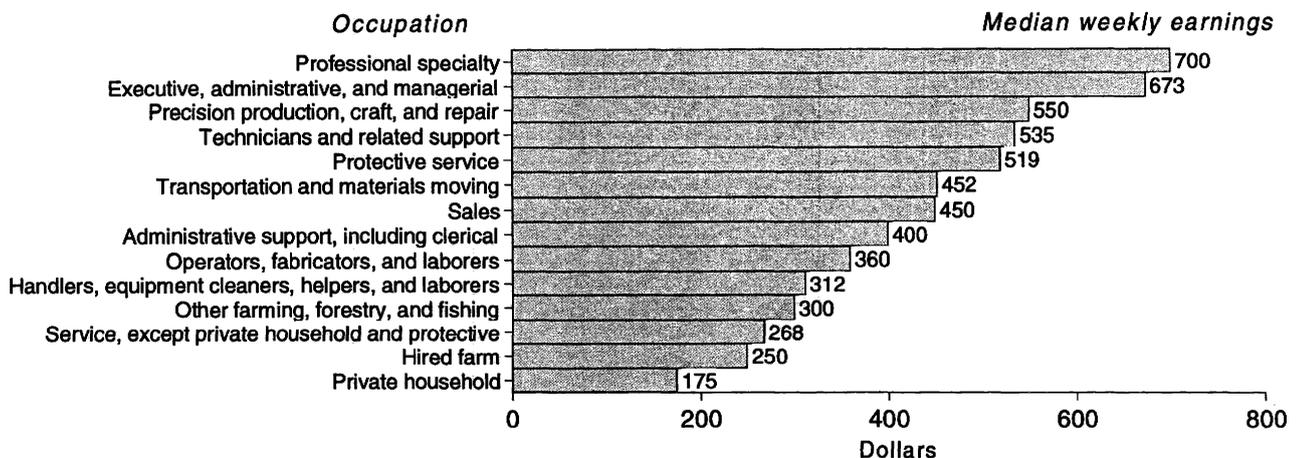
In addition to differences in weekly earnings between hired farmworkers and other workers, there were differences in weekly earnings between groups within the hired farm work force (table 14). Hired farmworkers who were male, white, older, and better educated worked in livestock production, and those who were in the West had higher weekly earnings. The median hours worked per week for all groups of workers shown in table 14 was 40, except for females (35 hours) and workers under 20 years of age (20 hours). The lower median weekly hours for females and workers under 20 at least partially explains their having lower median weekly earnings.

Earnings for most wage and salary workers are a major part of family income. People who were primarily employed as hired farmworkers had lower annual family incomes in 1994 than did all wage and salary workers (table 15).<sup>9</sup> Half of the hired farmworkers had family incomes of less than \$20,000. In comparison, only 20 percent of all wage and salary workers had family incomes less than \$20,000 and nearly 58 percent had family incomes of \$30,000 and above. The lower family income of hired farmworkers reflects lower earnings from both farm and nonfarm work, as well as from other sources of income.

<sup>9</sup>The CPS defines income as combined of all family members during the last 12 months. Includes money from jobs; net income from businesses, farms or rents; pensions, dividends, interest, social security payments; and any other money income received by family members who are 15 years of age or older.

Figure 13

**Median weekly earnings of full-time wage and salary workers by occupation, 1994**



Source: Calculated by ERS using data from the 1994 Current Population Survey earnings microdata file.

**Table 14—Median weekly earnings of hired farmworkers by demographic and employment characteristics, 1994**

Characteristics	Hired farmworkers	Median weekly earnings	Characteristics	Hired farmworkers	Median weekly earnings
	Thousands	Dollars		Thousands	Dollars
All hired farmworkers	779	238	Schooling completed (years): <sup>1</sup>		
			0-4	106	200
Sex:			5-8	175	231
Male	653	248	9-11	173	200
Female	126	180	12	202	270
			13 or more	123	300
Racial/ethnic group:			Industry:		
White	394	240	Crop production	405	231
Hispanic	326	235	Livestock production	307	240
Black and other	59	210	Agricultural services	67	231
Age: (years)			Farm production region:		
Less than 20	84	130	Northeast	46	... <sup>2</sup>
20-24	125	225	Midwest	140	240
25-34	223	250	South	310	210
35-44	164	250	West	283	265
45-54	105	262			
55 and older	78	228			

<sup>1</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

<sup>2</sup>Percentages not shown where base is less than 50,000.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes to survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Table 15—Family income of hired farmworkers and all wage and salary workers, 1994<sup>1</sup>**

Income	Hired farmworkers		All wage and salary workers	
	Thousands	Percent	Thousands	Percent
Totals	779	100.0	107,824	100.0
Less than \$10,000	153	19.6	7,283	6.8
\$10,000 to \$19,999	237	30.4	14,146	13.1
\$20,000 to \$29,999	152	19.6	17,166	15.9
\$30,000 to \$39,999	93	12.0	16,616	15.4
\$40,000 to \$49,999	36	4.6	12,521	11.6
\$50,000 or more	55	7.0	33,240	30.8
Did not report income	53	6.8	6,852	6.4

<sup>1</sup>Combined income of all family members during the last 12 months. Includes money from jobs; net income from businesses, farms or rents; pensions, dividends, interest, social security payments; and any other money income received by family members who are 15 years of age and older.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

## References

- Bowie, Chester E., Lawrence S. Cahoon, and Elizabeth A. Martin. "Evaluating Change in the Estimates." *Monthly Labor Review*. U.S. Dept. Labor, Bureau of Labor Statistics. Vol. 116, No. 9. September 1993.
- Bregger, John E. And Cathryn S. Dippo. "Why Is It Necessary to Change?" *Monthly Labor Review*. U.S. Dept. Labor, Bureau of Labor Statistics. Vol. 116, No. 9. September 1993.
- Census of Agriculture, 1982, 1987, and 1992.*
- Delfico, Joseph F. *Farmworkers Face Gaps in Protection and Barriers to Benefits*. U.S. General Accounting Office. GAO-HRD-91-40. July 1991.
- Farm Labor*. U.S. Dept. Agr., National Agricultural Statistics Service. Various issues.
- Monthly Labor Review*. U.S. Dept. Labor, Bureau of Labor Statistics. Vol. 116, No. 9. September 1993.
- Oliveira, Victor J. *A Profile of Hired Farmworkers, 1990 Annual Averages*. AER-658. U.S. Dept. Agr., Econ. Res. Serv. Feb. 1992.
- Oliveira, Victor J., and Leslie A. Whitener. "Appendix B. Agricultural Labor: A Review of the Data." *Immigration Reform and U.S. Agriculture*. University of California, Division of Agriculture and Natural Resources. Pub. 3358. 1995.
- Polivka, Anne E., and Jennifer Rothgeb. "Redesigning the Questionnaire." *Monthly Labor Review*. U.S. Dept. Labor, Bureau of Labor Statistics. Vol. 116, No. 9. September 1993.
- Runyan, Jack L. *A Profile of Hired Farmworkers, 1992 Annual Averages*. AER- 693. U.S. Dept. Agr., Econ. Res. Serv. July 1994.
- U.S. Department of Labor. *Findings From the National Agricultural Workers Survey (NAWS) 1990*. Office of the Assistant Secretary for Policy. Res. Rpt. No. 1. 1991.
- Whitener, Leslie A. "The Agricultural Work Force: Patterns and Trends." *Papers and Proceedings of the Surgeon General's Conference on Agricultural Safety and Health*. U.S. Dept. Health and Human Services. April 1991.

**Appendix table 1—Demographic and earnings characteristics of hired farmworkers, 1990-1994**

Characteristics	Annual averages									
	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
	-----Thousands-----					-----Percent-----				
Total workers	886	884	848	803	779	100	100	100	100	100
Gender:										
Male	735	728	711	680	653	82.9	82.4	83.8	84.7	83.8
Female	151	156	137	123	126	17.1	17.6	16.2	15.3	16.2
Racial/ethnic group:										
White	540	533	506	462	394	61.0	60.3	59.7	57.5	50.5
Hispanic	260	251	260	270	326	29.4	28.3	30.7	33.6	41.9
Black and other	85	100	82	71	59	9.6	11.4	9.6	8.9	7.6
Age (years):										
Less than 20	144	128	122	112	84	16.2	14.4	14.5	14.0	10.7
20-24	135	114	113	106	125	15.3	13.0	13.3	13.2	16.1
25-34	251	256	246	235	223	28.4	28.9	9.0	29.3	28.5
35-44	170	180	175	175	164	19.2	20.3	20.6	21.8	21.1
45-54	90	95	96	97	105	10.2	10.8	11.3	12.1	13.5
55 and older	95	111	96	77	78	10.7	12.6	11.3	9.6	10.1
Median age	31	32	33	32	32	--	--	--	--	--
Marital status:										
Married	472	472	454	407	464	53.3	53.4	53.5	51.8	59.5
Widowed, divorced, or separated	79	99	86	76	69	8.9	11.2	10.1	9.5	8.9
Never married	335	313	308	310	246	37.8	35.4	36.4	38.6	31.6
Schooling completed: <sup>1</sup>										
0-4 years	98	101	119	132	106	11.1	11.5	14.1	16.4	13.5
5-8 years	191	187	135	140	175	21.6	21.2	16.0	17.4	22.5
9-11 years	202	200	229	175	173	22.8	22.6	27.0	21.8	22.2
12 years	278	274	228	217	202	31.4	31.0	26.9	27.0	26.0
13 years or more	116	122	136	139	123	13.1	13.7	16.0	17.4	15.8
Weekly earnings:										
Less than \$100	126	111	102	88	78	14.2	12.6	12.0	10.9	10.1
\$100-\$199	251	234	259	210	188	28.4	26.5	30.5	26.2	24.1
\$200-\$299	295	301	261	289	268	33.4	34.0	30.8	36.0	34.4
\$300-\$399	118	145	127	125	146	13.4	16.4	15.0	15.6	18.8
\$400-\$499	46	48	47	45	58	5.2	5.4	5.5	5.6	7.4
\$500-\$599	23	24	28	24	22	2.4	2.7	3.3	3.0	2.8
\$600 and over	27	21	24	22	19	3.0	2.4	2.8	2.7	2.4
Median earnings	\$200	\$210	\$200	\$220	\$238	--	--	--	--	--

<sup>1</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

**Appendix table 2—Demographic and earnings characteristics of all wage and salary workers, 1990-1994**

Characteristics	Annual averages									
	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
	-----Thousands-----					-----Percent-----				
Total workers	104,351	103,166	104,054	105,407	107,824	100	100	100	100	100
Gender:										
Male	55,043	54,128	54,317	54,954	56,465	52.7	52.5	52.2	52.1	52.4
Female	49,308	49,038	49,737	50,453	51,359	47.3	47.5	47.8	47.9	47.6
Racial/ethnic group:										
White	81,695	80,522	81,032	81,907	82,240	78.3	78.1	77.9	77.7	76.3
Hispanic	8,197	8,207	8,356	8,598	10,014	7.9	8.0	8.0	8.2	9.3
Black and other	14,459	14,437	14,666	14,902	15,570	13.8	13.9	14.1	14.1	14.4
Age (years):										
Less than 20	6,571	5,886	5,626	5,744	5,874	6.3	5.7	5.4	5.4	5.4
20-24	12,212	11,834	11,785	11,788	12,309	11.7	11.5	11.3	11.2	11.4
25-34	30,972	30,106	29,870	29,477	29,575	29.7	29.2	28.7	28.0	27.4
35-44	26,411	27,056	27,525	28,144	29,108	25.3	26.2	26.5	26.7	27.0
45-54	16,558	16,863	17,834	18,885	19,642	15.9	16.3	17.1	17.9	18.3
55 and older	11,628	11,421	11,414	11,367	11,316	11.1	11.1	11.0	10.8	10.5
Median age	35	36	36	36	36	--	--	--	--	--
Marital status:										
Married	60,706	60,360	60,174	61,378	62,663	58.2	58.5	58.3	58.2	58.1
Widowed, divorced, or separated	14,925	14,178	15,088	15,421	15,587	14.3	14.3	15.4	14.6	14.5
Never married	28,720	28,087	28,252	28,608	29,574	27.5	27.2	27.2	27.1	27.4
Schooling completed: <sup>1</sup>										
0-4 years	1,031	956	892	861	848	1.0	0.9	0.9	0.8	0.8
5-8 years	4,141	3,844	3,166	3,006	3,024	4.0	3.7	3.0	2.8	2.8
9-11 years	11,222	10,561	10,525	10,278	10,193	10.8	10.2	10.1	9.8	9.5
12 years	41,166	40,385	36,431	36,246	35,959	39.4	39.2	35.0	34.4	33.3
13 years or more	46,792	47,410	53,040	55,016	57,800	44.8	46.0	51.0	52.2	53.6
Weekly earnings:										
Less than \$100	7,628	7,066	6,762	6,562	7,157	7.3	6.8	6.5	6.2	6.6
\$100-\$199	13,911	13,121	12,996	12,355	12,662	13.3	12.7	12.5	11.7	11.7
\$200-\$299	19,109	18,250	17,871	17,858	17,786	18.3	17.7	17.2	16.9	16.5
\$300-\$399	16,195	15,867	15,695	15,255	15,470	15.5	15.4	15.1	14.5	14.3
\$400-\$499	13,453	13,080	3,389	13,596	13,673	12.9	12.7	12.9	12.9	12.7
\$500-\$599	9,924	10,159	9,890	10,172	10,346	9.5	9.8	9.5	9.6	9.7
\$600 and over	24,131	25,623	27,451	29,609	30,730	23.1	24.8	26.4	28.1	28.5
Median earnings	\$360	\$370	\$380	\$400	\$400	--	--	--	--	--

<sup>1</sup>Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

Note: Data for 1994 are not directly comparable with data for 1993 and earlier years because of changes in survey design.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.