State of Arkansas Forestry Survey 1997-98

This summary provides results of a 1997-98 survey of occupational pay in the forestry industry in the State of Arkansas. This study was conducted by the Bureau of Labor Statistics at the request of the Employment Standards Administration, U.S. Department of Labor, for use in administering the Service Contract Act of 1965.

Hourly wage rates for various occupational classifications are presented in table 1 of this summary. The workers within the scope of this study are nonsupevisory blue-collar workers. To reflect the seasonality of activities in this industry, data for tree planting occupations relate to February 1998 and data for all other occupations relate to August 1997. Also contained in this summary is a technical note describing survey procedures and information on the number of establishments and workers studied.

The survey could not have been conducted without the cooperation of the many private establishments that provided pay data included in this summary. The Bureau thanks these respondents for their cooperation.

Survey data were collected and reviewed by Bureau of Labor Statistics field economists. The Office of Compensation and Working Conditions, in cooperation with the Office of Field Operations and the Office of Technology and Survey Processing in the BLS National Office, designed the survey, processed the data, and analyzed the survey results.

Where to find more information

For additional information regarding this survey, including a list of occupational classifications, please contact the BLS Dallas Regional Office at (214) 767-6970. You may also write to the Bureau of Labor Statistics at: Division of Compensation Data Analysis and Planning, 2 Massachusetts Avenue, NE, Room 4175, Washington, DC 20212-0001, or telephone (202) 606-6220, or send e-mail to ocltinfo@bls.gov. The data contained in this summary are also available on the Internet's World Wide Web through the BLS site (**http://stats.bls.gov/comhome.htm**).

Table 1. Hourly earnings[1] for selected occupations in the forestry industry[2], Arkansas, 1997-1998

Occupation	Number of workers	Mean
Tree planting occupations		
Forestry heavy equipment operators:		
Tractor operators, planting	–	–
Tree planters	336	$9.81
Tree planters, mechanical	–	–
Other than tree planting occupations		
Brush/precommercial thinners	–	–
Fire lookouts	–	–
Forestry heavy equipment operators	–	–
Tractor operators, site preparation	–	–
Tractor operators, thinning	–	–
Other heavy equipment operators	–	–
Forestry technicians	–	–
Forestry truck drivers	–	–
Light truck	–	–
Medium truck	–	–
Heavy truck	–	–
Tractor-trailer	–	–
Combination of sizes	–	–
General forestry laborers	–	–

[1] Earnings are the straight-time hourly wages or salaries paid to employees. They include incentive pay, cost-of-living adjustments, and hazard pay. Excluded are premium pay for overtime, vacations, holidays, nonproduction bonuses, and tips. The mean is computed by totaling the pay of all workers and dividing by the number of workers, weighted by hours. The 10th, 25th, 50th, 75th and 90th percentiles designate position in the earnings distribution. At the 50th percentile, the median, half of the workers receive the same as or more than the rate shown, and half receive the same as or less than the rate shown. At the 25th percentile, one-fourth of the workers earn the same as or less than the rate shown. At the 75th percentile, one-fourth earn the same as or more than the rate shown. The 10th and 90th percentiles follow the same logic.

[2] The *1987 Standard Classification Manual* was used in classifying establishments.

NOTE: Dashes indicate that no data were reported or that data did not meet publication criteria. Overall occupations may include data for categories not shown separately.

Appendix: Technical Note

Survey planning

Survey scope

This survey of the State of Arkansas covered establishments employing 4 or more workers in the forestry industry (industry 08, as defined in the 1987 *Standard Industrial Classification Manual).* Christmas tree farms were excluded from the survey.

The list of establishments from which the survey sample was selected (sampling frame) was developed from the State unemployment insurance reports. The reference month of the sampling frame for tree planting occupations was February 1997; the reference month for all other occupations was August 1997. The sampling frame was reviewed prior to the survey, and when necessary, missing establishments were added, out-of-business and out-of-scope establishments were removed, and addresses, employment levels, industry classification, and other information were updated.

Sample design

The sample for this survey area was selected using a stratified design with probability proportional to employment. The sample of establishments was drawn by first stratifying the sampling frame by industry. The number of sample establishments allocated to each stratum is approximately proportional to the stratum employment. Use of this technique means that the larger an establishment's employment, the greater its chance of selection. Weights were applied to each establishment when the data were tabulated so that the sample units within each sampling stratum represent all units in the stratum, both sampled and nonsampled.

Data collection

BLS field economists collected the data. They contacted each establishment, primarily by telephone. Wage data were collected for all workers who met the characteristics of the specific occupations studied. Classification of workers by occupation was based on a uniform set of job descriptions designed to take account of variation among establishments in duties within the same occupation. The job descriptions used in the survey are available upon request.

Collection period

The survey was collected from July 1998 to October 1998. To reflect the seasonality of the occupations studied, data for tree planting occupations relate to February 1998 and data for all other occupations relate to August 1997. If February was not representative of the establishment's tree planting season, a more representative payroll period was obtained. Wages were collected twice for a worker doing different jobs during each reference period. For example, a tree planter during the tree planting season and a general forestry laborer during the remainder of the year would have wages collected twice.

Earnings

Earnings were defined as regular payments from the employer to the employee as compensation for straight-time hourly work, or for any salaried work performed. The following components were included as part of earnings:

- Incentive pay, including commissions, production bonuses, and piece rates
- Cost-of-living allowances
- Hazard pay
- Payments of income deferred due to participation in a salary reduction plan
- Deadhead pay, defined as pay given to transportation workers returning in a vehicle without freight or passengers.

The following forms of payments were *not* considered part of straight-time earnings:

- Shift differentials, defined as extra payment for working a schedule that varies from the norm, such as night or weekend work
- Premium pay for overtime, holidays, and weekends
- Bonuses not directly tied to production (e.g., Christmas bonuses, profit-sharing bonuses)
- Uniform and tool allowances
- Free room and board
- Payments made by third parties (e.g., tips,)
- On-call pay.

Processing and analyzing the data

Weighting and nonresponse

Sample weights were calculated for each establishment in the survey. These weights reflected the relative size of the establishment within the sample universe. Weights were used to aggregate the individual establishment into the various occupational series.

Of the establishments surveyed, 5.6 percent refused to supply information. If data were not provided by a sample member, the weights of responding sample members in the same or similar "cells" were adjusted to account for the missing data. This technique assumes that the mean value of the nonrespondents equals the mean value of the respondents at some detailed "cell" level. Responding and nonresponding establishments were classified into these cells according to industry and employment size.

Establishments that were determined to be out of business or outside the scope of the survey (5.6 percent of the total sample) had their weights changed to zero.

Estimation

The wage series in the tables are computed by combining the wages for individual establishments. Before being combined, individual wage rates were weighted by the number of workers at that rate and the sample weights adjusted for nonresponding establishments.

A sample of 18 establishments employing 850 workers was selected to represent 39 establishments employing 1,028 workers, the estimated total of establishments and workers in the forestry industry in the State of Arkansas. The estimated number of total and sampled workers was determined by the establishment's maximum seasonal employment in one of the two reference periods studied, and includes those workers specifically studied, as well as workers in all other occupations in the industry.

Not all series that were calculated met the criteria for publication. Before any series was published, it was reviewed to make sure that the number of observations underlying it was sufficient. This review prevented publishing a series that could have revealed information about a specific establishment.

Data reliability

The data in this summary are estimates from a scientifically selected probability sample. There are two types of errors possible in an estimate based on a sample survey, sampling and nonsampling.

Sampling errors occur because observations come only from a sample and not from an entire population. The sample used for this survey is one of a number of possible samples of the same size that could have been selected using the sample design. Estimates derived from the different samples would differ from each other. Sampling errors were not computed for this survey.

Nonsampling errors also affect survey results. They can stem from many sources, such as inability to obtain information for some establishments, difficulties with survey definitions, inability of the respondents to provide correct information, or mistakes in recording or coding the data obtained. A Technical Reinterview Program done in all survey areas will be used in the development of a formal quality assessment process to help control the magnitude of nonsampling error. Although they also were not specifically measured, efforts were made to minimize nonsampling errors by the extensive training of the field economists who gathered the survey data, computer edits of the data, and detailed data review.