

**Profile of Hired Farmworkers, 1998 Annual Averages.** By Jack L. Runyan.  
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## **Abstract**

An average of 875,000 persons 15 years of age and older did hired farmwork each week as their primary job in 1998. An additional 63,000 people did hired farmwork each week as their secondary job. Hired farmworkers were more likely than the typical U.S. wage and salary worker to be male, Hispanic, younger, less educated, never married, and not U.S. citizens. The West (42 percent) and South (31.4 percent) census regions accounted for almost three-fourths of the hired farmworkers. The rate of unemployment in the hired farm labor force (11.8 percent) was more than double that (4.5 percent) for all wage and salary workers. Hired farmworkers were also more likely to be paid less than the minimum wage, and to be low-wage workers. Consequently, their median weekly earnings continued to be much lower than those of all wage and salary workers. However, hired farmworkers' real median weekly earnings increased 4 percent between 1990 and 1998, while earnings for all wage and salary workers increased only 2 percent. This report examines regional and structural patterns of farm labor use, and demographic and employment characteristics of hired farmworkers, using data from the 1997 Census of Agriculture and the 1998 Current Population Survey (CPS) earnings microdata file.

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

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# Contents

|                                                                                                                    |    |
|--------------------------------------------------------------------------------------------------------------------|----|
| <b>Summary</b> .....                                                                                               | vi |
| <b>Introduction</b> .....                                                                                          | 1  |
| The Data .....                                                                                                     | 2  |
| <b>Structural and Regional Patterns of Farm Labor Use</b> .....                                                    | 4  |
| Structural Patterns of Labor Expenditures .....                                                                    | 4  |
| Regional Patterns of Labor Expenditures .....                                                                      | 4  |
| <b>Demographic Characteristics of the 1998 Hired Farmworkers</b> .....                                             | 11 |
| Gender, Age, and Marital Status .....                                                                              | 11 |
| Race/Ethnic Group .....                                                                                            | 11 |
| Citizenship Status .....                                                                                           | 11 |
| Education Completed .....                                                                                          | 12 |
| Unemployment .....                                                                                                 | 14 |
| Secondary Job Holders .....                                                                                        | 17 |
| <b>Part- and Full-Time Workers</b> .....                                                                           | 22 |
| <b>Geographic Distribution of Hired Farmworkers</b> .....                                                          | 25 |
| <b>Distribution of Hired Farmworkers by Establishment</b> .....                                                    | 27 |
| <b>Earnings Characteristics of Hired Farmworkers in 1998</b> .....                                                 | 29 |
| Minimum Wage .....                                                                                                 | 29 |
| Family Income .....                                                                                                | 32 |
| Low-Wage Workers .....                                                                                             | 34 |
| <b>References</b> .....                                                                                            | 38 |
| <b>Glossary</b> .....                                                                                              | 39 |
| <b>Appendix table 1</b> —Demographic and earnings characteristics of<br>hired farmworkers, 1990-98 .....           | 40 |
| <b>Appendix table 2</b> —Demographic and earnings characteristics of all<br>wage and salary workers, 1990-98 ..... | 41 |

## Tables

|                                                                                                                         |    |
|-------------------------------------------------------------------------------------------------------------------------|----|
| 1. Demographic characteristics of hired farmworkers and all wage and salary workers, 1998. ....                         | 12 |
| 2. Citizenship status of hired farmworkers and all wage and salary workers, 1998. ....                                  | 14 |
| 3. Demographic characteristics of foreign-born workers who were not citizens of the United States, 1998 .....           | 14 |
| 4. Education completed by hired farmworkers, by gender and racial/ethnic group, 1998 .....                              | 15 |
| 5. Demographic characteristics of the unemployed, 1998 .....                                                            | 18 |
| 6. Rates of unemployment among hired farmworkers, by demographic characteristic, 1998 .....                             | 19 |
| 7. Reasons for unemployment and duration of unemployment, 1998 .....                                                    | 20 |
| 8. Demographic characteristics of individuals reporting hired farmwork as their secondary job, 1998 .....               | 21 |
| 9. Demographic characteristics of part-time and full-time hired farmworkers and all wage and salary workers, 1998 ..... | 23 |
| 10. Reasons why part-time workers want to work part-time, 1998 .....                                                    | 24 |
| 11. Number of hired farmworkers by census region, 1990-1998 .....                                                       | 25 |
| 12. Demographic and earnings characteristics of hired farm workers, by census region, 1998 .....                        | 26 |
| 13. Number of hired farmworkers, by establishment, 1990-98 .....                                                        | 27 |
| 14. Demographic and earnings characteristics of hired farmworkers, by establishment, 1998 .....                         | 28 |
| 15. Weekly earnings of hired farmworkers and all wage and salary workers, 1998 .....                                    | 30 |
| 16. Median weekly earnings of hired farmworkers, by demographic and employment characteristics, 1998 .....              | 32 |
| 17. Demographic characteristics of hired farmworkers earning less than the minimum wage (\$5.15 an hour), 1998 .....    | 33 |
| 18. Family income of hired farmworkers and all wage and salary workers, 1998 .....                                      | 34 |
| 19. Demographic characteristics of low-wage hired farmworkers, compared with all hired farmworkers, 1998 .....          | 37 |

## Figures

|                                                                                                                       |    |
|-----------------------------------------------------------------------------------------------------------------------|----|
| 1. U.S. farm production expenses, 1997 .....                                                                          | 4  |
| 2. Labor's share of farm production expenses, 1997 .....                                                              | 5  |
| 3. Hired and contract labor expenditures, by value of agricultural<br>sales per farm, 1997 .....                      | 5  |
| 4. Hired labor expenditures per farm, by value of agricultural<br>sales, 1997 .....                                   | 6  |
| 5. Contract labor expenditures per farm, by value of agricultural<br>sales, 1997 .....                                | 6  |
| 6. Hired and contract labor expenditures, by size of farm, 1997 .....                                                 | 7  |
| 7. Hired labor expenditures per farm, by size of farm, 1997 .....                                                     | 7  |
| 8. Contract labor expenditures per farm, by size of farm, 1997 .....                                                  | 8  |
| 9. Hired and contract labor expenditures, by type of farm, 1997 .....                                                 | 8  |
| 10. Hired labor expenditures, by type of farm, 1997 .....                                                             | 9  |
| 11. Contract labor expenditures, by type of farm, 1997 .....                                                          | 9  |
| 12. Hired and contract labor expenses on farms, 1997 .....                                                            | 10 |
| 13. Annual average number of hired farmworkers, 15 years<br>and older, employed per week, 1990-98 .....               | 13 |
| 14. Annual average number of all wage and salary workers, 15 years<br>and older, employed per week, 1990-98 .....     | 13 |
| 15. Percent of workers completing less than 12 years of education,<br>by occupation, 1998 .....                       | 15 |
| 16. Rates of unemployment, by occupation, 1998 .....                                                                  | 16 |
| 17. Percent unemployment, hired farm labor force and all wage<br>and salary labor force, 1994-98 .....                | 16 |
| 18. Part-time workers, by occupation, 1998 .....                                                                      | 22 |
| 19. Median weekly earnings of all workers, by occupation, 1998 .....                                                  | 30 |
| 20. Median weekly earnings of full-time workers, by occupation,<br>1998 .....                                         | 31 |
| 21. Median weekly earnings of part-time workers, by occupation,<br>1998 .....                                         | 31 |
| 22. Percent of all wage and salary workers with family incomes<br>less than \$20,000, by occupation, 1998 .....       | 35 |
| 23. Percent of full-time wage and salary workers with family<br>incomes less than \$20,000, by occupation, 1998 ..... | 35 |

|                                                                                 |    |
|---------------------------------------------------------------------------------|----|
| 24. Percent of all workers who are low-wage, by occupation,<br>1998 .....       | 36 |
| 25. Percent of full-time workers who are low-wage, by occupation,<br>1998 ..... | 36 |

## Summary

Hired farmworkers are an important part of agricultural production, accounting for about 30 percent of all farmworkers. Although important to agriculture, hired farmworkers continue to be one of the most disadvantaged groups in the United States. Approximately 875,000 people 15 years and older worked as farmworkers as their primary job each week in 1998. Almost 19 percent were employed part-time (less than 35 hours per week), and over a third were not U.S. citizens. Hired farmworkers had one of the lowest median weekly earnings and one of the largest percentages (50 percent) of workers with family incomes less than \$20,000 in 1998. This report, using data from the 1997 Census of Agriculture and the 1998 Current Population Survey earnings microdata file, presents information on the patterns of farm labor use and the demographic and employment characteristics of hired farmworkers to help inform the policy debate about the effects of proposed and changing legislation on the Nation's farmworkers.

More specific findings of this study are:

- Hired farmworkers were more likely than all wage and salary workers to be male, Hispanic, younger, less educated, never married, and not U.S. citizens. About 57 percent of hired farmworkers completed less than the 12th grade, in contrast to 14 percent of all wage and salary workers.
- An additional 63,000 people were employed as farmworkers for their secondary job each week. Most of these workers were employed in agricultural services (establishments that provide workers to farm employers for a fee).
- Almost 19 percent of the hired farm workforce were employed part-time (less than 35 hours per week) in 1998. These part-time workers were more likely than full-time hired farmworkers to be female, white, younger, never married, and U.S. citizens. More than half were employed in livestock production.
- In 1998, about 75 percent of hired farmworkers were employed in the South and West. Only 7 percent were employed in the Northeast. The Midwest and Northeast reported a higher percentage of white and lower percentage of Hispanic laborers. The South reported more black and other workers, and the West reported more Hispanic farmworkers than other regions.
- Over a third (34 percent) of farmworkers were not U.S. citizens. Almost 95 percent of these workers were Hispanic, and nearly three-quarters were employed in crop production and located in the West region.
- Males, white and black and other workers, workers 25–55 years old, workers with a 12th grade or higher education, and those employed in livestock all had higher median weekly earnings than all hired farmworkers. Hired farmworkers in the West region also had higher median weekly earnings.

- Hired farmworkers continue to experience lower wages and higher unemployment than all wage and salary workers. In 1998, the median weekly earnings of hired farmworkers were \$260, an increase of 4 percent (after adjusting for inflation) since 1990. During the same time period, median weekly earnings of all U.S. wage and salary workers increased 2 percent in real terms. Half of the hired farmworkers had family incomes amounting to less than \$20,000 in 1998. Unemployment among the hired farm labor force was 11.8 percent, compared with 4.5 percent for the total wage and salary labor force.

# Profile of Hired Farmworkers, 1998 Annual Averages

Jack L. Runyan

## Introduction

Hired farmworkers, a small part of U.S. wage and salary workers (less than 1 percent in 1998), are an important part of agricultural production, accounting for about 30 percent of farmworkers. Farm operators and unpaid family workers comprise the other 70 percent (U.S. Department of Agriculture, *Farm Labor*, 1998).<sup>1</sup> Although important to agriculture, hired farmworkers continue to be one of the most disadvantaged groups in the United States, experiencing low wages, seasonal employment, weak attachment to the labor force, and limited nonfarm employment opportunities.

The hired farmworker market has some characteristics that, when taken together, make it unique. Some of these characteristics are a high percentage of migrant laborers, undocumented workers, and labor turnover. These characteristics also often impact farming communities by causing an influx of large numbers of transient workers who do not fit neatly into the ethnic, cultural, education, language, and wealth makeup of the community (Denton, 1999; Martin, 1998; and Mines and Alarcon, 1999).

Some agricultural industries, such as fruit and vegetable production, depend on sizeable numbers of migrant farmworkers to harvest crops and perform various tasks during the growing season (Emerson and Roka, 1999; and Thilmany, 1999). Migrant farmworkers average about 12 percent of all U.S. hired farmworkers, but may reach up to 75 percent in some areas (citrus and vegetable harvesting in Florida) (Emerson and Roka, 1999; and U.S. Department of Agriculture, *Farm Labor*, 1999). The availability of an adequate number of seasonal workers who migrate has become

an issue of increasing concern. Some members of the U.S. Congress have introduced legislation in the past 3 years to create new or to improve the existing guest workers programs (H2-A) that allow U.S. farm employers who qualify to hire alien workers for temporary employment.

Undocumented workers are non-U.S. residents who do not have official permission to work in the United States. It is nearly impossible to say how many undocumented workers are employed as hired farmworkers in the United States; estimates run from 30 to 70 percent of the hired farmworkers in some areas and in some crops (Mason, 1998; and Thilmany, 1999). On the surface, a work force with a high percentage of undocumented workers would appear to be unstable, but a constant stream of these workers may give a false sense of stability. There are many reports of these workers not being offered the same legal protections as documented workers and U.S. citizens.

Many hired farmworkers do not speak English (one-third are noncitizens, of which about 95 percent are Hispanic) and have less than a high school education (Martin, 1998). Lack of language skills and education limits these workers in their ability to obtain alternative employment to supplement their income or to move out of hired farm labor. When a large percentage of a work force has limited employment alternatives and there appears to be a ready supply of undocumented workers to fill vacancies, labor shortages (at least nationwide) appear remote and employers have little incentive to increase wages or adopt labor-saving technologies. According to Mines and Alarcon (1999) and Thilmany (1999), many employers have refrained from altering production enterprises or practices due to a lack of concern about labor shortages.

U.S. labor-intensive farming is becoming vulnerable to international competition (Mines and Alarcon, 1999).

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

Many competing countries pay substantially lower wages and have less stringent health and safety standards for both workers and products. That being the case, operators of labor-intensive farm enterprises will need to adjust their practices to remain competitive.

This report presents information on the patterns of farm labor use and the demographic and employment characteristics of hired farmworkers to help inform the policy debate about the effects of proposed and changing legislation on the Nation's farmworkers.

## The Data

Currently, no single source of data provides details necessary to understand issues related to changes in the supply, demand, wages, earnings, employee benefits, and characteristics of farmworkers on both local and national levels (Oliveira and Whitener, 1995).

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

The Census of Agriculture is conducted by the National Agricultural Statistics Service, U.S. Department of Agriculture, every 5 years, for years ending in 2 and 7. It offers the most complete geo-

graphic 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 type and size of farm. The CPS earnings file is based on 12 months of data, on the number of people who did hired farmwork during a 1-week period each month. 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" used in earlier years (U.S. Department of Labor, 1993, p. 2). 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. The changes in the CPS did not significantly change the estimated number of hired farmworkers, but did increase the estimated percentage of Hispanics in the hired farm workforce.

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<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 one.

## About the Data

Data from two sources were used for this analysis. One was 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 National Agricultural Statistics Service, 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 for the 1997 Census generated 1.7 million useable questionnaires. After adjusting for nonrespondents, survey data were expanded to the estimated 1.9 million farms in the United States. To reduce respondent burden, some questions were asked of a sample of farms. Data on hired labor and contract labor expenditures were collected from a sample of about 501,000 farm operators in 1997.

**Limitations:** The Census data on hired workers refer to all hired persons on the farm, including bookkeepers, secretaries, and mechanics who are generally considered not 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 population. (Participation in the survey is voluntary, and there are no penalties for not answering questions.)

Each month, about 50,000 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 monthly visits, trained enumerators complete a questionnaire for each household member age 15 and older. Questions focus on each household member's labor force activity during the survey week, the calendar week containing the 12th day of the month. Information from this sample 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 about weekly hours worked and earnings.

The 1998 CPS earnings microdata file used in this report consists of all records from the monthly quarter-samples of CPS households that were asked the additional questions during 1998. The data file contained information on almost 404,250 people, including more than 1,235 who were employed as hired farmworkers. Data comparisons in the analysis are based on differences that are significant at the 95-percent or higher level of confidence.

**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 nonfarm job than at their farm job would not be included in the primary employment count as hired farmworkers. These workers would be counted in 1998 as having hired farmwork as their secondary employment.

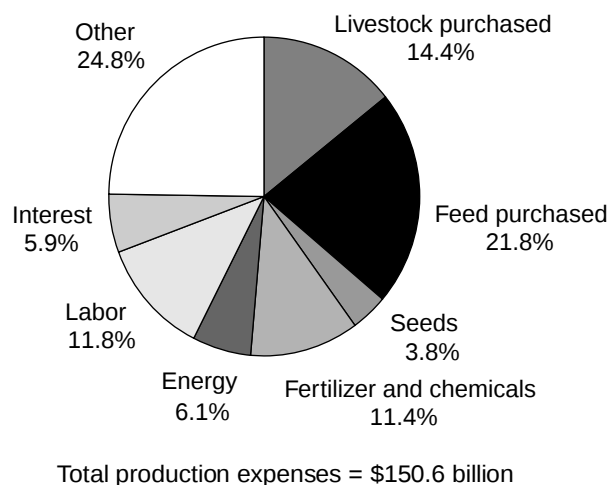
The CPS may undercount Hispanics in the hired farm workforce. Because the CPS is based on a survey of households, it may undercount farmworkers living in nontraditional living quarters, many of whom are likely to be Hispanic. In addition, undocumented foreign workers may, because of their illegal status,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

For more information on the survey and its data, see the U.S. Department of Labor's *Employment and Earnings*.

## Structural and Regional Patterns of Farm Labor Use

Structural and regional patterns of farm labor use can be determined from Census of Agriculture data. Expenditures for hired and contract workers are often used as indicators of farm labor use. In 1997, hired and contract labor expenditures amounted to \$17.8 billion, or 12 percent of farm production expenditures (fig. 1) (U.S. Department of Agriculture, 1997 Census of Agriculture). The proportion of total production expenditures accounted for by hired and contract labor in 1997 ranged from a low of 4 percent for poultry farms to a high of 44 percent for the more labor-intensive greenhouse, nursery, and floriculture farms (fig. 2). Four types of farms (tobacco, vegetable and melon, fruit and tree nut, and greenhouse, nursery, and floriculture) had higher than the 20-percent average for manufacturing, but less than the 70- to 80-percent share of costs generally found in many service industries (Martin, 1998). Compared with 1987, expenditures for hired and contract labor (in 1998 dollars) decreased about 1 percent, while total production costs declined by 1.5 percent. Thus, labor expenditures as a percentage of total farm production expenditures was unchanged.

Figure 1  
**U.S. farm production expenses, 1997**



Source: Economic Research Service, compiled from the 1997 Census of Agriculture.

### Structural Patterns of Labor Expenditures

Structural patterns of farm labor use (as measured by labor expenditures) are determined by the market value of agricultural products sold (value of sales), size of farm (acreage), and type of farm (oilseed and grains, dairy cattle and production, etc.).

#### Value of Sales

Employment of hired and contract workers was concentrated on farms producing higher values of products sold. Farms with \$500,000 or more in sales accounted for about 70 percent of total labor expenditures (70 percent of hired and 74 percent of contract labor expenditures) (fig. 3). These farms also had significantly higher per farm expenditures for hired and contract farmworkers (figs. 4 and 5).

#### Size of Farm

Farms with 1,000 or more acres accounted for 48 percent of hired and contract farm labor expenditures (42 percent of hired and 67 percent of contract labor expenditures) (fig. 6). These bigger farms also had much higher hired and contract labor expenditures per farm than other farms (figs. 7 and 8).

#### Type of Farm

Vegetable and melon, fruit and tree nut, and greenhouse, nursery, and floriculture farms accounted for 51 percent of hired and contract farm labor expenditures (fig. 9). These farms also had the highest average hired and contract labor expenditures per farm (figs. 10 and 11).

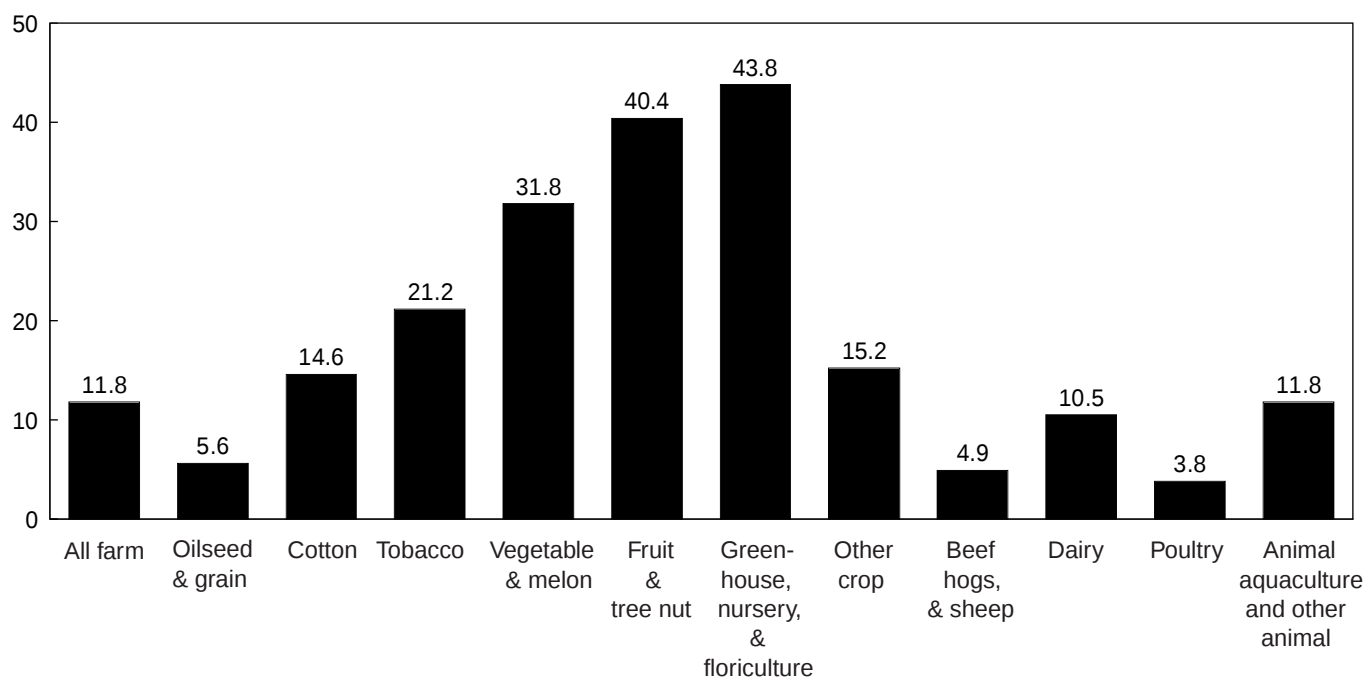
### Regional Patterns of Labor Expenditures

Hired and contract labor expenditures ranged from about \$5 million in Alaska to about \$5 billion in California in 1997 (fig. 12). Labor use is concentrated in a few States. Six States—California, Florida, North Carolina, Oregon, Texas, and Washington—accounted for about 50 percent of all farm labor expenditures in 1997 (fig. 12). These States account for a large percentage of the labor-intensive crops produced in the United States.

Figure 2

# **Labor's share of farm production expenses, 1997**

Percent

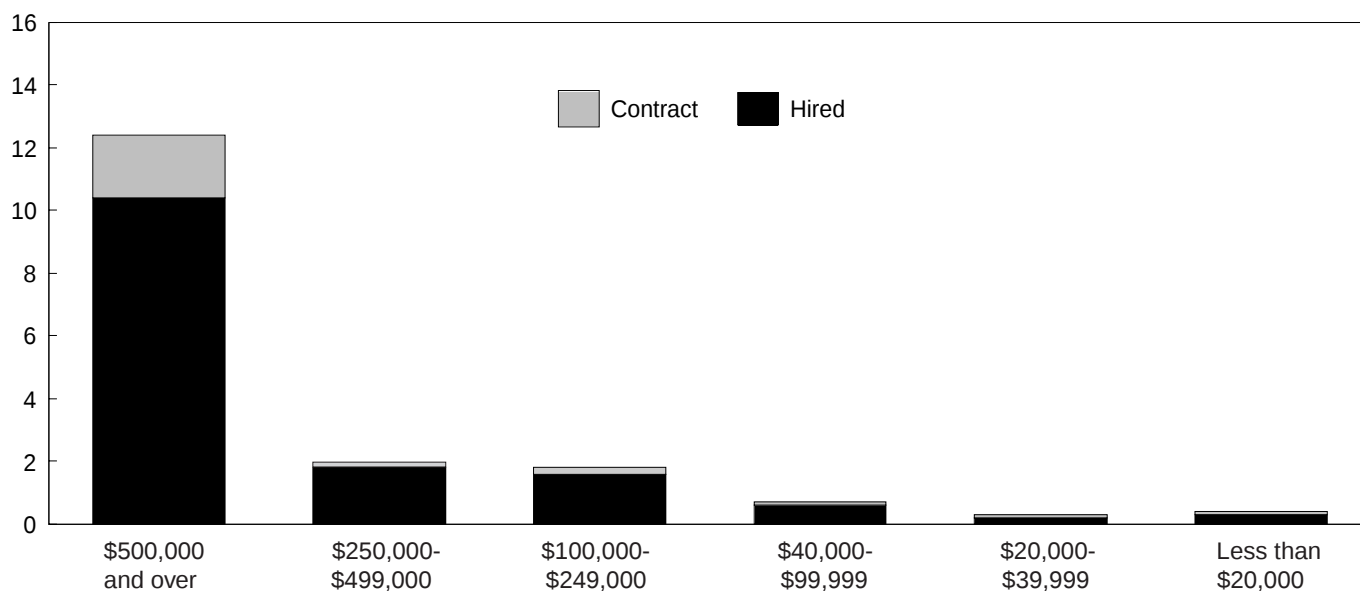


Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 3

# **Hired and contract labor expenditures, by value of agricultural sales per farm, 1997**

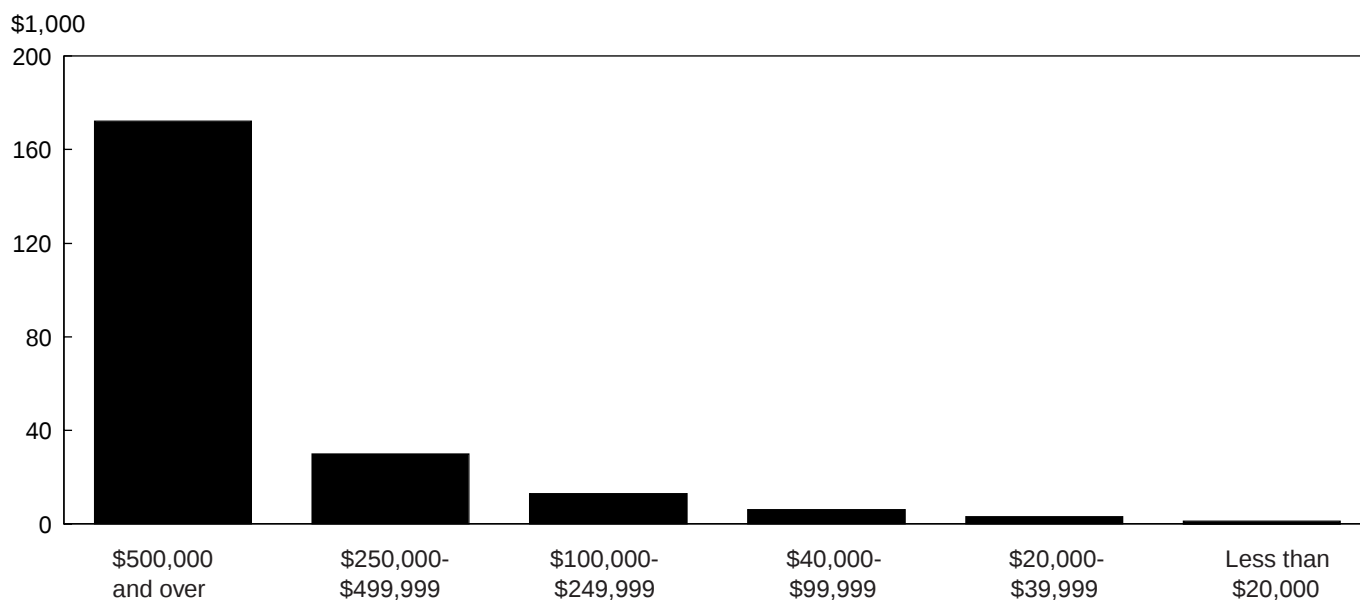
\$ Billions



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 4

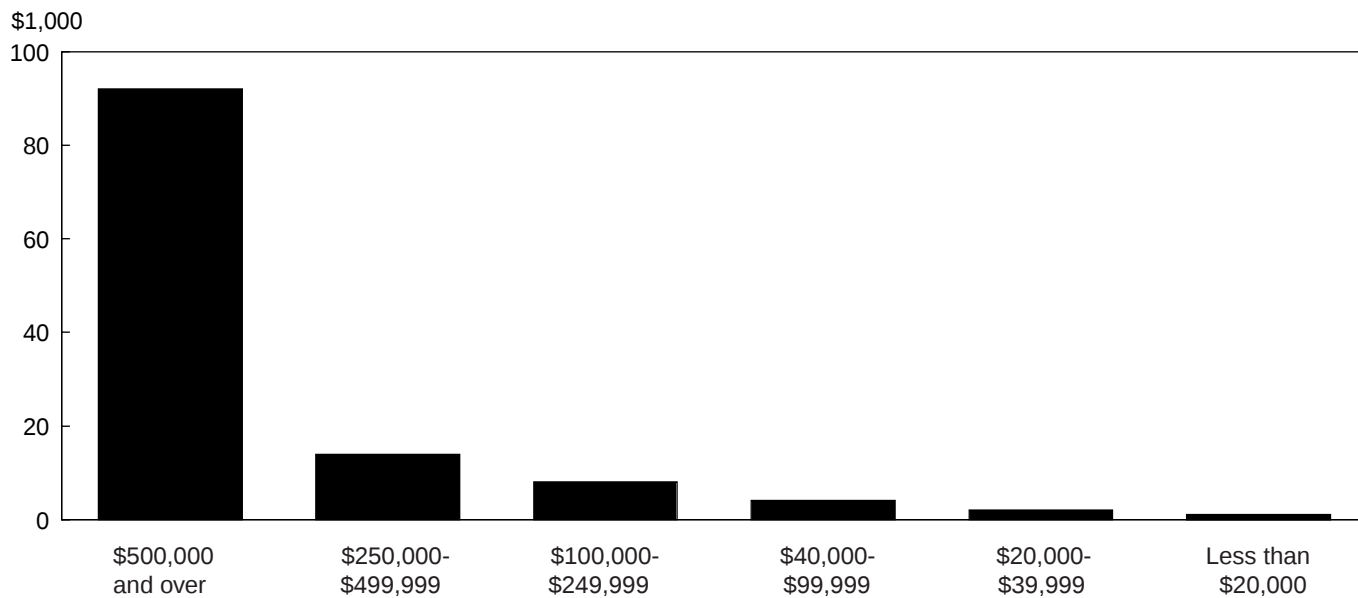
**Hired labor expenditures per farm, by value of agricultural sales, 1997**



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 5

**Contract labor expenditures per farm, by value of agricultural sales, 1997**

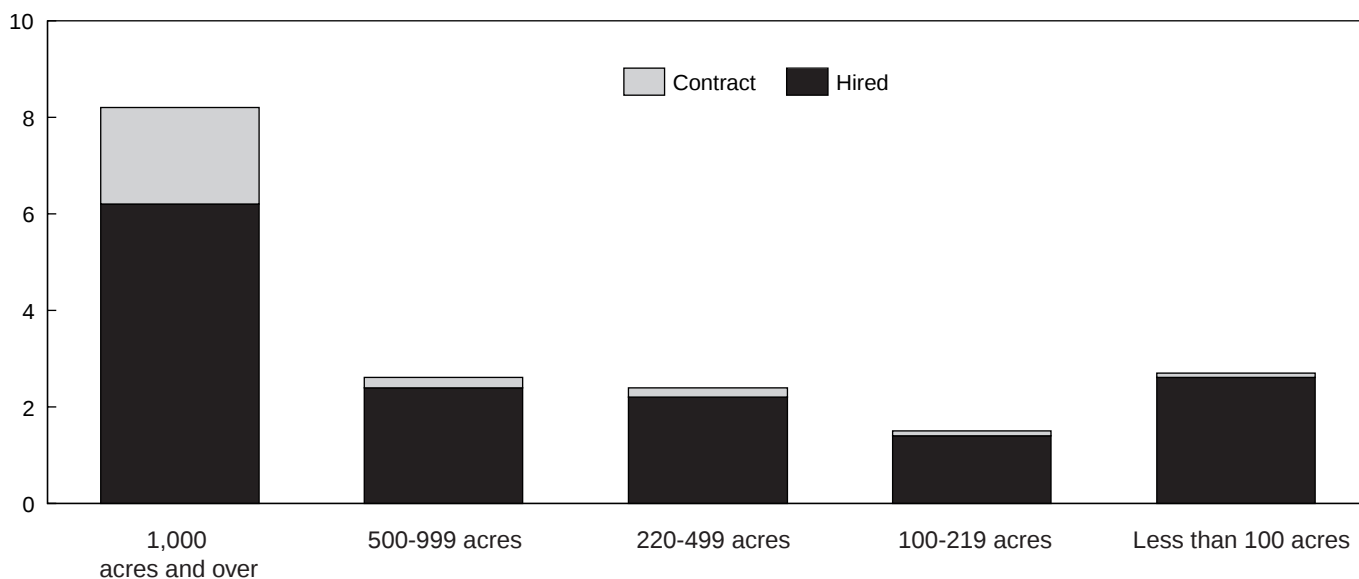


Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 6

**Hired and contract labor expenditures, by size of farm, 1997**

\$ Billions

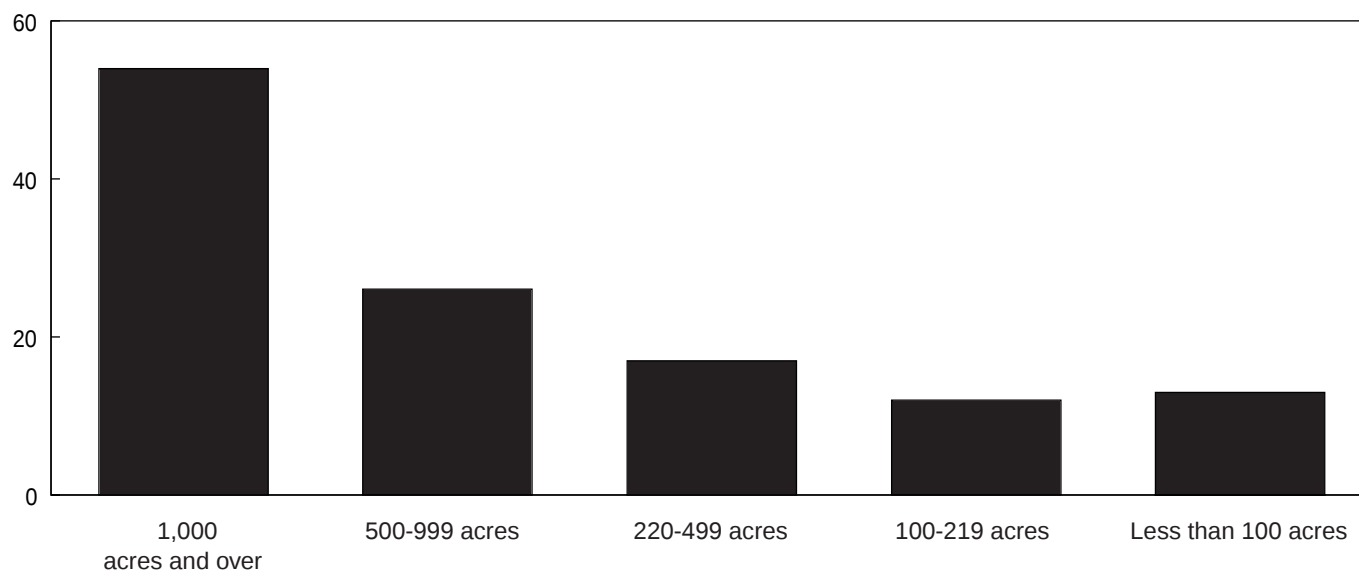


Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 7

**Hired labor expenditures per farm, by size of farm, 1997**

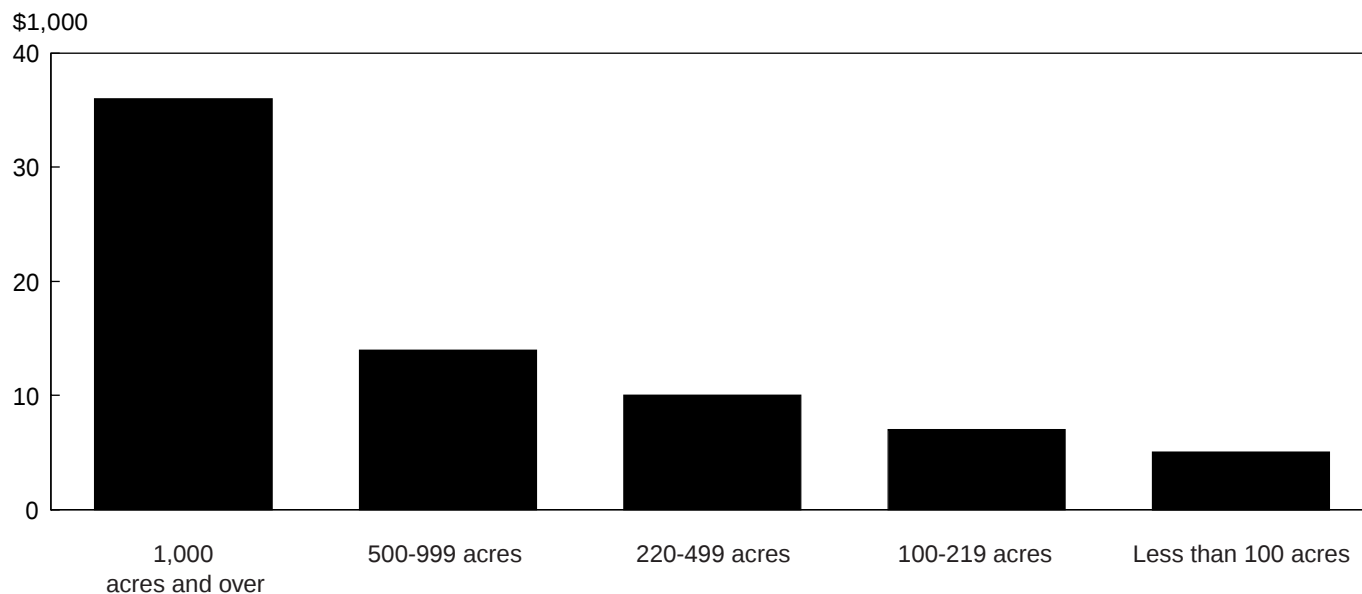
\$1,000



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 8

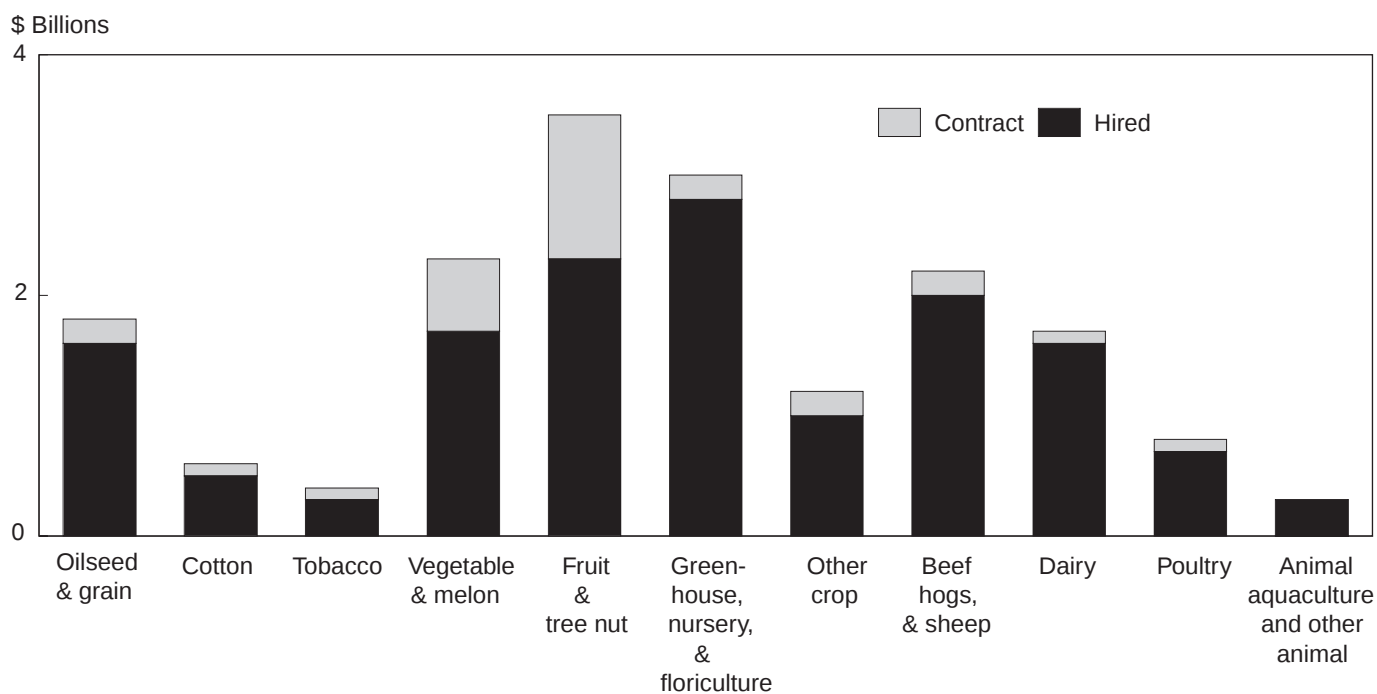
**Contract labor expenditures per farm, by size of farm, 1997**



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

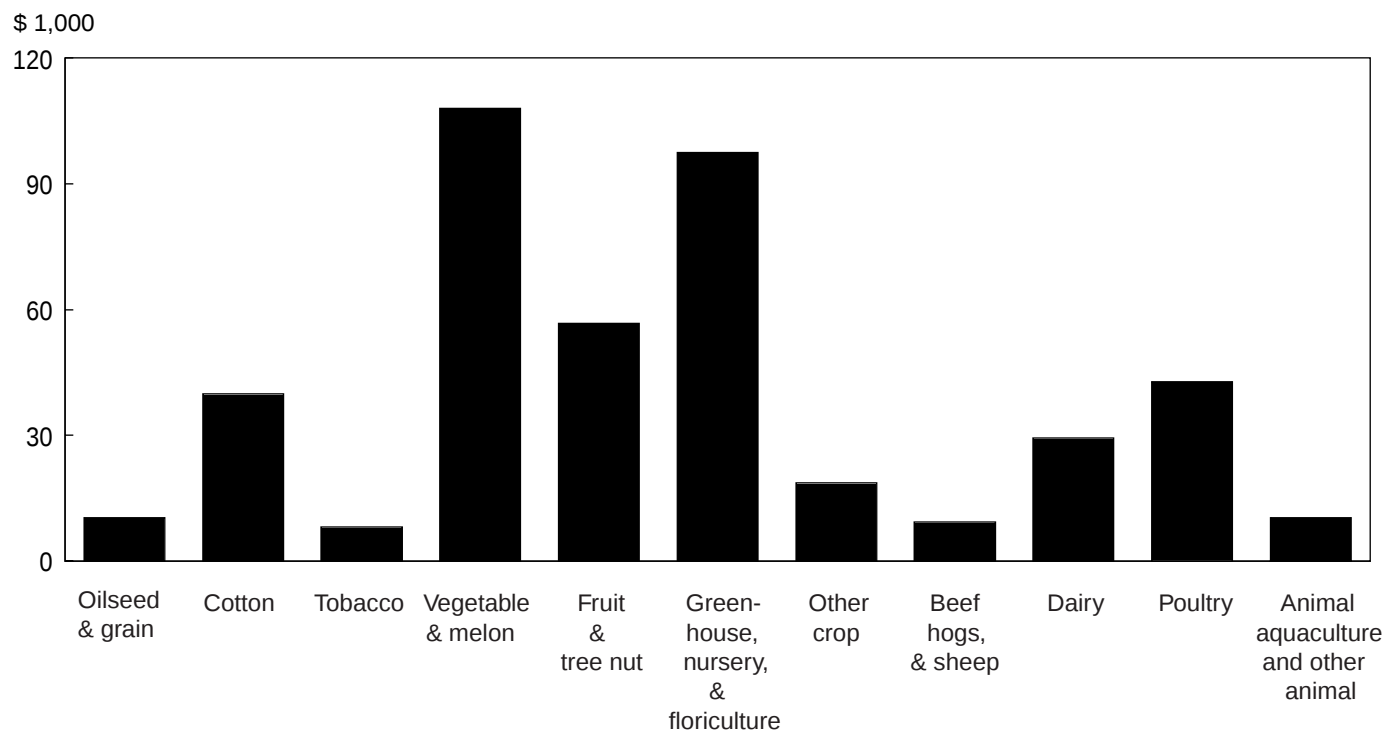
Figure 9

**Hired and contract labor expenditures, by type of farm, 1997**



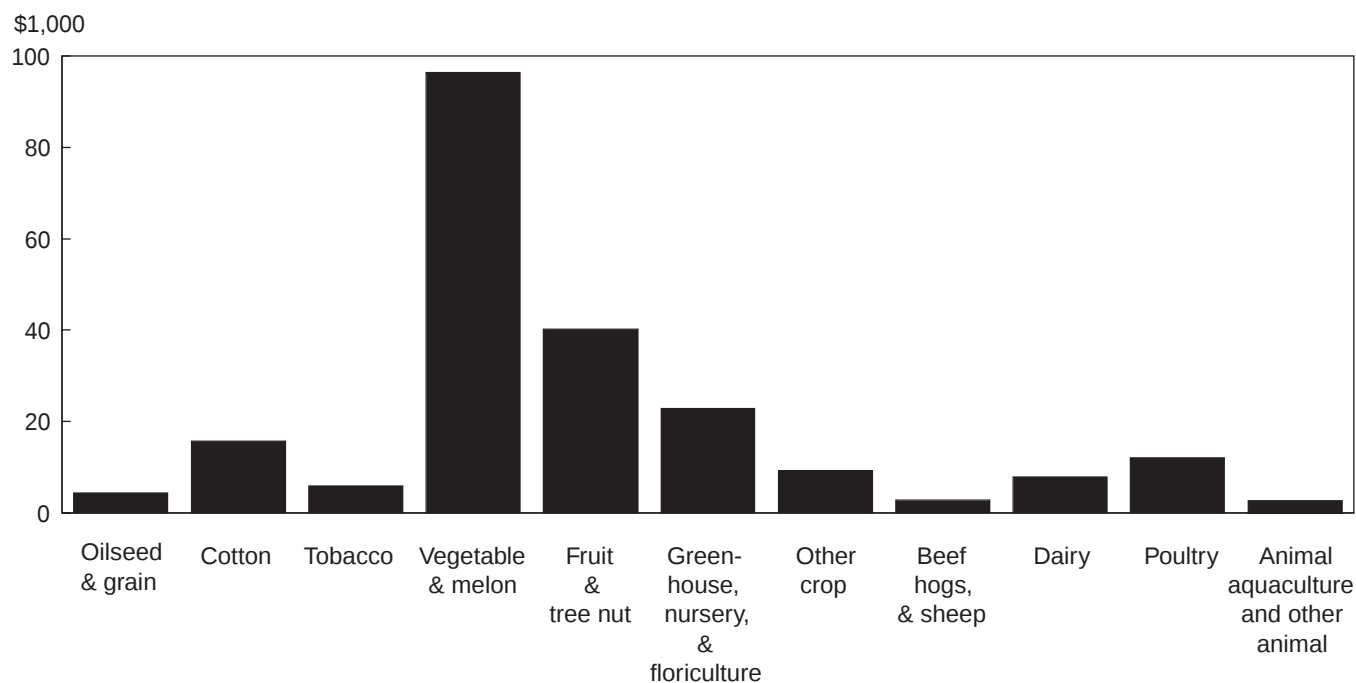
Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 10  
**Hired labor expenditures, by type of farm, 1997**



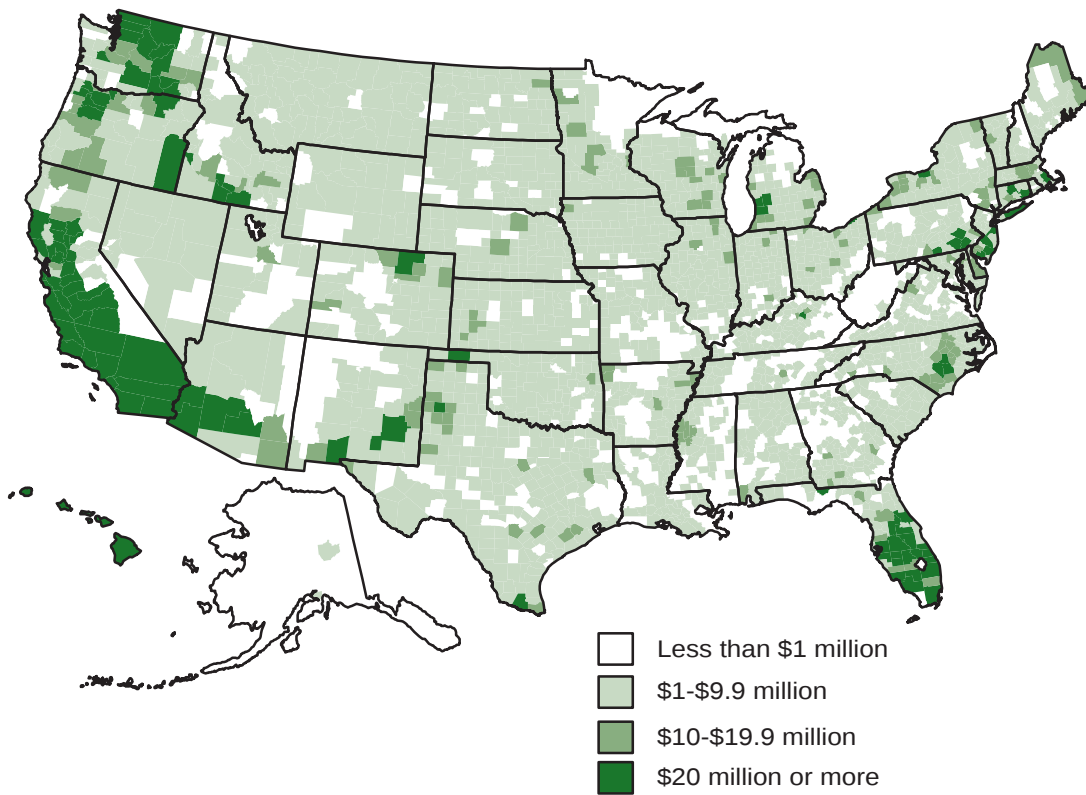
Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 11  
**Contract labor expenditures, by type of farm, 1997**



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

Figure 12  
**Hired and contract labor expenses on farms, 1997**



Source: Calculated by ERS using data from the 1997 Census of Agriculture.

## Demographic Characteristics of the 1998 Hired Farmworkers

An average of about 117 million people aged 15 and older were employed per week at wage and salary jobs in the United States in 1998 (table 1), according to the Current Population Survey. Of these, 875,000 persons (less than 1 percent) identified “hired farmwork” (that is, farmwork for cash wages or salary) as their primary employment. Hired farmworkers include people paid to manage farms for employers (8 percent), supervisors of farmworkers (4 percent), and farm and nursery workers (88 percent). The group includes those hired directly by the farmer and those employed by farm labor contractors.

While the annual average number of people working per week as hired farmworkers has fluctuated slightly from year to year over the last decade, these changes for the most part have not been statistically different. The number of hired farmworkers stabilized between 1990 and 1998 at 800,000 to 900,000 (fig. 13 and app. table 1). In contrast, the average number of all wage and salary workers (including hired farmworkers) has consistently increased since 1991 (fig. 14 and app. table 2).

Hired farmworkers’ demographic characteristics differ from those of other wage and salary workers. Hired farmworkers in 1998 were younger and less educated than all wage and salary workers and were more likely to be male, Hispanic, and never married. Historical information on hired farmworkers and all wage and salary workers (1990-98) is shown in appendix tables 1 and 2.

### Gender, Age, and Marital Status

Males accounted for about 84 percent of the hired farmworkers and about 52 percent of all wage and salary workers in 1998 (table 1). These percentages have remained constant in recent years (app. tables 1 and 2).

Hired farmworkers were younger than all wage and salary workers in 1998, as they have been throughout the 1990’s (table 1 and app. tables 1 and 2). More than half (54 percent) of the hired farmworkers were under 35 years of age, compared with 42 percent of all wage and salary workers. Hired farmworkers were more than twice as likely as all workers to be under 20 years of age.

More hired farmworkers (39 percent) than all wage and salary workers (29 percent) had never been married, and fewer hired farmworkers had been married or widowed, divorced, or separated (table 1). The differences in marital status may be because hired farmworkers are younger than other wage and salary workers.

### Racial/Ethnic Group

Almost 42 percent of hired farmworkers were Hispanic in 1998, compared with almost 11 percent of all wage and salary workers (table 1). With the exception of 1996 when the numbers increased, the percentage of hired farmworkers who are Hispanic has not changed significantly since 1994 (app. table 1). However, the percentage of all wage and salary workers who are Hispanic did change significantly between 1994 and 1996 (app. table 2). The large increase in the percent of Hispanic workers in both workforces 1990-94 compared with 1994-98 is probably due to the redesign of the CPS to capture data from more Hispanic households, among other reasons.

Hired farmworkers are less likely to be white non-Hispanic and black and other non-Hispanic than all wage and salary workers (table 1). Both of these racial/ethnic groups have maintained their share of the hired farmwork force since 1994, with the exception of an increase in white workers in 1996 (app. table 2). In comparison, the percentage of all white wage and salary workers decreased steadily and the percentage who were black and other has increased almost steadily every year since 1994 (app. table 2).

### Citizenship Status

About 62 percent of hired farmworkers in 1998 were born in the United States, but 34 percent were foreign-born and not U.S. citizens (table 2). The percentage of U.S.-born workers in 1998 declined since 1996, while the percentage of foreign-born increased (Runyan, 1996). In comparison with all wage and salary workers, greater proportions of hired farmworkers were foreign-born noncitizens, and in 1998, 7 percent of all wage and salary workers were foreign-born noncitizens.

Hired farmworkers who are not U.S. citizens are more likely than all hired farmworkers to be Hispanic, less educated and located in the West (table 3). They are

**Table 1—Demographic characteristics of hired farmworkers and all wage and salary workers, 1998**

| Characteristics                    | Annual averages   |                |                             |                |
|------------------------------------|-------------------|----------------|-----------------------------|----------------|
|                                    | Hired farmworkers |                | All wage and salary workers |                |
|                                    | <i>Thousands</i>  | <i>Percent</i> | <i>Thousands</i>            | <i>Percent</i> |
| All                                | 875               | 100            | 116,882                     | 100            |
| Gender:                            |                   |                |                             |                |
| Male                               | 733               | 83.8*          | 61,031                      | 52.2           |
| Female                             | 142               | 16.2*          | 55,851                      | 47.8           |
| Racial/ethnic group:               |                   |                |                             |                |
| White                              | 458               | 52.4*          | 85,830                      | 73.4           |
| Hispanic                           | 366               | 41.8*          | 12,397                      | 10.6           |
| Black and others                   | 51                | 5.8*           | 18,655                      | 16.0           |
| Age (years):                       |                   |                |                             |                |
| Less than 20                       | 133               | 15.2*          | 7,327                       | 6.3            |
| 20-24                              | 116               | 13.3*          | 12,216                      | 10.5           |
| 25-34                              | 224               | 25.6           | 29,059                      | 24.9           |
| 35-44                              | 185               | 21.1*          | 31,797                      | 27.2           |
| 45-54                              | 122               | 14.0*          | 23,519                      | 20.1           |
| 55 and over                        | 95                | 10.8           | 12,964                      | 11.1           |
| Median age                         |                   | 33*            |                             | 38             |
| Marital status:                    |                   |                |                             |                |
| Married                            | 454               | 51.9*          | 65,896                      | 56.4           |
| Widowed, divorced,<br>or separated | 82                | 9.3*           | 17,195                      | 14.7           |
| Never married                      | 339               | 38.8*          | 33,791                      | 28.9           |
| Schooling completed:               |                   |                |                             |                |
| 0-4 years                          | 96                | 10.9*          | 910                         | 0.8            |
| 5-8 years                          | 184               | 21.1*          | 3,209                       | 2.7            |
| 9-11 years                         | 218               | 24.9*          | 11,913                      | 10.2           |
| 12 years <sup>1</sup>              | 232               | 26.5*          | 37,124                      | 31.8           |
| 13 or more years                   | 145               | 16.6*          | 63,726                      | 54.5           |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

also more likely than all hired farmworkers to be employed in crop production (table 3).

### Education Completed

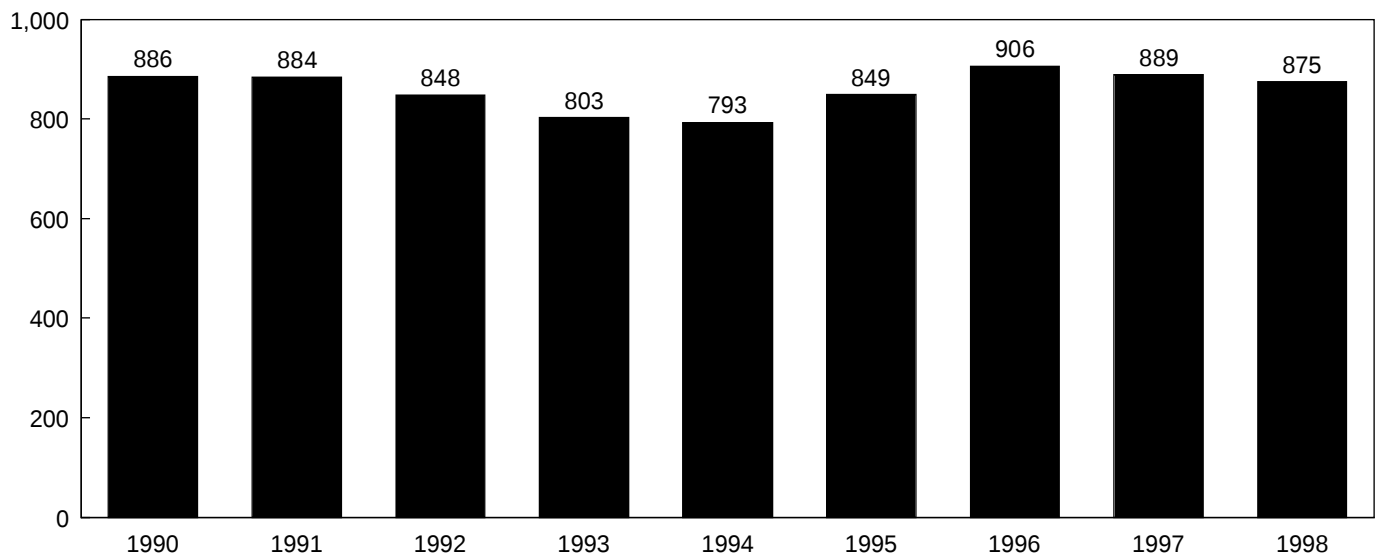
Hired farmworkers continue to be less educated than all wage and salary workers. In 1998, 32 percent of hired farmworkers had completed less than 8 years of education, and 57 percent had completed less than 12 years of education (table 1). In comparison, 4 percent of all wage and salary workers had completed less than 8 years of education, and 14 percent had completed less than 12 years of education (table 1). The educational attainment of hired farmworkers was considerably lower than for other major occupational groups (fig. 15).

Male farmworkers had lower educational levels than females (table 4). About 27 percent of women had completed education beyond high school compared with 15 percent of men in the hired farmworker force. Also, Hispanics were generally less educated. About 83 percent of the Hispanic hired farmworkers had completed less than 12 years of education, compared with 36 percent of white hired farmworkers and 56 percent of black and other hired farmworkers. Since Hispanics make up almost 95 percent of noncitizen hired farmworkers, this noncitizen group also had lower educational levels than other hired farmworkers (table 3).

Figure 13

**Annual average number of hired farmworkers, 15 years and older, employed per week, 1990-98**

Thousands

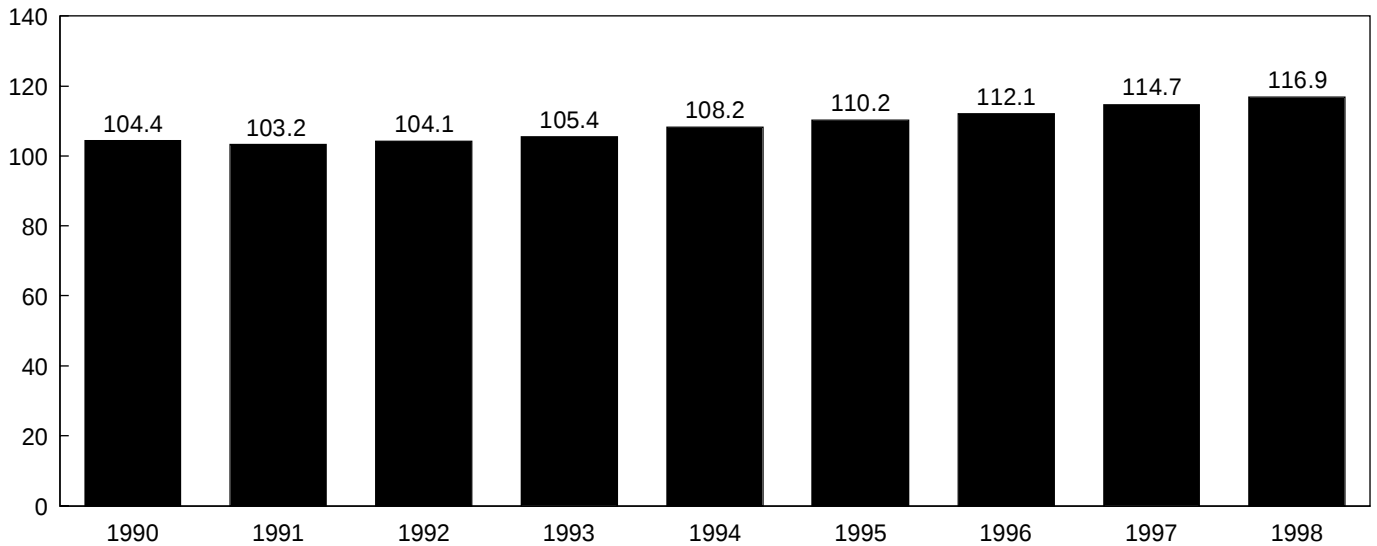


Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Figure 14

**Annual average number of all wage and salary workers, 15 years and older, employed per week, 1990-98**

Millions



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

**Table 2—Citizenship status of hired farmworkers and all wage and salary workers, 1998**

| Citizenship status                                | Annual averages   |                             |
|---------------------------------------------------|-------------------|-----------------------------|
|                                                   | Hired farmworkers | All wage and salary workers |
|                                                   | <i>Thousands</i>  |                             |
| Total                                             | 875               | 116,882                     |
|                                                   | <i>Percent</i>    |                             |
| Total                                             | 100               | 100                         |
| Native, born in the United States                 | 61.9*             | 87                          |
| Native, born in Puerto Rico or U.S. outlying area | .2                | 5                           |
| Native, born abroad of American parent(s)         | .5                | 1                           |
| Foreign-born, U.S. citizen by naturalization      | 3.8               | 4.3                         |
| Foreign-born, not U.S. citizen                    | 33.5*             | 7.3                         |

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

## Unemployment

Unemployed workers are people who reported on the CPS that they are “unemployed on layoff” or are “unemployed and looking for employment.”

Unemployed hired farmworkers are those unemployed people who reported their last primary job was hired farmwork. They accounted for over 2 percent of all unemployment in 1998. The unemployment rate for hired farmworkers (11.8 percent) was one of the highest for all major occupations in 1998, sharing similarly high rates with private household workers, handlers, equipment cleaners, helpers and laborers, and other farming, fishing and forestry workers (fig. 16). Unemployment in the hired farm labor force remained stable between 1994 and 1998 (12.4 to 11.5 percent), while unemployment in the wage and salary labor force declined (from 6.1 percent to 4.5 percent) (fig. 17). However, the unemployment rate for the hired farm labor force fluctuated widely during 1998 (3.48 percent in October to 24.19 percent in March) than that of the total wage and salary labor force (3.97 percent in December to 5.27 percent in January).

**Table 3—Demographic characteristics of foreign-born workers who were not citizens of the United States, 1998**

| Characteristics       | Annual averages                            |                                                  |
|-----------------------|--------------------------------------------|--------------------------------------------------|
|                       | Foreign-born, noncitizen hired farmworkers | Foreign-born, noncitizen wage and salary workers |
|                       | <i>Thousands</i>                           |                                                  |
| Total                 | 294                                        | 8,530                                            |
|                       | <i>Percent</i>                             |                                                  |
| Total                 | 100                                        | 100                                              |
| Gender:               |                                            |                                                  |
| Male                  | 86.8*                                      | 62.3                                             |
| Female                | 13.2*                                      | 37.7                                             |
| Racial/ethnic group   |                                            |                                                  |
| White                 | 2.2***                                     | 17.7                                             |
| Hispanic              | 94.5***                                    | 55.7                                             |
| Black and others      | 3.3*                                       | 26.6                                             |
| Age (years):          |                                            |                                                  |
| Less than 20          | 4.3**                                      | 4.1                                              |
| 20-24                 | 20.3***                                    | 12.9                                             |
| 25-34                 | 32.3                                       | 34.5                                             |
| 35-44                 | 22.1                                       | 27.6                                             |
| 45-54                 | 15.1                                       | 14.4                                             |
| 55 and over           | 5.8**                                      | 6.4                                              |
| Median age            | 32*                                        | 34                                               |
| Schooling completed:  |                                            |                                                  |
| 0-4 years             | 25.9***                                    | 7.5                                              |
| 5-8 years             | 41.4***                                    | 17.0                                             |
| 9-11 years            | 16.0**                                     | 16.3                                             |
| 12 years <sup>1</sup> | 12.3***                                    | 23.7                                             |
| 13 or more years      | 4.5***                                     | 35.5                                             |
| Establishment:        |                                            |                                                  |
| Crop production       | 73.4**                                     | —                                                |
| Livestock production  | 21.6**                                     | —                                                |
| Other                 | 5.0                                        | —                                                |
| Census region:        |                                            |                                                  |
| Northeast             | 3.0***                                     | 21.8                                             |
| South                 | 22.0**                                     | 26.9                                             |
| Midwest               | 1.5***                                     | 10.6                                             |
| West                  | 73.5***                                    | 40.6                                             |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

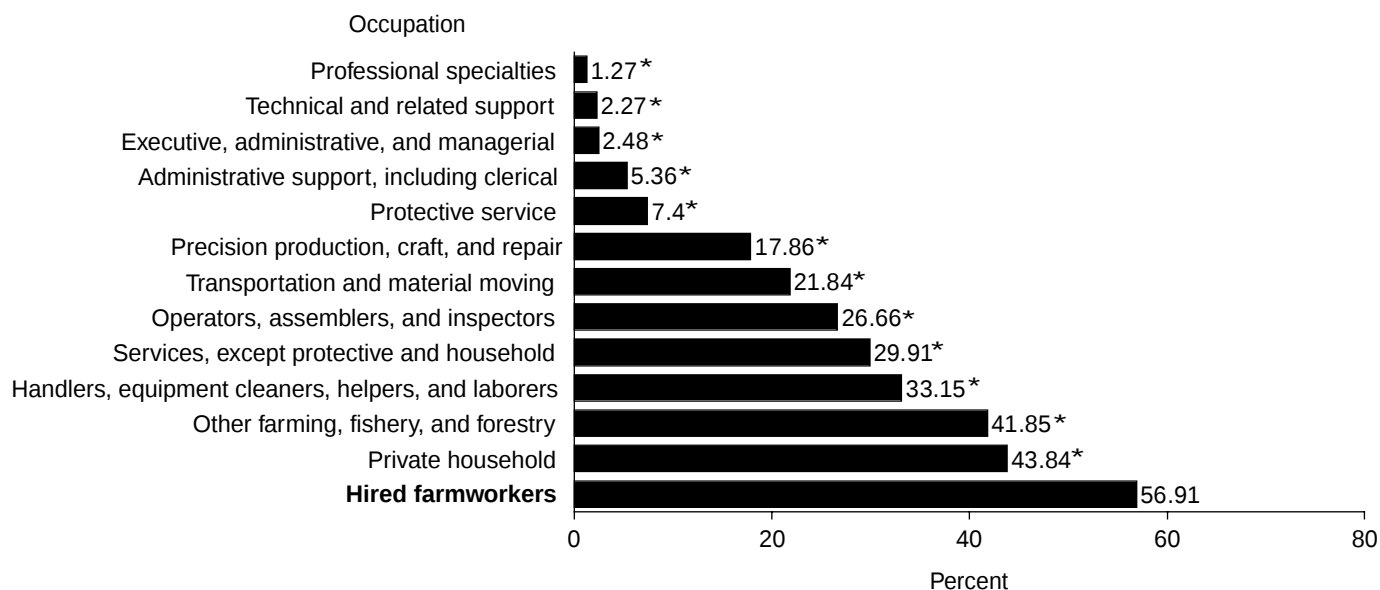
\*Significantly different from all wage and salary workers at the 95-percent confidence level.

\*\*Significantly different from all hired farmworkers (see tables 2, 13, and 15) at the 95-percent confidence level.

\*\*\*Significantly different from all wage and salary workers and all hired farmworkers (see tables 2, 13, and 15) at the 95-percent confidence level.

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

Figure 15

**Percent of workers completing less than 12 years of education, by occupation, 1998**

\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

**Table 4—Education completed by hired farmworkers, by gender and racial/ethnic group, 1998**

| Years of education completed | Annual averages |        |       |          |                 |
|------------------------------|-----------------|--------|-------|----------|-----------------|
|                              | Male            | Female | White | Hispanic | Black and other |
| <i>Thousands</i>             |                 |        |       |          |                 |
| Total                        | 733             | 142    | 458   | 366      | 51              |
| <i>Percent</i>               |                 |        |       |          |                 |
| Total                        | 100             | 100    | 100   | 100      | 100             |
| 0-4                          | 12.2            | 4.3*   | 1.5   | 23.8**   | 3.6             |
| 5-8                          | 20.6            | 23.3   | 6.0   | 40.2**   | 19.3*           |
| 9-11                         | 25.4            | 22.5   | 28.6  | 19.1**   | 33.4            |
| 12                           | 27.2            | 22.6   | 37.3  | 12.5**   | 28.6            |
| 13 or more                   | 14.6            | 27.3*  | 26.6  | 4.4**    | 15.1            |

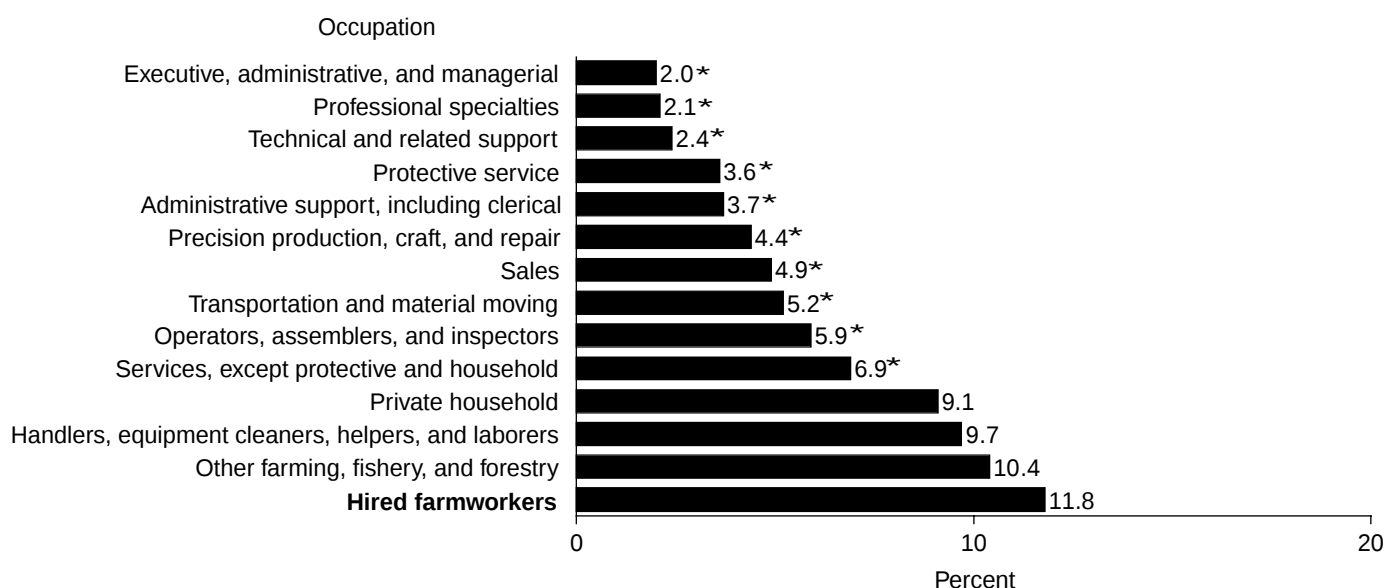
Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from male workers at the 95-percent confidence level.

\*\* Significantly different from white workers at the 95-percent confidence level.

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

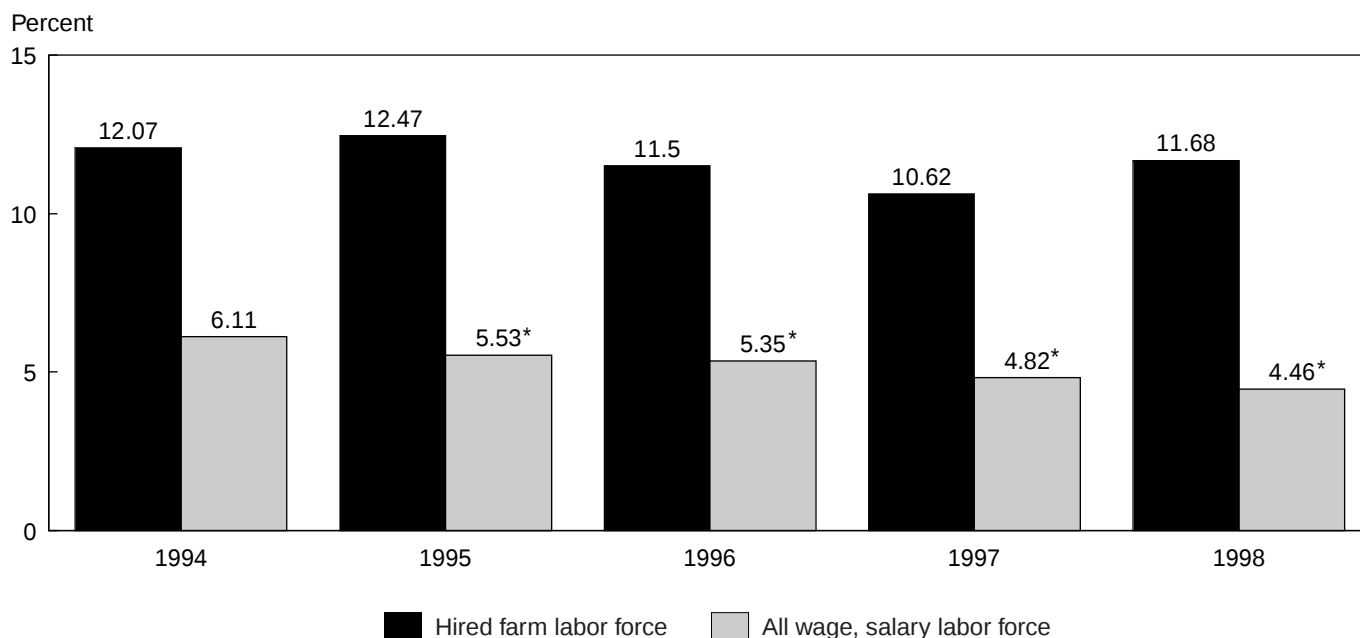
Figure 16

**Rates of unemployment, by occupation, 1998**

\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 17

**Percent unemployment, hired farm labor force and all wage and salary labor force, 1994-98<sup>1</sup>**

<sup>1</sup>Last job was hired farmwork.

\*Significantly different from previous year at the 95-percent confidence level.

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

Compared with all unemployed in the wage and salary labor force, unemployed hired farmworkers were more likely to be male, Hispanic, older, less educated, not U. S. citizens, and located in the West (table 5).

Although the 11.8 percent unemployment rate in the hired farm workforce was considerably higher than for all wage and salary workers, some groups had much higher rates (table 6). Groups with higher rates of unemployment were female, black and other races, 20 to 24 year olds, those with less than 8 years of education, noncitizens, those working in the West, and those working in crop production and other establishments. Groups with lower rates of unemployment were managers, supervisors of farmworkers, nursery workers, white, 55 years and older, those with 13 or more years of education, those working in the Midwest, and those working in livestock production.

A higher percentage of unemployed hired farmworkers gave “job loser/on layoff” as the reason for unemployment, and only a small percent were “job leavers” (table 7). Both unemployed groups had similar median lengths of unemployment, but higher numbers of hired farmworkers reported they were off work 4 to 6 months in 1998 (table 7).

## Secondary Job Holders

Secondary jobholders are workers who held more than one job during the reference week.<sup>3</sup> The job at which the worker spent the most hours was the primary occupation, and the job with the next greatest number of work hours was the secondary job.

About 63,000 people whose primary jobs were not hired farmworker had secondary jobs as hired farmworkers in 1998 (table 8). These workers were more likely than all hired farmworkers to be white, older, more highly educated, and U.S. citizens. Almost half lived in the Midwest.<sup>4</sup> Most (97 percent) had second jobs as farmworkers in agricultural service establishments.

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<sup>3</sup> Secondary jobholders include employed people who had either two or more jobs in wage and salary work; 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>4</sup> The distribution of all wage and salary workers in 1998 was 19.1 percent in the Northeast, 34.9 percent in the South, 24.3 percent in the Midwest, and 21.7 percent in the West.

**Table 5—Demographic characteristics of the unemployed, 1998**

| Characteristics                    | Annual averages   |                |                             |                |
|------------------------------------|-------------------|----------------|-----------------------------|----------------|
|                                    | Hired farmworkers |                | All wage and salary workers |                |
|                                    | <i>Thousands</i>  | <i>Percent</i> | <i>Thousands</i>            | <i>Percent</i> |
| All                                | 117               | 100            | 5,473                       | 100            |
| Gender:                            |                   |                |                             |                |
| Male                               | 81                | 69.1***        | 2,887                       | 52.7           |
| Female                             | 36                | 30.9***        | 2,586                       | 47.3           |
| Racial/ethnic group:               |                   |                |                             |                |
| White                              | 34                | 29.1***        | 3,100                       | 56.6           |
| Hispanic                           | 60                | 51.4*          | 914                         | 16.7           |
| Black and others                   | 23                | 19.5**         | 1,459                       | 26.7           |
| Age (years):                       |                   |                |                             |                |
| Less than 20                       | 20                | 16.8           | 847                         | 15.4           |
| 20-24                              | 24                | 20.4           | 984                         | 18.0           |
| 25-34                              | 23                | 19.9           | 1,339                       | 24.5           |
| 35-44                              | 27                | 23.2           | 1,128                       | 20.6           |
| 45-54                              | 15                | 13.1           | 756                         | 13.8           |
| 55 and over                        | 8                 | 6.5**          | 419                         | 7.7            |
| Median age                         | 33*               |                | 31                          |                |
| Marital status:                    |                   |                |                             |                |
| Married                            | 54                | 45.9           | 1,959                       | 35.8           |
| Widowed, divorced,<br>or separated | 16                | 13.4           | 887                         | 16.2           |
| Never married                      | 47                | 40.7           | 2,627                       | 48.            |
| Schooling completed:               |                   |                |                             |                |
| 0-4 years                          | 19                | 16.6*          | 73                          | 1.3            |
| 5-8 years                          | 34                | 29.0*          | 267                         | 4.9            |
| 9-11 years                         | 30                | 26.1*          | 1,280                       | 23.4           |
| 12 years <sup>1</sup>              | 26                | 22.6*          | 1,935                       | 35.3           |
| 13 or more years                   | 7                 | 5.7***         | 1,918                       | 35.1           |
| Citizenship status:                |                   |                |                             |                |
| U.S citizen                        | 64                | 54.3***        | 4,941                       | 90.3           |
| Not U.S. citizen                   | 53                | 45.7***        | 532                         | 9.7            |
| Establishment:                     |                   |                |                             |                |
| Crop production                    | 93                | 79.4**         | —                           | —              |
| Livestock production               | 11                | 9.7**          | —                           | —              |
| Other                              | 13                | 10.9           | —                           | —              |
| Census region                      |                   |                |                             |                |
| Northeast                          | 7                 | 6.4*           | 1,069                       | 19.6           |
| South                              | 26                | 22.4*          | 1,795                       | 32.8           |
| Midwest                            | 13                | 11.2***        | 1,135                       | 20.7           |
| West                               | 70                | 60.0**         | 1,474                       | 26.9           |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from All Wage and Salary Workers at the 95-percent confidence level.

\*\*Significantly different from all hired farmworkers (tables 2, 13, and 15) at the 95-percent confidence level.

\*\*\*Significantly different from all wage and salary workers and all hired farmworkers (see tables 2, 13, and 15) at the 95-percent confidence level.

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

**Table 6—Rates of unemployment among hired farmworkers, by demographic characteristic, 1998**

|                                         | <i>Percent unemployed</i> |
|-----------------------------------------|---------------------------|
| All hired farmworkers                   | 11.8                      |
| Occupation:                             |                           |
| Managers, farms, except horticultural   | 0*                        |
| Managers, horticultural specialty farms | 8.4*                      |
| Supervisors, farmworkers                | 7.0*                      |
| Farmworkers                             | 13.0                      |
| Nursery workers                         | 9.1*                      |
| Gender:                                 |                           |
| Male                                    | 9.9                       |
| Female                                  | 20.4*                     |
| Racial/ethnic group                     |                           |
| White                                   | 6.9*                      |
| Hispanic                                | 14.2                      |
| Black and other                         | 31.0*                     |
| Age (years):                            |                           |
| Less than 20                            | 12.9                      |
| 20-24                                   | 17.9*                     |
| 25-34                                   | 9.4                       |
| 35-44                                   | 12.8                      |
| 45-54                                   | 11.0                      |
| 55 and over                             | 7.4*                      |
| Schooling completed                     |                           |
| 0-4 years                               | 16.9*                     |
| 5-8 years                               | 15.6*                     |
| 9-11 years                              | 12.3                      |
| 12 years                                | 10.2                      |
| 13 or more years                        | 4.3*                      |
| Citizenship status:                     |                           |
| U.S. citizen                            | 9.8                       |
| Not U.S. citizen                        | 15.5*                     |
| Census region:                          |                           |
| Northeast                               | 10.4                      |
| South                                   | 8.7                       |
| Midwest                                 | 7.2*                      |
| West                                    | 16.0                      |
| Establishment:                          |                           |
| Crop production                         | 16.9*                     |
| Livestock production                    | 3.0*                      |
| Other                                   | 20.5*                     |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from unemployed percent (11.8) of all hired farmworkers at the 95-percent confidence level.

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

**Table 7—Reasons for unemployment and duration of unemployment, 1998**

| Item                      | Hired farmworkers |                | All wage and salary workers |                |
|---------------------------|-------------------|----------------|-----------------------------|----------------|
|                           | <i>Thousands</i>  | <i>Percent</i> | <i>Thousands</i>            | <i>Percent</i> |
| Reasons for unemployment: |                   |                |                             |                |
| Job loser/on layoff       | 47                | 40.5*          | 883                         | 16.1           |
| Other job loser           | 8                 | 6.7*           | 1,286                       | 23.5           |
| Temporary job ended       | 16                | 13.8           | 560                         | 10.2           |
| Job leaver                | 4                 | 3.7*           | 701                         | 12.8           |
| Re-entrant                | 41                | 35.3           | 2,043                       | 37.3           |
| Duration of unemployment: |                   |                |                             |                |
| Less than 4 months        | 32                | 27.0           | 1,671                       | 30.5           |
| 4-6 months                | 33                | 28.0*          | 923                         | 16.9           |
| 7-9 months                | 10                | 8.3            | 612                         | 11.2           |
| 10-12 months              | 6                 | 5.3            | 476                         | 8.7            |
| 13 months and over        | 36                | 31.3           | 1,790                       | 32.7           |
| Median (months)           |                   | 6              |                             | 7              |

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

**Table 8—Demographic characteristics of individuals reporting hired farmwork as their secondary job, 1998<sup>1</sup>**

| Characteristics       | Annual averages                 |                |                       |                |
|-----------------------|---------------------------------|----------------|-----------------------|----------------|
|                       | Secondary job in hired farmwork |                | All hired farmworkers |                |
|                       | <i>Thousands</i>                | <i>Percent</i> | <i>Thousands</i>      | <i>Percent</i> |
| All                   | 63                              | 100            | 875                   | 100            |
| Gender:               |                                 |                |                       |                |
| Male                  | 46                              | 72.7           | 733                   | 83.8           |
| Female                | 17                              | 27.3           | 142                   | 16.2           |
| Racial/ethnic group:  |                                 |                |                       |                |
| White                 | 56                              | 88.7 *         | 458                   | 52.4           |
| Hispanic              | 4                               | 6.9*           | 366                   | 41.8           |
| Black and others      | 3                               | 4.4            | 52                    | 5.8            |
| Age (years):          |                                 |                |                       |                |
| Less than 20          | 5                               | 8.3            | 133                   | 15.2           |
| 20-24                 | 6                               | 9.3            | 116                   | 13.3           |
| 25-34                 | 17                              | 26.9           | 224                   | 25.6           |
| 35-44                 | 15                              | 24.4           | 185                   | 21.1           |
| 45-54                 | 12                              | 19.4           | 122                   | 14.0           |
| 55 and over           | 7                               | 11.7           | 95                    | 10.8           |
| Median age            | 37*                             |                | 33                    |                |
| Schooling completed:  |                                 |                |                       |                |
| 0-4 years             | 1                               | 1.4*           | 96                    | 10.9           |
| 5-8 years             | 3                               | 4.7*           | 184                   | 21.1           |
| 9-11 years            | 6                               | 9.0*           | 218                   | 24.9           |
| 12 years <sup>2</sup> | 20                              | 32.5           | 232                   | 26.5           |
| 13 or more years      | 33                              | 52.4*          | 145                   | 16.6           |
| Citizenship:          |                                 |                |                       |                |
| U.S. citizen          | 60                              | 94.6*          | 581                   | 66.5           |
| Not U.S. citizen      | 3                               | 5.4*           | 294                   | 33.5           |
| Establishment:        |                                 |                |                       |                |
| Crop production       | 0                               | 0*             | 458                   | 52.3           |
| Livestock production  | 2                               | 2.7*           | 368                   | 42.0           |
| Other                 | 61                              | 97.3*          | 49                    | 5.7            |
| Census region:        |                                 |                |                       |                |
| Northeast             | 8                               | 12.8           | 64                    | 7.4            |
| South                 | 11                              | 18.1*          | 275                   | 31.4           |
| Midwest               | 31                              | 49.7*          | 167                   | 19.1           |
| West                  | 12                              | 19.4*          | 369                   | 42.2           |

<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 member and also held a wage and salary job and reported hired farmwork as their secondary job.

<sup>2</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from all hired farmworkers at the 95-percent confidence level.

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

## Part- and Full-Time Workers

About 19 percent (162,000) of hired farmworkers were employed part-time (less than 35 hours per week) in 1998.<sup>5</sup> The percentage of hired farmworkers working part-time is not as high as for some other occupations (fig. 18). Percentages of part-time workers ranged from 5 percent for precision production, craft and repair occupations, to 57 percent for private household services occupations. Part-time hired farmworkers were more likely than full-time hired farmworkers to be female, never married, U.S. citizens, and located in the Midwest census region (table 9). Over 50 percent were less than 20 years old, compared with 7 percent of full-time workers. A higher proportion of part-time hired farmworkers were employed in livestock production.

Survey enumerators asked part-time workers whether they worked part-time voluntarily for noneconomic reasons or because of economic reasons, such as slack

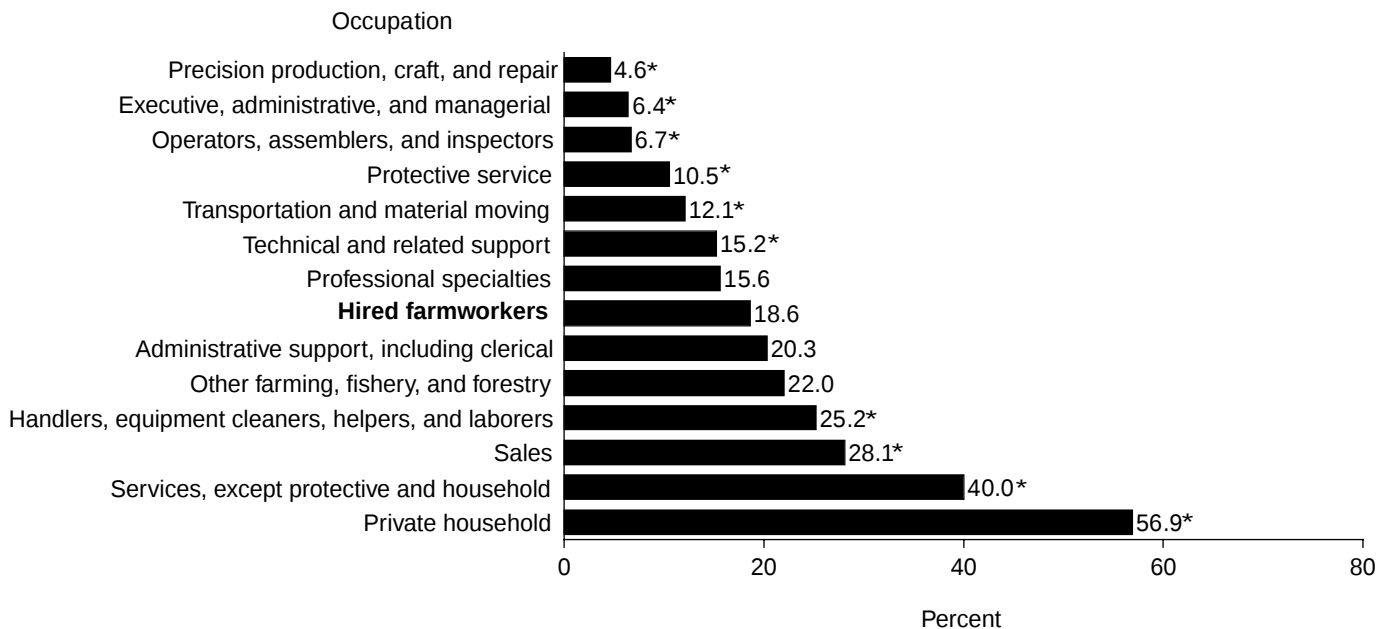
work or business conditions, or because they could find only part-time work. Almost 70 percent reported they worked part-time voluntarily. The number of hired farmworkers who reported working part-time for economic reasons was too small (base was less than 50,000) for statistically reliable analysis; therefore, only the noneconomic reasons will be discussed.

A large percent of both part-time hired workers and part-time wage and salary workers gave “school/training” as the major noneconomic reason for working part-time (table 10). The percentage of hired farmworkers giving this response was significantly higher than the percentage of all wage and salary workers, which is not surprising since more than half of the part-time hired farmworkers were less than 20 years old. The seasonal nature of farmwork frequently accommodates the need of students for flexible schedules.

<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.

Figure 18

### Part-time workers, by occupation, 1998



\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

**Table 9—Demographic characteristics of part-time and full-time hired farmworkers and all wage and salary workers, 1998**

| 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 |
| All                                | 162               | 100      | 713       | 100     | 21,252                      | 100     | 95,630    | 100     |
| Gender:                            |                   |          |           |         |                             |         |           |         |
| Male                               | 118               | 72.4**** | 616       | 86.4*** | 6,700                       | 31.5    | 54,332    | 56.8    |
| Female                             | 44                | 27.6**** | 97        | 13.6*** | 14,552                      | 68.5    | 41,298    | 43.2    |
| Racial/ethnic group:               |                   |          |           |         |                             |         |           |         |
| White                              | 134               | 82.5*    | 324       | 45.5*** | 16,445                      | 77.4    | 69,385    | 72.6    |
| Hispanic                           | 22                | 14.0*    | 343       | 48.1*** | 1,859                       | 8.7     | 10,538    | 11.0    |
| Black and others                   | 6                 | 3.5*     | 45        | 6.3***  | 2,948                       | 13.9    | 15,707    | 16.4    |
| Age (years):                       |                   |          |           |         |                             |         |           |         |
| Less than 20                       | 83                | 51.2**** | 50        | 7.0***  | 5,078                       | 23.9    | 2,249     | 2.4     |
| 20-24                              | 12                | 7.6****  | 104       | 14.6*** | 3,380                       | 15.9    | 8,836     | 9.2     |
| 25-34                              | 19                | 11.9*    | 204       | 28.7    | 3,507                       | 16.5    | 25,552    | 26.7    |
| 35-44                              | 14                | 8.4****  | 171       | 24.0*** | 3,641                       | 17.1    | 28,156    | 29.4    |
| 45-54                              | 13                | 7.9*     | 110       | 15.4*** | 2,497                       | 11.7    | 21,022    | 22.0    |
| 55 and over                        | 21                | 13.1     | 74        | 10.3    | 3,149                       | 14.8    | 9,815     | 10.3    |
| Median age                         | 19*****           |          | 34*****   |         | 31                          |         | 38        |         |
| Marital status:                    |                   |          |           |         |                             |         |           |         |
| Married                            | 48                | 29.4**** | 406       | 57.0    | 9,065                       | 42.7    | 56,830    | 59.4    |
| Widowed, divorced,<br>or separated | 8                 | 5.0****  | 73        | 10.3*** | 2,380                       | 11.2    | 14,815    | 15.5    |
| Never married                      | 106               | 65.6**** | 233       | 32.7*** | 9,807                       | 46.1    | 23,985    | 25.1    |
| Schooling completed: <sup>1</sup>  |                   |          |           |         |                             |         |           |         |
| 0-4 years                          | 7                 | 4.1*     | 89        | 12.5*** | 141                         | 0.7     | 769       | 0.8     |
| 5-8 years                          | 15                | 9.3****  | 169       | 23.7*** | 656                         | 3.1     | 2,553     | 2.7     |
| 9-11 years                         | 76                | 46.8**** | 142       | 19.9*** | 4,633                       | 21.8    | 7,280     | 7.6     |
| 12 years <sup>1</sup>              | 38                | 23.3     | 194       | 27.2*** | 5,762                       | 27.1    | 31,362    | 32.8    |
| 13 or more years                   | 26                | 16.4**** | 119       | 16.7*** | 10,060                      | 47.3    | 53,666    | 56.1    |
| Citizenship:                       |                   |          |           |         |                             |         |           |         |
| U.S. citizen                       | 150               | 92.3*    | 432       | 60.6*** | 20,042                      | 94.3    | 88,310    | 92.4    |
| Not U.S. citizen                   | 12                | 7.7*     | 281       | 39.4*** | 1,210                       | 5.7     | 7,320     | 7.6     |
| Establishment:                     |                   |          |           |         |                             |         |           |         |
| Crop production                    | 64                | 39.1*    | 394       | 55.3    | —                           | —       | —         | —       |
| Livestock production               | 92                | 57.0*    | 275       | 38.6    | —                           | —       | —         | —       |
| Other                              | 6                 | 3.9      | 43        | 6.1     | —                           | —       | —         | —       |
| Census region:                     |                   |          |           |         |                             |         |           |         |
| Northeast                          | 16                | 10.2**   | 48        | 6.8***  | 4,409                       | 20.7    | 17,892    | 18.7    |
| South                              | 39                | 24.3     | 235       | 33.0    | 6,181                       | 29.1    | 34,632    | 36.2    |
| Midwest                            | 60                | 36.9**** | 107       | 15.0*** | 5,756                       | 27.1    | 22,696    | 23.7    |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from full-time hired farmworkers at the 95-percent confidence level.

\*\*Significantly different from part-time all wage and salary workers at the 95-percent confidence level.

\*\*\*Significantly different from full-time all wage and salary workers at the 95-percent confidence level.

\*\*\*\*Significantly different from full-time hired farmworkers and part-time all wage and salary workers at the 95-percent confidence level.

\*\*\*\*\*Significantly different from part-time all wage and salary workers and full-time all wage and salary workers at the 95-percent confidence level.

\*\*\*\*\*Significantly different from full-time hired farmworkers, part-time all wage and salary workers, and full-time all wage and salary workers at the 95-percent confidence level.

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

**Table 10—Reasons why part-time workers want to work part-time, 1998**

| Reasons                                   | Annual averages   |                             |
|-------------------------------------------|-------------------|-----------------------------|
|                                           | Hired farmworkers | All wage and salary workers |
|                                           | <i>Thousands</i>  |                             |
| Total workers <sup>1</sup>                | 112               | 13,998                      |
|                                           | <i>Percent</i>    |                             |
| Child care problems                       | 0.8*              | 4.3                         |
| Other family/personal obligations         | 12.2*             | 27.4                        |
| Health/medical limitations                | 6.2               | 3.7                         |
| School/training                           | 64.1*             | 44.6                        |
| Retired/Social Security limit on earnings | 9.5               | 10.2                        |
| Full-time work week less than 35 hours    | 3.9               | 2.6                         |
| Other                                     | 3.2*              | 7.2                         |

<sup>1</sup>Those working part-time by choice.

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

## Geographic Distribution of Hired Farmworkers

Demand for hired farmworkers varies by type of crop and livestock, length of growing and harvesting season, extent of mechanization, and scale of production. As a result, the number of hired farmworkers varies significantly among the census regions (table 11). The West had over 42 percent of all hired farmworkers in 1998, and the West and the South together accounted for almost 75 percent of hired farmworkers. The Northeast contained the smallest number of workers (7 percent).

The demographic characteristics of hired farmworkers differ by region (table 12). Hired farmworkers in the Northeast were more likely to be females than in any other region. The percent of white workers was higher in the Northeast and Midwest, the percent of Hispanic workers was higher in the West, and the percent of black and other workers was higher in the South. Hired farmworkers were younger in the Northeast and Midwest (youngest) and older in the South (oldest) and West. A higher percent of hired farmworkers in the

West had completed less than 9 years of education while a higher percent of those in the Midwest had completed 13 or more years.

The West had the highest percent of workers (71 percent) employed in crop production, while the Midwest had the lowest (24 percent). These regions switched rankings in livestock production, with the Midwest having the highest percent of hired farmworkers (71 percent) and the West having the lowest (23 percent).

The percent of hired farmworkers in the Midwest earning less than \$200 per week was significantly greater than for all hired farmworkers, and the percent earning less than \$100 in the West was less. The lower earnings in the Midwest can be partially explained by the almost 36 percent of the hired farmworkers who worked part-time. In the West, 13 percent were part-time hired farmworkers.

**Table 11—Number of hired farmworkers, by census region, 1990-98**

| Year | Annual averages  |                |                  |                |                  |                |                  |                |                  |
|------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|
|      | Northeast        |                | South            |                | Midwest          |                | West             |                | Totals           |
|      | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> | <i>Percent</i> | <i>Thousands</i> |
| 1990 | 62               | 6.9            | 315              | 35.6           | 214              | 24.1           | 295              | 33.4           | 886              |
| 1991 | 54               | 6.1            | 328              | 37.1           | 206              | 23.3           | 296              | 33.5           | 884              |
| 1992 | 52               | 6.1            | 320              | 37.8           | 201              | 23.7           | 275              | 32.4           | 848              |
| 1993 | 49               | 6.1            | 301              | 37.5           | 172              | 21.4           | 281              | 35.0           | 803              |
| 1994 | 47               | 6.0            | 312              | 39.4           | 146              | 18.4           | 287              | 36.2           | 792              |
| 1995 | 60               | 7.1            | 274              | 32.3           | 170              | 20.0           | 345              | 40.6           | 849              |
| 1996 | 65               | 7.2            | 280              | 30.9           | 217              | 23.9           | 344              | 38.0           | 906              |
| 1997 | 57               | 6.4            | 286              | 32.1           | 176              | 19.8           | 370              | 41.7           | 889              |
| 1998 | 64               | 7.4            | 275              | 31.4           | 167              | 19.1           | 369              | 42.2           | 875              |

Note: Data for 1994 and later years 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 12—Demographic and earnings characteristics of hired farmworkers, by census region, 1998**

| Characteristic                    | Annual averages  |       |         |       |                       |
|-----------------------------------|------------------|-------|---------|-------|-----------------------|
|                                   | Northeast        | South | Midwest | West  | All hired farmworkers |
|                                   | <i>Thousands</i> |       |         |       |                       |
| Total                             | 64               | 275   | 167     | 369   | 875                   |
|                                   | <i>Percent</i>   |       |         |       |                       |
| Gender:                           |                  |       |         |       |                       |
| Male                              | 70.1*            | 85.2  | 84.2    | 85.0  | 83.8                  |
| Female                            | 29.9*            | 14.8  | 15.8    | 15.0  | 16.2                  |
| Racial/ethnic group:              |                  |       |         |       |                       |
| White                             | 85.7*            | 50.1  | 96.0*   | 28.6* | 52.4                  |
| Hispanic                          | 5.7*             | 37.3  | 3.0*    | 68.9* | 41.8                  |
| Black and others                  | 8.6              | 12.6* | 0.9*    | 2.5*  | 5.8                   |
| Age (years):                      |                  |       |         |       |                       |
| Less than 20                      | 19.1             | 9.2*  | 37.1*   | 9.0*  | 15.2                  |
| 20-24                             | 16.4             | 12.1  | 12.0    | 14.2  | 13.3                  |
| 25-34                             | 27.9             | 28.6  | 15.2*   | 27.6  | 25.6                  |
| 35-44                             | 20.1             | 20.7  | 15.0    | 24.4  | 21.1                  |
| 45-54                             | 5.9*             | 16.7  | 8.3*    | 16.0  | 14.0                  |
| 55 and over                       | 10.7             | 12.7  | 12.3    | 8.8   | 10.8                  |
| Median age                        | 30*              | 35*   | 25*     | 34*   | 33                    |
| Schooling completed:              |                  |       |         |       |                       |
| 0-4 years                         | 1.2*             | 10.2  | 0.7*    | 17.8* | 10.9                  |
| 5-8 years                         | 7.7*             | 20.4  | 5.7*    | 30.8* | 21.1                  |
| 9-11 years                        | 26.4             | 27.2  | 33.3    | 19.2  | 24.9                  |
| 12 years <sup>1</sup>             | 46.3*            | 27.5  | 33.4    | 19.0* | 26.5                  |
| 13 or more years                  | 18.3             | 14.7  | 26.9*   | 13.1  | 16.6                  |
| Establishment:                    |                  |       |         |       |                       |
| Crop production                   | 34.6*            | 48.3  | 24.1*   | 71.1* | 52.3                  |
| Livestock production              | 55.9             | 47.0  | 71.1*   | 22.8* | 42.0                  |
| Other establishments <sup>2</sup> | 9.5              | 4.7   | 4.9     | 6.1   | 5.7                   |
| Status:                           |                  |       |         |       |                       |
| Part-time                         | 25.5             | 14.4  | 35.9*   | 12.6* | 18.6                  |
| Full-time                         | 74.5             | 85.6  | 64.1*   | 87.4* | 81.4                  |
| Weekly earnings:                  |                  |       |         |       |                       |
| Less than \$100                   | 15.1             | 7.7   | 26.4*   | 6.1*  | 11.1                  |
| \$100-\$199                       | 18.5             | 14.1  | 18.8*   | 11.7  | 14.3                  |
| \$200-\$299                       | 28.0             | 39.6  | 15.3*   | 41.1  | 34.7                  |
| \$300-\$399                       | 12.9             | 18.0  | 13.5    | 21.2  | 18.1                  |
| \$499-\$499                       | 9.0              | 8.2   | 12.2    | 10.1  | 9.8                   |
| \$500-\$599                       | 8.0              | 6.2   | 6.9     | 3.1   | 5.2                   |
| \$600 and over                    | 8.5              | 6.3   | 7.0     | 6.7   | 6.7                   |

<sup>1</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

<sup>2</sup>Other establishments refer to agricultural services.

\* Significantly different from all hired farmworkers at the 95-percent confidence level.

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

## Distribution of Hired Farmworkers by Establishment

More than 52 percent of hired farmworkers were employed in crop production in 1998, 42 percent were employed in livestock production, and 6 percent were employed in other agricultural establishments (table 13).<sup>6</sup> Throughout the 1990's, the portion of hired farmworkers employed in crop, livestock, and other establishments has remained fairly constant, although the percentage in the other category was lower in 1998 than for most of the decade (table 13).

The demographic characteristics of workers differed among the establishment types (table 14). Crop production workers tended to be Hispanic (59 percent), older (median age of 34), and less educated (44 percent had less than 9 years of education) than livestock workers. Over half of crop workers were employed in the West, and 86 percent were employed full-time.

<sup>6</sup> The workers in the "other" establishment category were farm managers (10 percent), supervisors of farmworkers (6 percent), and were hired workers (84 percent), compared with 8 percent of all hired farmworkers being farm managers, 4 percent supervisors of farmworkers, and 88 percent hired workers.

**Table 13—Number of hired farmworkers, by establishment, 1990-98**

| Year | Annual averages |         |                      |         |                    |         | Totals |
|------|-----------------|---------|----------------------|---------|--------------------|---------|--------|
|      | Crop production |         | Livestock production |         | Other <sup>1</sup> |         |        |
|      | Thousands       | Percent | Thousands            | Percent | Thousands          | Percent |        |
| 1990 | 419             | 47.3    | 390                  | 44.0    | 77                 | 8.7     | 886    |
| 1991 | 449             | 50.7    | 363                  | 41.0    | 72                 | 8.2     | 884    |
| 1992 | 409             | 48.2    | 354                  | 42.9    | 75                 | 8.9     | 848    |
| 1993 | 436             | 54.3    | 313                  | 39.0    | 54                 | 6.7     | 803    |
| 1994 | 411             | 51.8    | 315                  | 39.8    | 66                 | 8.4     | 792    |
| 1995 | 433             | 51.0    | 345                  | 40.6    | 71                 | 8.4     | 849    |
| 1996 | 451             | 49.8    | 369                  | 40.7    | 86                 | 9.5     | 906    |
| 1997 | 432             | 48.6    | 376                  | 42.3    | 81                 | 9.1     | 889    |
| 1998 | 458             | 52.3    | 368                  | 42.0    | 49                 | 5.7     | 875    |

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

<sup>1</sup>Other establishments refer to agricultural services.

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

**Table 14—Demographic and earnings characteristics of hired farmworkers, by establishment, 1998**

| Characteristic        | Annual averages  |                      |                    |                       |
|-----------------------|------------------|----------------------|--------------------|-----------------------|
|                       | Crop production  | Livestock production | Other <sup>1</sup> | All hired farmworkers |
|                       | <i>Thousands</i> |                      |                    |                       |
| Total                 | 458              | 368                  | 49                 | 875                   |
|                       | <i>Percent</i>   |                      |                    |                       |
| Gender:               |                  |                      |                    |                       |
| Male                  | 85.0             | 84.3                 | — <sup>2</sup>     | 83.8                  |
| Female                | 15.0             | 15.7                 | —                  | 16.2                  |
| Racial/ethnic group:  |                  |                      |                    |                       |
| White                 | 34.1*            | 75.0*                | —                  | 52.4                  |
| Hispanic              | 59.0*            | 20.0*                | —                  | 41.8                  |
| Black and others      | 6.8              | 5.0                  | —                  | 5.8                   |
| Age (years):          |                  |                      |                    |                       |
| Less than 20          | 11.6             | 19.7                 | —                  | 15.2                  |
| 20-24                 | 14.3             | 12.8                 | —                  | 13.3                  |
| 25-34                 | 26.2             | 24.6                 | —                  | 25.6                  |
| 35-44                 | 20.3             | 21.5                 | —                  | 21.1                  |
| 45-54                 | 16.8             | 10.3                 | —                  | 14.0                  |
| 55 and over           | 10.7             | 11.0                 | —                  | 10.8                  |
| Median age            | 34*              | 31*                  | —                  | 33                    |
| Schooling completed:  |                  |                      |                    |                       |
| 0-4 years             | 15.9*            | 4.9*                 | —                  | 10.9                  |
| 5-8 years             | 28.3*            | 12.6*                | —                  | 21.1                  |
| 9-11 years            | 22.4             | 29.3                 | —                  | 24.9                  |
| 12 years <sup>3</sup> | 21.7             | 32.0                 | —                  | 26.5                  |
| 13 or more years      | 11.8*            | 21.3                 | —                  | 16.6                  |
| Census region:        |                  |                      |                    |                       |
| Northeast             | 4.9              | 9.8                  | —                  | 7.4                   |
| South                 | 29.0             | 35.1                 | —                  | 31.4                  |
| Midwest               | 8.9*             | 32.2*                | —                  | 19.1                  |
| West                  | 57.3*            | 22.9*                | —                  | 42.2                  |
| Status:               |                  |                      |                    |                       |
| Part-time             | 13.9             | 25.2*                | —                  | 18.6                  |
| Full-time             | 86.1             | 74.8*                | —                  | 81.4                  |
| Weekly earnings:      |                  |                      |                    |                       |
| Less than \$100       | 8.0              | 16.1                 | —                  | 11.1                  |
| \$100-\$199           | 11.2             | 18.3                 | —                  | 14.3                  |
| \$200-\$299           | 44.8*            | 20.6*                | —                  | 34.7                  |
| \$300-\$399           | 18.9             | 18.1                 | —                  | 18.1                  |
| \$499-\$499           | 8.0              | 12.5                 | —                  | 9.8                   |
| \$500-\$599           | 3.9              | 6.8                  | —                  | 5.2                   |
| \$600 and over        | 5.2              | 7.5                  | —                  | 6.7                   |

<sup>1</sup>Other establishments refer to agricultural services.

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

<sup>3</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\*Significantly different from all hired farmworkers at the 95-percent confidence level.

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

## Earnings Characteristics of Hired Farmworkers in 1998

In many nonfarm industries, the hourly wage is established through negotiations between a workers' bargaining unit and an employer. Generally, farm employers establish the wage system, and pay hourly wages, piece-rate wages, and/or a combination of hourly and piece-rate wages (Martin, 1998). According to Martin, farm employers tend to pay hourly wages under the following situations:

- When they want slow and careful work, such as pruning trees and vines.
- When the employer can easily control the pace of the work, such as field packing of vegetables, in which workers walk behind a machine whose pace is controlled by the driver/employer.
- By tradition for certain tasks, such as early season picking, thinning, or hoeing.

Farm employers tend to pay piece-rate wages under the following situations:

- When it is difficult to regulate the pace of the work.
- When product quality is not of great importance.
- When an employer wants to keep labor costs constant with a diverse labor force.

Employers pay a combination hourly and piece-rate wages when they want careful but fast work.

The average hourly earnings of workers who are paid piece rates are typically higher than hourly wages. However, hourly workers tend to average more hours per week. Martin (1998) found little difference between the weekly earnings of workers paid piece rate or hourly wages in California (Martin, 1998).<sup>7</sup>

The median weekly earnings for hired farmworkers were considerably lower than for all wage and salary workers. Hired farmworkers received median weekly earnings of \$260, about 57 percent of the \$456 received by all wage and salary workers (table 15).<sup>7</sup>

<sup>7</sup> Data on earnings refer to the usual earnings received from the worker's farmwork job, before deductions, and include any over-time pay or commissions.

The gap appears to have widened since 1996, when hired farmworkers received median weekly earnings of 60 percent of those received by all wage and salary workers (app. tables 1 and 2). Emerson and Roka (1999) argue that the financial return to unskilled labor, such as most hired farmwork, has remained relatively constant, while the financial return to more highly skilled labor has increased, increasing the gap between skilled and unskilled labor.

Between 1990 and 1998, median weekly earnings of hired farmworkers increased 30 percent (from \$200 to \$260), while the median weekly earnings of all wage and salary workers increased 27 percent (from \$360 to \$456). After adjusting for inflation, the median weekly earnings of hired farmworkers increased only 4 percent between 1990 and 1998, and the median weekly earnings for all wage and salary workers increased about 2 percent. Hired farmworkers, regardless of part-time or full-time status, continued to rank among the lowest paid workers of 13 major occupational groups (figs. 19, 20, and 21).

In addition to differences in weekly earnings between hired farmworkers and all wage and salary workers, weekly earnings differed among groups within the hired farm workforce (table 16). Hired farmworkers who were male, white or black and other, 25 to 55 years of age, more educated with at least 12 years of school, employed in livestock production, and living in the West had higher median earnings than their comparison groups.

### Minimum Wage

Comparing the percentage of hired farmworkers earning the Federal minimum wage with the percentage of all wage and salary workers earning the Federal minimum wage requires a brief discussion of the different treatment the employers of the two groups receive under Federal law. Many farm employers (including those employing 500 or less man-days of labor in a calendar quarter and those employing workers primarily in the range production of livestock) are not required to pay the Federal minimum wage (Runyan, 2000). Also some States (California, for example) require all employers to pay State minimum wages that are equal to or greater than the Federal minimum wage. Therefore, a significantly large percentage of hired farmworkers earning less than the Federal mini-

**Table 15—Weekly earnings of hired farmworkers and all wage and salary workers, 1998**

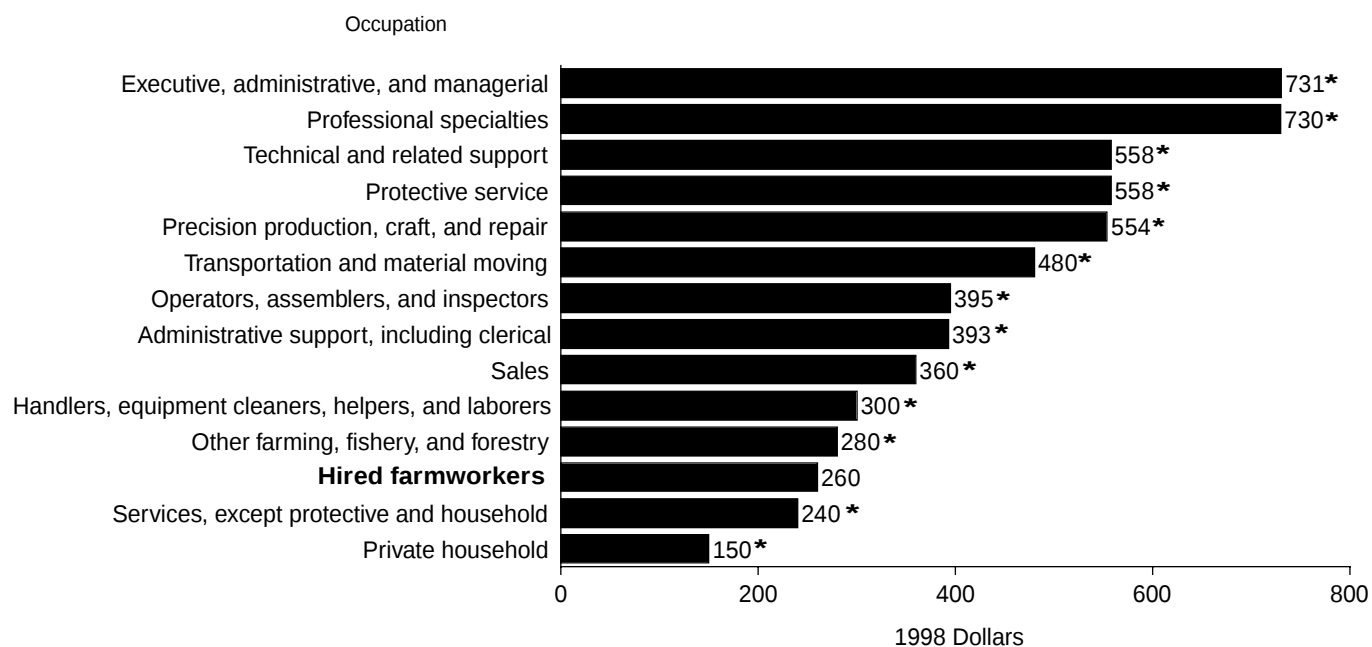
| Characteristics        | Annual averages   |                             |
|------------------------|-------------------|-----------------------------|
|                        | Hired farmworkers | All wage and salary workers |
| <i>Thousands</i>       |                   |                             |
| Total                  | 779               | 116,882                     |
| <i>Percent</i>         |                   |                             |
| Weekly earnings:       |                   |                             |
| Less than \$100        | 11.1*             | 5.0                         |
| \$100-\$199            | 14.3*             | 9.2                         |
| \$200-\$299            | 34.7*             | 14.2                        |
| \$300-\$399            | 18.2*             | 13.7                        |
| \$400-\$499            | 9.8*              | 12.6                        |
| \$500-\$599            | 5.2*              | 9.9                         |
| \$600 and over         | 6.7*              | 35.4                        |
| Median weekly earnings | \$260*            | \$456                       |

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

Figure 19

**Median weekly earnings of all workers, by occupation, 1998**

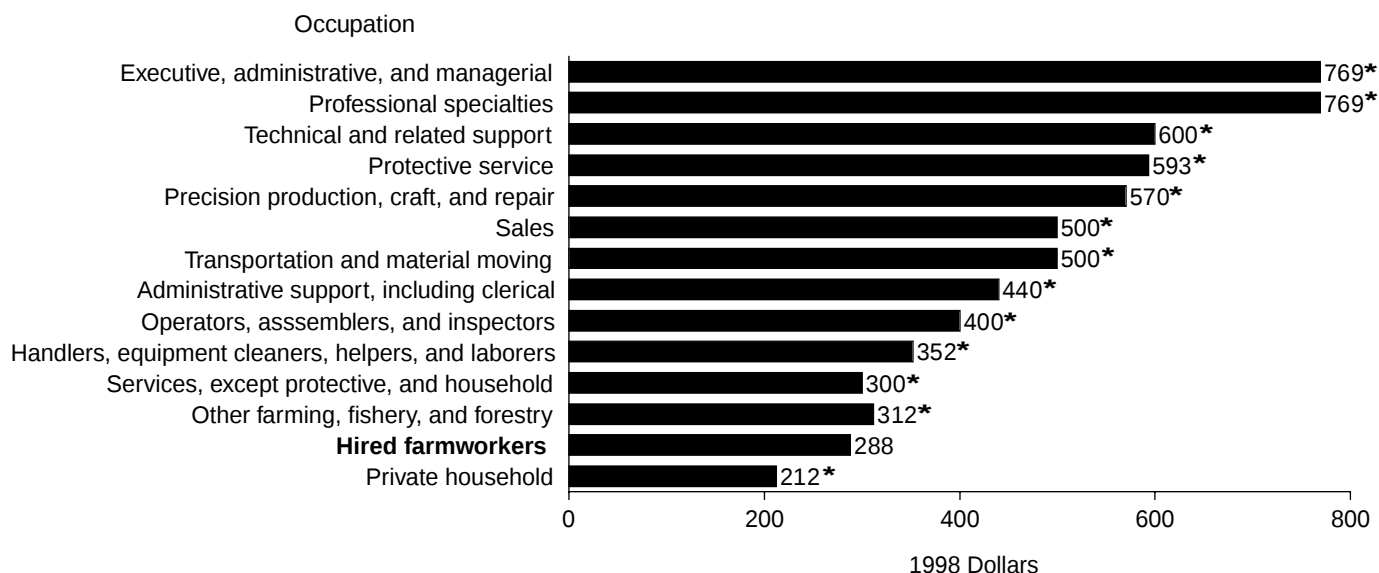


\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 20

**Median weekly earnings of full-time workers, by occupation, 1998**



\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 21

**Median weekly earnings of part-time workers, by occupation, 1998**



\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

**Table 16—Median weekly earnings of hired farmworkers, by demographic and employment characteristics, 1998**

|                       | Annual averages   |                        |                              |                   |                        |
|-----------------------|-------------------|------------------------|------------------------------|-------------------|------------------------|
| Characteristic        | Hired farmworkers | Median weekly earnings | Characteristic               | Hired farmworkers | Median weekly earnings |
|                       | Thousands         | Dollars                |                              | Thousands         | Dollars                |
| All hired farmworkers | 875               | 260                    | Schooling completed (years): |                   |                        |
|                       |                   |                        | 0-4                          | 96                | 250*                   |
| Gender:               |                   |                        | 5-8                          | 184               | 246*                   |
| Male                  | 733               | 270*                   | 9-11                         | 218               | 210*                   |
| Female                | 142               | 230*                   | 12                           | 232               | 315*                   |
|                       |                   |                        | 13 or more                   | 145               | 300*                   |
| Racial/ethnic:        |                   |                        | Establishment:               |                   |                        |
| White                 | 458               | 269*                   | Crop production              | 458               | 255*                   |
| Hispanic              | 366               | 250*                   | Livestock production         | 368               | 277*                   |
| Black and other       | 91                | 269*                   | Other                        |                   |                        |
| Age (years):          |                   |                        | Census region:               |                   |                        |
| Less than 20          | 133               | 106*                   | Northeast                    | 64                | 240*                   |
| 20-24                 | 116               | 243*                   | South                        | 275               | 250*                   |
| 25-34                 | 224               | 276*                   | Midwest                      | 167               | 240*                   |
| 35-44                 | 185               | 312*                   | West                         | 369               | 272*                   |
| 45-54                 | 122               | 280*                   | Status:                      |                   |                        |
| 55 and older          | 95                | 250*                   | Part-time                    | 162               | 100*                   |
|                       |                   |                        | Full-time                    | 713               | 288*                   |

\*Significantly different from all hired farmworkers at the 95-percent confidence level.

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

minimum wage does not indicate widespread labor law violations by farm employers.

In 1998, about 25 percent of all hired farmworkers and 22 percent of full-time farmworkers earned less than \$5.15 an hour—the Federal minimum wage.<sup>8</sup> In comparison, 6 percent of all wage and salary workers and 5 percent of all full-time wage and salary workers received less than \$5.15 an hour. Hired farmworkers earning less than the minimum wage were more likely than all hired farmworkers to be white, younger, and working in livestock production, and less likely to be located in the West (table 17).

<sup>8</sup> Workers report their earnings on the CPS as weekly earnings or hourly earnings if they were paid by the hour. Weekly earnings were converted to hourly earnings by dividing by the number of hours usually worked at the primary job. Both the calculated and reported hourly wages were used in the analysis. The U.S. Department of Labor reports are based on hourly earnings (USDOL, 1999).

## Family Income

For most hired farmworkers, earnings are a major source of family income. Those employed as hired farmworkers in their primary job had lower family incomes in 1998 than did all wage and salary workers (table 18).<sup>9</sup> About half of the hired farmworkers had family incomes of less than \$20,000, compared with only 25 percent of all wage and salary workers. These patterns remained the same for full-time workers as well. The percentages of all and full-time hired farmworkers with family incomes less than \$20,000 were among the highest of 14 major occupations (figs. 22 and 23).

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

**Table 17—Demographic characteristics of hired farmworkers earning less than the minimum wage (\$5.15 an hour), 1998**

| Characteristics                  | Annual averages                                        |                |                                                                           |                |                       |                |
|----------------------------------|--------------------------------------------------------|----------------|---------------------------------------------------------------------------|----------------|-----------------------|----------------|
|                                  | All hired farmworkers earning less than \$5.15 an hour |                | Full-time hired farmworkers earning less than \$5.15 an hour <sup>1</sup> |                | All hired farmworkers |                |
|                                  | <i>Thousands</i>                                       | <i>Percent</i> | <i>Thousands</i>                                                          | <i>Percent</i> | <i>Thousands</i>      | <i>Percent</i> |
| All                              | 218                                                    | 100            | 159                                                                       | 100            | 875                   | 100            |
| Gender                           |                                                        |                |                                                                           |                |                       |                |
| Male                             | 177                                                    | 81.3           | 138                                                                       | 86.4           | 733                   | 83.8           |
| Female                           | 41                                                     | 18.7           | 21                                                                        | 13.6           | 142                   | 16.2           |
| Racial/ethnic group:             |                                                        |                |                                                                           |                |                       |                |
| White                            | 140                                                    | 64.4*          | 87                                                                        | 54.7           | 458                   | 52.4           |
| Hispanic                         | 71                                                     | 32.6*          | 67                                                                        | 42.1           | 366                   | 41.8           |
| Black and others                 | 7                                                      | 3.0            | 5                                                                         | 3.2            | 51                    | 5.8            |
| Age (years):                     |                                                        |                |                                                                           |                |                       |                |
| Less than 20                     | 56                                                     | 25.7*          | 21                                                                        | 13.4           | 133                   | 15.2           |
| 20-24                            | 32                                                     | 14.6           | 28                                                                        | 17.6           | 116                   | 13.3           |
| 25-34                            | 40                                                     | 18.3*          | 36                                                                        | 22.7           | 224                   | 25.6           |
| 35-44                            | 34                                                     | 15.5           | 29                                                                        | 18.1           | 185                   | 21.1           |
| 45-54                            | 27                                                     | 12.7           | 22                                                                        | 14.1           | 122                   | 14.0           |
| 55 and over                      | 28                                                     | 13.2           | 22                                                                        | 14.1           | 95                    | 10.8           |
| Median age                       |                                                        | 30*            |                                                                           | 34*            |                       | 33             |
| Schooling completed:             |                                                        |                |                                                                           |                |                       |                |
| 0-4 years                        | 24                                                     | 10.8           | 21                                                                        | 13.3           | 96                    | 10.9           |
| 5-8 years                        | 40                                                     | 18.5           | 36                                                                        | 22.5           | 184                   | 21.1           |
| 9-11 years                       | 59                                                     | 27.1           | 30                                                                        | 18.6           | 218                   | 24.9           |
| 12 years <sup>2</sup>            | 53                                                     | 24.5           | 41                                                                        | 26.0           | 232                   | 26.5           |
| 13 or more years                 | 42                                                     | 19.0           | 31                                                                        | 19.6           | 145                   | 16.6           |
| Citizenship status:              |                                                        |                |                                                                           |                |                       |                |
| U.S.                             | 158                                                    | 72.8           | 103                                                                       | 64.6           | 581                   | 66.4           |
| Foreign born, not a U.S. citizen | 59                                                     | 27.2           | 56                                                                        | 35.4           | 294                   | 33.6           |
| Establishment:                   |                                                        |                |                                                                           |                |                       |                |
| Crop production                  | 90                                                     | 41.2*          | 71                                                                        | 44.7           | 458                   | 52.3           |
| Livestock production             | 110                                                    | 55.1*          | 81                                                                        | 50.6           | 368                   | 42.0           |
| Other <sup>3</sup>               | 8                                                      | 3.7            | 7                                                                         | 4.7            | 49                    | 5.7            |
| Census region:                   |                                                        |                |                                                                           |                |                       |                |
| Northeast                        | 17                                                     | 7.9            | 12                                                                        | 7.6            | 64                    | 7.4            |
| South                            | 75                                                     | 34.4           | 58                                                                        | 36.2           | 275                   | 31.4           |
| Midwest                          | 54                                                     | 24.8           | 30                                                                        | 18.8           | 167                   | 19.1           |
| West                             | 71                                                     | 32.8*          | 60                                                                        | 37.4           | 369                   | 42.2           |

<sup>1</sup>Worked 35 or more hours per week as a hired farmworker.

<sup>2</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

<sup>3</sup>Other establishments refer to agricultural services.

\*Significantly different from all hired farmworkers at the 95-percent confidence level.

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

**Table 18—Family income of hired farmworkers and all wage and salary workers, 1998<sup>1</sup>**

| Income             | Annual averages   |                |                             |                |
|--------------------|-------------------|----------------|-----------------------------|----------------|
|                    | Hired farmworkers |                | All wage and salary workers |                |
|                    | <i>Thousands</i>  | <i>Percent</i> | <i>Thousands</i>            | <i>Percent</i> |
| Totals             | 875               | 100            | 116,882                     | 100            |
| Less than \$10,000 | 221               | 25.2*          | 17,473                      | 15.0           |
| \$10,000-\$19,999  | 213               | 24.3*          | 11,186                      | 9.6            |
| \$20,000-\$29,999  | 154               | 17.7*          | 15,108                      | 12.9           |
| \$30,000-\$39,999  | 107               | 12.2           | 15,224                      | 13.0           |
| \$40,000-\$49,999  | 67                | 7.7*           | 12,432                      | 10.6           |
| \$50,000 or more   | 113               | 12.9*          | 45,459                      | 38.9           |

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

\*Significantly different from all wage and salary workers at the 95-percent confidence level.

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

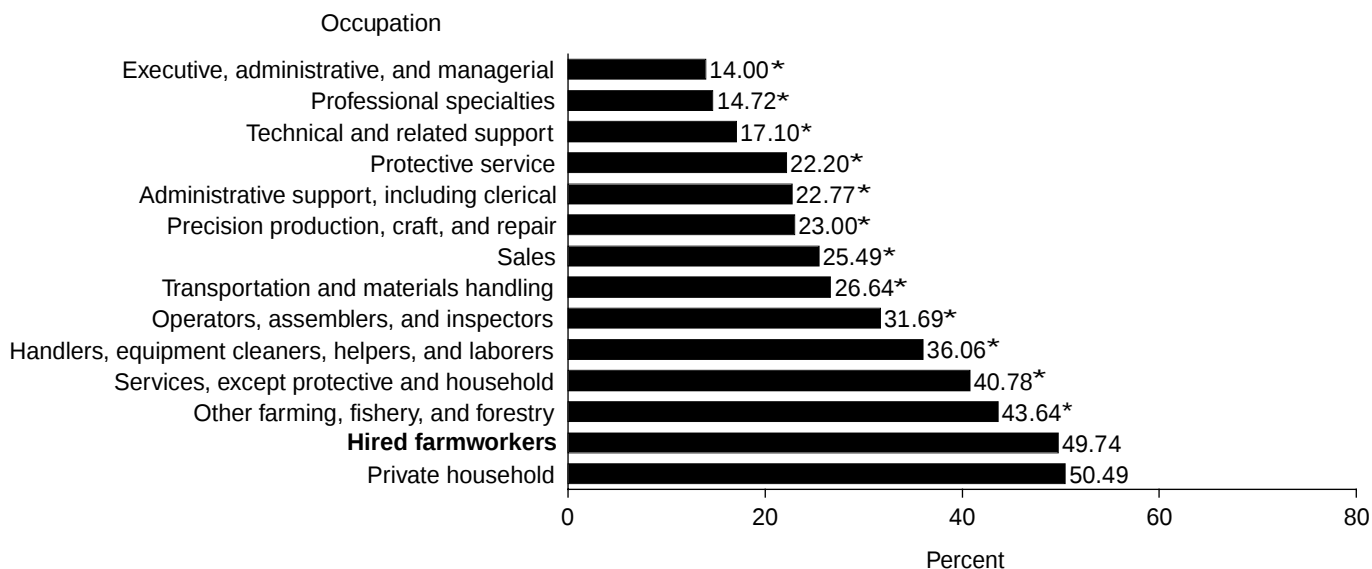
## Low-Wage Workers

Low-wage workers were defined as those 25 years of age and over who earned less than the official U.S. 1998 weighted poverty threshold for a family of four (\$16,655). In 1998, about 55 percent of hired farmworkers were classified as low-wage based on this definition. Hired farmworkers had higher proportions of low-wage workers than most other occupations (except for private household, and services, except protective and household) (fig. 24).

Among full-time hired farmworkers, the proportion of low-wage workers was lower (45 percent) than for all workers (fig. 25).

More than half (55 percent) of the low-wage hired farmworkers were Hispanic, over 64 percent had completed less than 12 years of education, over 60 percent were working in crop production, and almost 57 percent were U.S. citizens (table 19). Also, over half had family incomes less than \$15,000 in the last 12 months.

Figure 22

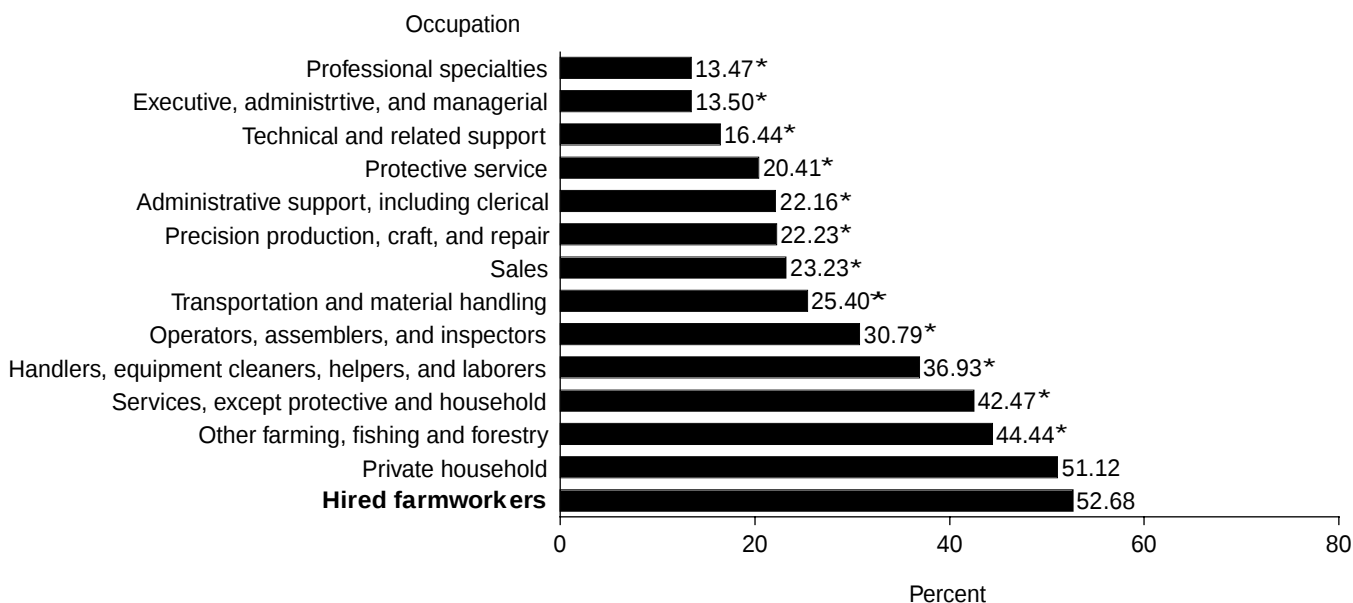
**Percent of all wage and salary workers with family incomes less than \$20,000, by occupation, 1998<sup>1</sup>**

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

\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 23

**Percent of full-time wage and salary workers with family incomes less than \$20,000, by occupation, 1998<sup>1</sup>**

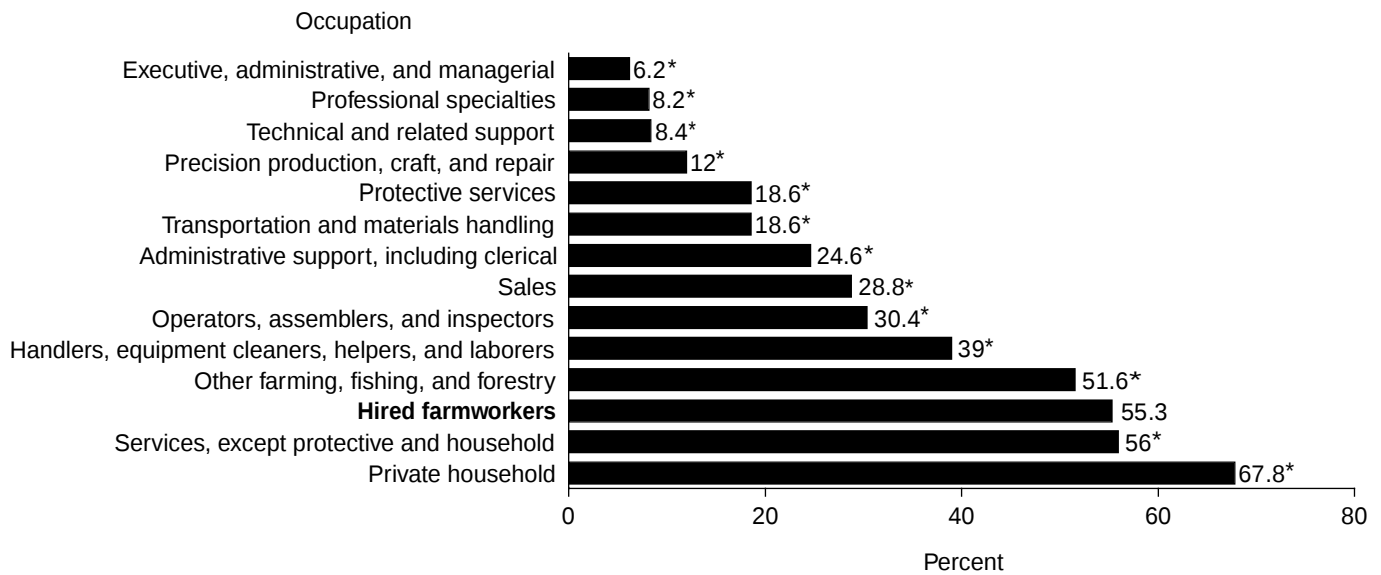
<sup>1</sup>Combined income of all family members during the last 12 months. Includes money from jobs; net income from businesses, farms, and rents; pensions, dividends, interest, and social security payments; and any other money income received by family members who are 15 years of age and older.

\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 24

**Percent of all workers who are low-wage, by occupation, 1998**

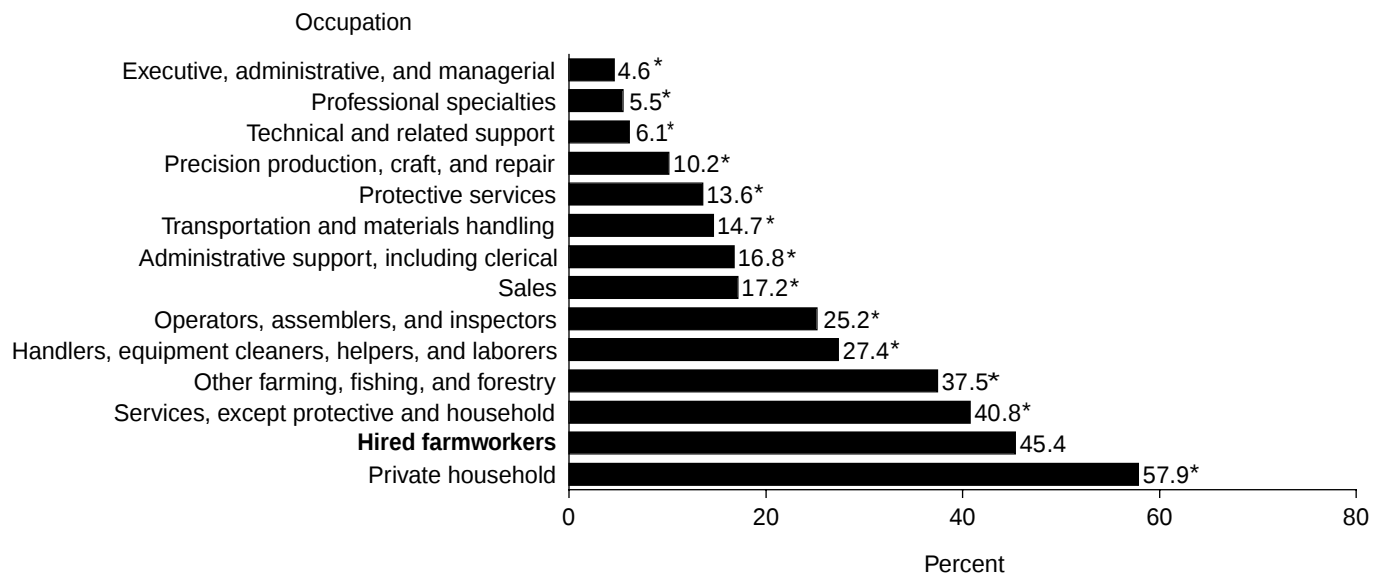


\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

Figure 25

**Percent of full-time workers who are low-wage, by occupation, 1998**



\*Significantly different from hired farmworkers at the 95-percent confidence level.

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

**Table 19—Demographic characteristics of low-wage hired farmworkers, compared with all hired farmworkers, 1998**

| Characteristics       | Annual averages                         |                |                                                 |                |
|-----------------------|-----------------------------------------|----------------|-------------------------------------------------|----------------|
|                       | Low-wage hired farmworkers <sup>1</sup> |                | All hired farmworkers 25 years of age and older |                |
|                       | <i>Thousands</i>                        | <i>Percent</i> | <i>Thousands</i>                                | <i>Percent</i> |
| Total                 | 346                                     | 100.0          | 626                                             | 100.0          |
| Gender:               |                                         |                |                                                 |                |
| Male                  | 272                                     | 78.7           | 518                                             | 82.7           |
| Female                | 74                                      | 21.3           | 108                                             | 17.3           |
| Racial/ethnic group:  |                                         |                |                                                 |                |
| White                 | 132                                     | 38.2*          | 301                                             | 48.1           |
| Hispanic              | 190                                     | 54.8*          | 282                                             | 45.0           |
| Black and other       | 24                                      | 7.0            | 43                                              | 6.9            |
| Age (years):          |                                         |                |                                                 |                |
| Less than 20          | —                                       | —              | —                                               | —              |
| 20-24                 | —                                       | —              | —                                               | —              |
| 25-34                 | 132                                     | 38.1           | 224                                             | 35.8           |
| 35-44                 | 84                                      | 24.2           | 185                                             | 29.4           |
| 45-54                 | 72                                      | 21.1           | 122                                             | 19.6           |
| 55 and over           | 58                                      | 16.6           | 95                                              | 15.2           |
| Median age            | 39                                      |                | 39                                              |                |
| Schooling completed:  |                                         |                |                                                 |                |
| 0-4 years             | 52                                      | 15.1           | 78                                              | 12.6           |
| 5-8 years             | 102                                     | 29.3           | 147                                             | 23.5           |
| 9-11 years            | 68                                      | 19.8           | 112                                             | 17.8           |
| 12 years <sup>2</sup> | 74                                      | 21.5           | 176                                             | 28.0           |
| 13 or more years      | 50                                      | 14.3           | 113                                             | 18.1           |
| Citizenship status:   |                                         |                |                                                 |                |
| U.S. citizen          | 196                                     | 56.8*          | 405                                             | 64.7           |
| Not U.S. citizen      | 150                                     | 43.2*          | 221                                             | 35.3           |
| Establishment:        |                                         |                |                                                 |                |
| Crop production       | 208                                     | 60.1           | 339                                             | 54.2           |
| Livestock production  | 116                                     | 33.5           | 248                                             | 39.6           |
| Other                 | 22                                      | 6.4            | 39                                              | 6.2            |
| Census region:        |                                         |                |                                                 |                |
| Northeast             | 23                                      | 6.6            | 42                                              | 6.7            |
| South                 | 120                                     | 34.8           | 216                                             | 34.5           |
| Midwest               | 35                                      | 10.2           | 85                                              | 13.5           |
| West                  | 168                                     | 48.4           | 283                                             | 45.3           |

<sup>1</sup>Low-wage workers are workers 25 years of age and older earning less than the official U.S. 1998 weighted poverty threshold for a family of four (\$16,655).

<sup>2</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

\* Significantly different from all hired farmworkers 25 years of age and older at the 95-percent confidence level.

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

## References

- Bowie, Chester E., Lawrence Cahoon, and Elizabeth A. Martin. "Evaluating Change in Estimates." *Monthly Labor Review*. U.S. Department of Labor, Bureau of Labor Statistics. Vol. 116, No. 9. Sept. 1993.
- Bregger, John E., and Cathryn S. Dipbo. "Why Is It Necessary to Change?" *Monthly Labor Review*. U.S. Department of Labor, Bureau of Labor Statistics. Vol. 116, No. 9. Sept. 1993.
- Denton, Beckie Mullin. "Community Response to the Introduction of Hispanic Migrant Agricultural Workers into Central Kentucky." Presented at Pennsylvania State University and U.S. Department of Agriculture, Economic Research Service Conference: "The Dynamics of Hired Farm Labor: Constraints and Community Response." Oct. 25-26, 1999.
- Emerson, Robert D., and Fritz Roka. "Income Distribution and Farm Labor Markets." Presented at Pennsylvania State University and U.S. Department of Agriculture, Economic Research Service Conference: "The Dynamics of Hired Farm Labor: Constraints and Community Response." Oct. 25-26, 1999.
- Martin, Philip. "Agriculture, Immigration, and Integration in the San Joaquin Valley." Presented at the Immigration and Changing Face of Rural California Conference. Sept. 10-12, 1998.
- Mason, Bert. "The Raisin Grape Industry." Paper presented at the Immigration and Changing Face of Rural California Conference. Sept. 10-12, 1998.
- Mines, Richard, and Rafael Alarcon. "Family Settlement and Technological Change in Labor-intensive U.S. Agriculture." Presented at Pennsylvania State University and U.S. Department of Agriculture, Economic Research Service Conference: "The Dynamics of Hired Farm Labor: Constraints and Community Response." Oct. 25-26, 1999.
- 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. Department of Labor, Bureau of Labor Statistics. Vol. 116, No. 9. Sept. 1993.
- Roka, Fritz, and Robert Emerson. "Demographic, Income and Choices of Seasonal Farmworkers in Southwest Florida." Presented at Pennsylvania State University and U.S. Department of Agriculture, Economic Research Service Conference: "The Dynamics of Hired Farm Labor: Constraints and Community Response." Oct. 25-26, 1999.
- Runyan, Jack L. *A Profile of Hired Farmworkers, 1994 Annual Averages*. AER-748, U.S. Department of Agriculture, Economic Research Service. Feb. 1997.
- Runyan, Jack L. *A Profile of Hired Farmworkers, 1996 Annual Averages*. AER-762, U.S. Department of Agriculture, Economic Research Service. Apr. 1998.
- Runyan, Jack L. *A Summary of Rules and Regulations Affecting Farm Employment: 2000*. AH-719, U.S. Department of Agriculture, Economic Research Service. July 2000.
- Thilmany, Dawn. "The Dynamics of the Washington Farm Labor Market." Presented at Pennsylvania State University and U.S. Department of Agriculture, Economic Research Service Conference: "The Dynamics of Hired Farm Labor: Constraints and Community Response." Oct. 25-26, 1999.
- U.S. Department of Agriculture. *Farm Labor*. National Agricultural Statistics Service. Various issues.
- U.S. Department of Agriculture. *1997 Census of Agriculture*. National Agricultural Statistics Service.
- U.S. Department of Labor. *Monthly Labor Review*. U.S. Department of Labor, Bureau of Labor Statistics. Vol. 116, No. 9. Sept. 1993.
- U.S. Department of Labor. *Employment and Earnings*. U.S. Department of Labor, Bureau of Labor Statistics. Vol. 46, No. 1. Jan. 1999.

## Glossary

**Wage and salary workers**—Persons 15 years of age and older who during the survey week:

- 1) did any work as paid employees; or
- 2) 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.

**Unemployed persons**—Persons 15 years of age and older who, during the survey week:

- 1) were unemployed-on layoff; or
- 2) were unemployed-looking for employment.

**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 1998.

**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 non-white persons and other groups such as African-Americans, Indians, Chinese, Japanese, and other groups not of Hispanic origin.

**Education**—Refers to the highest level of school completed or the highest degree received. Beginning January 1992, education level was revised to reflect degrees or diplomas received rather than years of school completed. Despite this change, the label used to describe education levels, “years of schooling completed,” remained the same.

**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 another part having earnings below the median. “Earnings” refers to the weekly earnings the farmworker usually earns at a farm job, before deductions, and includes over-time 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.

**Family income**—Combined income of all family members during the past 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.

**Census regions**—The census regions and their States are:

**Northeast**—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

**South**—Alabama, Arkansas, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

**Midwest**—Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

**West**—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming (U.S. Department of Labor. *Employment and Earnings*. Jan. 1999).

**Appendix table 1—Demographic and earnings characteristics of hired farmworkers, 1990-1998**

| Characteristics                      | Annual averages |        |       |       |                   |                   |       |      |      |
|--------------------------------------|-----------------|--------|-------|-------|-------------------|-------------------|-------|------|------|
|                                      | 1990            | 1991   | 1992  | 1993  | 1994 <sup>1</sup> | 1995 <sup>1</sup> | 1996  | 1997 | 1998 |
| <i>Thousands</i>                     |                 |        |       |       |                   |                   |       |      |      |
| Number of workers                    | 886             | 884    | 848   | 803   | 793               | 849               | 906   | 889  | 875  |
| <i>Percent</i>                       |                 |        |       |       |                   |                   |       |      |      |
| Total                                | 100             | 100    | 100   | 100   | 100               | 100               | 100   | 100  | 100  |
| Gender:                              |                 |        |       |       |                   |                   |       |      |      |
| Male                                 | 82.9            | 82.4   | 83.8  | 84.7  | 83.7              | 84.5              | 84.2  | 83.3 | 83.8 |
| Female                               | 17.1            | 17.6   | 16.2  | 15.3  | 16.3              | 15.5              | 15.8  | 16.7 | 16.2 |
| Racial/ethnic group:                 |                 |        |       |       |                   |                   |       |      |      |
| White                                | 61.0*           | 60.3*  | 59.7* | 57.5  | 51.3              | 53.5              | 58.9* | 52.4 | 52.4 |
| Hispanic                             | 29.4*           | 28.3 * | 30.7* | 33.6* | 41.3              | 41.1              | 36.0* | 41.0 | 41.8 |
| Black and other                      | 9.6*            | 11.4*  | 9.6*  | 8.9*  | 7.4               | 5.3               | 5.1   | 6.6  | 5.8  |
| Age (years):                         |                 |        |       |       |                   |                   |       |      |      |
| Less than 25                         | 31.5            | 25.0   | 24.7  | 27.2  | 28.0              | 30.1              | 27.9  | 30.7 | 28.4 |
| 25-44                                | 47.6            | 51.6*  | 52.6* | 51.1  | 48.8              | 44.2              | 46.0  | 45.6 | 46.7 |
| 45-59                                | 14.4            | 15.1   | 16.3  | 16.2  | 17.2              | 18.2              | 19.1  | 17.1 | 17.8 |
| 60 and older                         | 6.5             | 8.3    | 6.4   | 5.5   | 6.0               | 7.5               | 7.0   | 6.6  | 7.1  |
| Marital status:                      |                 |        |       |       |                   |                   |       |      |      |
| Married                              | 53.3            | 53.4   | 53.5  | 51.8  | 58.5*             | 58.5*             | 56.3  | 52.1 | 51.9 |
| Widowed, divorced,<br>or separated   | 8.9             | 11.2   | 10.1  | 9.5   | 8.7               | 7.5               | 8.1   | 8.4  | 9.3  |
| Never married                        | 37.8            | 35.4   | 36.4  | 38.6  | 32.8*             | 34.0              | 35.6  | 39.5 | 38.8 |
| Schooling completed: <sup>2</sup>    |                 |        |       |       |                   |                   |       |      |      |
| 0-4 years                            | 11.1            | 11.5   | 14.1  | 16.4* | 13.4              | 14.2              | 13.1  | 12.2 | 10.9 |
| 5-8 years                            | 21.6            | 21.2   | 16.0* | 17.4  | 22.9              | 22.5              | 19.9  | 22.1 | 21.1 |
| 9-11 years                           | 22.8            | 22.6   | 27.0  | 21.8  | 22.7              | 22.7              | 24.2  | 24.8 | 24.9 |
| 12 years                             | 31.4            | 31.0   | 26.9  | 27.0  | 25.9              | 25.9              | 25.4  | 22.3 | 26.5 |
| 13 years or more                     | 13.1            | 13.7   | 16.0  | 17.4  | 15.6              | 14.7              | 17.4  | 18.6 | 16.6 |
| <i>1998 Dollars</i>                  |                 |        |       |       |                   |                   |       |      |      |
| Median weekly earnings: <sup>3</sup> |                 |        |       |       |                   |                   |       |      |      |
| Full-time workers <sup>4</sup>       | 299             | 290    | 279   | 282   | 275               | 278               | 291   | 281  | 288  |
| All workers                          | 249             | 251    | 238   | 248   | 262               | 257               | 260   | 254  | 260  |

<sup>1</sup>Revised.

<sup>2</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

<sup>3</sup>Median earnings are in 1998 dollars.

<sup>4</sup>Full-time workers usually work 35 or more hours per week.

\*Significantly different from percentage shown for 1998 at the 95-percent confidence level. Levels of significance were not estimated for median earnings.

Note: Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

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, 1990-1998**

| Characteristics                      | Annual averages     |         |         |         |                   |                   |         |         |        |
|--------------------------------------|---------------------|---------|---------|---------|-------------------|-------------------|---------|---------|--------|
|                                      | 1990                | 1991    | 1992    | 1993    | 1994 <sup>1</sup> | 1995 <sup>1</sup> | 1996    | 1997    | 1998   |
|                                      | <i>Thousands</i>    |         |         |         |                   |                   |         |         |        |
| Number of workers                    | 104,351             | 103,166 | 104,054 | 105,407 | 108,166           | 110,220           | 112,142 | 114,691 | 16,882 |
|                                      | <i>Percent</i>      |         |         |         |                   |                   |         |         |        |
| Total                                | 100                 | 100     | 100     | 100     | 100               | 100               | 100     | 100     | 100    |
| Gender:                              |                     |         |         |         |                   |                   |         |         |        |
| Male                                 | 52.7*               | 52.5    | 52.2    | 52.1    | 52.4              | 52.4              | 52.2    | 52.2    | 52.2   |
| Female                               | 47.3*               | 47.5    | 47.8    | 47.9    | 47.6              | 47.6              | 47.8    | 47.8    | 47.8   |
| Racial/ethnic group:                 |                     |         |         |         |                   |                   |         |         |        |
| White                                | 78.3*               | 78.1*   | 77.9*   | 77.7*   | 76.3*             | 76.2*             | 75.0*   | 74.0*   | 73.4   |
| Hispanic                             | 7.9*                | 8.0 *   | 8.0*    | 8.2*    | 9.3*              | 9.5*              | 9.7*    | 10.4    | 10.6   |
| Black and other                      | 13.8*               | 13.9*   | 14.1*   | 14.1*   | 14.4 *            | 14.3*             | 15.3*   | 15.6*   | 16.0   |
| Age (years):                         |                     |         |         |         |                   |                   |         |         |        |
| Less than 25                         | 15.8*               | 17.2*   | 16.7    | 16.6    | 17.1*             | 16.8              | 16.2*   | 16.4*   | 16.7   |
| 25-44                                | 56.5*               | 55.4*   | 55.2*   | 54.7*   | 54.3*             | 53.9*             | 53.8*   | 53.0*   | 52.1   |
| 45-59                                | 21.8*               | 21.7*   | 22.5*   | 23.2*   | 23.4*             | 24.0*             | 24.7*   | 25.4*   | 25.9   |
| 60 and older                         | 5.9*                | 5.7*    | 5.6*    | 5.5*    | 5.2               | 5.3               | 5.3     | 5.2     | 5.3    |
| Marital status:                      |                     |         |         |         |                   |                   |         |         |        |
| Married                              | 58.2*               | 58.5*   | 58.3*   | 58.2*   | 57.9*             | 58.0*             | 58.0*   | 57.0*   | 56.4   |
| Widowed, divorced,<br>or separated   | 14.3*               | 14.3*   | 15.4*   | 14.6    | 14.5              | 14.4*             | 14.5    | 14.6    | 14.7   |
| Never married                        | 27.5*               | 27.2*   | 27.2*   | 27.1*   | 27.6*             | 27.6*             | 27.5*   | 28.4*   | 28.9   |
| Schooling completed: <sup>2</sup>    |                     |         |         |         |                   |                   |         |         |        |
| 0-4 years                            | 1.0*                | 0.9*    | 0.9*    | 0.8     | 0.8               | 0.8               | 0.7*    | 0.8     | 0.8    |
| 5-8 years                            | 4.0*                | 3.7*    | 3.0*    | 2.8     | 2.8               | 2.7               | 2.7     | 2.8     | 2.7    |
| 9-11 years                           | 10.8*               | 10.2    | 10.1    | 9.8*    | 9.5*              | 9.5*              | 9.7*    | 10.0    | 10.2   |
| 12 years                             | 39.4*               | 39.2*   | 35.0*   | 34.4*   | 33.3*             | 32.7*             | 32.4*   | 32.4*   | 31.8   |
| 13 years or more                     | 44.8*               | 46.0*   | 51.0*   | 52.2*   | 53.6*             | 54.3              | 54.4    | 54.0*   | 54.5   |
|                                      | <i>1998 Dollars</i> |         |         |         |                   |                   |         |         |        |
| Median weekly earnings: <sup>3</sup> |                     |         |         |         |                   |                   |         |         |        |
| Full-time workers <sup>4</sup>       | 504                 | 511     | 511     | 513     | 528               | 513               | 500     | 508     | 520    |
| All workers                          | 449                 | 440     | 440     | 451     | 440               | 428               | 430     | 439     | 456    |

<sup>1</sup>Revised.

<sup>2</sup>Schooling completed: 12 years means that a person received a high school diploma, GED, or equivalent degree.

<sup>3</sup>Median earnings are in 1998 dollars.

<sup>4</sup>Full-time workers usually work 35 or more hours per week.

\*Significantly different from percentage shown for 1998 at the 95-percent confidence level. Levels of significance were not estimated for median earnings.

Note: Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

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