

# Volume III—Part 2—Chapter 3

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# Chapter 3. Hired Farm Workers for Farms With \$10,000 or More Expenditure for Hired Labor

**Introduction**--This chapter contains data for the number of hired farm workers and hours of farmwork by them for the 44,000 farms with an expenditure of \$10,000 or more for hired farm labor in 1964. The data shown provides the number as well as the hours worked at hired farmwork by weeks, by economic class, and by type of farm.

**Definition of a farm**--The farms for this survey were selected from farms counted in the 1964 Census of Agriculture. See page 8 for the farm definition.

**Hours of work**--The farm operator was asked to report for each weekly reporting period, the hours worked at farmwork by hired farm workers on the farm. Farmwork was to include work in the fields, milking, care and feeding of livestock and poultry, care and repair of equipment and buildings, keeping farm records, and planning and supervising farmwork. Persons not receiving wages or salaries and their hours of farmwork are not included.

**Economic class of farm**--The farms included in this survey were assigned to the economic class in which they were classified in the 1964 Census of Agriculture. See page 9 for a description of the economic classes of farms for the 1964 census.

**Type of farm**--The farms were assigned to the same type of farm group in which they were classified in the 1964 Census of Agriculture. The farms in each type of farm group include not only commercial farms, but also a few part-time and part-retirement farms. For a description of the types of farms, see page 10.

**Explanation and definitions for items for the 1964 Census of Agriculture**--The data for land in farms, cropland harvested, expenditures for hired farm labor, number of regular hired workers, expenditure for machine hire, farms by tenure of operator, and farms by size are estimates for 1964 for the farms included in the survey. For explanations and definitions regarding these items, see pages 8 and 9.

**Description of sample**--The sample used for the special survey of hired farm workers was selected almost entirely from farms having a farm expenditure of \$10,000 or more for hired farm labor, in 1964. Abnormal farms were excluded from the survey.

The sampling rate varied according to expenditures for hired farm labor in 1964. The sampling rates were as follows:

<i>Expenditures for hired farm labor</i>	<i>Sampling rate</i>
\$100,000 or more. . . . .	1 out of 1
\$50,000 to \$99,999 . . . . .	1 out of 3
\$20,000 to \$49,999 . . . . .	1 out of 10
\$10,000 to \$19,999 . . . . .	1 out of 20

The sample of farms with an expenditure of \$100,000 or more for hired farm labor, was selected from all counties and included, in addition, any farms with an expenditure of \$100,000 or more for hired farm labor in 1959. The sample of farms with an expenditure of \$10,000 to \$99,999 for hired farm labor was selected from 508 primary sampling units comprising 1,388 counties.

**Collection of data**--The questionnaire used for the survey (see page 184) asked for the number of hired farmworkers and hours of work for each week. The questionnaire asked also the number of hired farm workers employed by period of payment and also for information as to whether contract workers and their hours of work were included in the report.

Each questionnaire covered a period of 4 or 5 weeks and 12 questionnaires covering a period of 52 weeks (April 1965 to March 1966) were obtained from each farm. The questionnaires were mailed to each farm at the end of each 4 or 5-week reporting period.

During the survey period, approximately 80 percent of the required reports were obtained by mail. After the end of the reporting period, reports that had not been obtained by mail were obtained by telephone by an experienced interviewer or by a personal visit by an experienced interviewer.

**Office processing**--Each farm included in the survey was also included in the 1964 Census of Agriculture and in the 1965 Sample Survey of Agriculture. The review of data for each farm was performed largely by four agricultural statisticians. For the review of the data on each questionnaire, the questionnaire for the 1964 Census of Agriculture and the questionnaire for the 1965 Sample Survey of Agriculture were matched to the hired farm labor questionnaire and the information on all three questionnaires was used for the review.

The punching of cards for the information on the questionnaire was verified 100 percent and all errors found were corrected.

The punched cards were checked by a computer to determine that all cards for the 12 reporting periods were in the file, that hours worked each week did not exceed 100 times the number of workers, and that all codes and other information required for each farm were present and consistent. Errors found were corrected.

The tabulations were reviewed by an agricultural statistician for reasonableness, consistency, etc. All tabulation procedures were tested before they were used.

**Method of estimation**--The sample for this survey was selected from the questionnaires for the 1964 Census of Agriculture. At the time of the sample selection, the questionnaires for the 1964 Census of Agriculture had not been obtained or were not complete for approximately 30 percent of the farms having an expenditure for hired farm labor of \$10,000 or more. Therefore, the method of estimation was devised to make adjustment for not only the sampling rate but also for the incompleteness of the sample.

Each farm included in the sample was assigned a weight; the weight was determined by taking the ratio of the number of farms in the group according to the 1964 Census of Agriculture to the number of farms in the corresponding group in the sample. The weights were determined separately for each of the three regions, for each of the three groups of farms by economic class,

for four groups of farms grouped by amount of labor expenditure for 1964, and for each type of farm. The following table shows the number of farms for which

questionnaires were obtained and the number of farms included in the 1964 census by farm labor expenditure groups, by economic class of farm, and by type of farm.

Subject	Number of farms (according to the 1964 Census of Agriculture) with an expenditure for hired farm labor of—					Number of farms for which labor survey questionnaires were obtained, by expenditure for hired farm labor in 1964				
	Total	\$100,000 and over	\$50,000 to \$99,999	\$20,000 to \$49,999	\$10,000 to \$19,999	Total	\$100,000 and over	\$50,000 to \$99,999	\$20,000 to \$49,999	\$10,000 to \$19,999
All farms.....	44,478	1,812	3,520	13,128	26,018	34,506	1,325	2,837	9,569	20,875
Economic class of farm:										
Large-scale farms.....	20,143	1,808	3,247	7,671	7,417	14,665	1,321	2,573	5,547	5,224
Class I excluding large-scale farms.....	17,317	3	252	4,797	12,265	13,583	3	229	3,440	10,011
Class II to VI, part-time and part-retirement farms.....	7,018	1	21	660	6,336	6,258	1	35	582	5,640
Type of farm:										
Cash-grain.....	2,560	27	71	565	1,897	2,242	22	59	376	1,785
Tobacco.....	505	28	28	123	326	576	26	18	112	420
Cotton.....	5,469	104	303	1,615	3,447	4,299	83	305	1,131	2,780
Other field-crop.....	3,120	129	256	967	1,768	2,677	104	140	842	1,591
Vegetable.....	3,506	384	493	1,196	1,433	2,954	270	512	825	1,347
Fruit and nut.....	7,509	354	698	2,396	4,061	5,936	260	615	1,826	3,235
Poultry.....	2,508	85	190	714	1,519	1,801	47	156	382	1,216
Dairy.....	4,833	63	225	1,221	3,324	3,870	59	148	912	2,751
Livestock farms other than poultry, dairy, and livestock ranches.....	3,744	106	180	1,000	2,458	2,811	68	162	874	1,707
Livestock ranches.....	2,720	40	167	854	1,659	2,418	26	90	781	1,521
General.....	3,273	120	240	940	1,973	2,263	98	189	675	1,301
Miscellaneous.....	4,731	372	669	1,537	2,153	2,759	262	443	833	1,221

**Sampling errors**--Estimated totals for data for all items are subject to sampling errors. Approximate measures of sampling errors for selected items may be obtained from table 28.

Table 28 shows percentage limits such that the chances are 2 out of 3 that the difference between an estimate based wholly or in part on a sample of farms and the figure that would have been obtained if the information had been collected for all farms would be no more than the percentage specified. The chances are about 99 out of 100 that the difference would be less than 2 1/2 times the percentage given in table 28.

Sampling errors were calculated by a random group method. In each region, each farm (except those large farms which were all included in the survey of hired farm workers) was assigned at random to one of 10 groups. The sampling errors shown in table 28 are relative errors, obtained by taking the square root of the relative variance. The sampling errors in table 28 may be overstated because no adjustments were made to take into account (1) the fact that major parts of the sample were selected within a sample of counties and the random group method of calculation would overstate the between county part of the variance and (2) that the estimates are ratio estimates as weights were assigned to individual farms so as to make the number of farms for selected groups equal to the number of farms in 1964 for the corresponding groups. For characteristics related to number of farms, the variances might be reduced by the ratio estimate; for other characteristics (aggregates such as cropland harvested), the ratio adjustment would have little effect on the variance.

**Total number of hired farm workers and hours of work**--The 44,000 farms included in the hired farm labor survey had an average of 505,000 hired farm workers per

week. These farms had 31 percent of the hired farm workers on all farms. The hours worked by hired farm workers on these 44,000 farms totaled 1.2 billion and represented 44 percent of the hours worked by hired farm workers on all farms.

**Number of hired farm workers and hours of work by economic class of farm**--About 70 percent of the hired farm workers and hours worked were on large-scale farms. Almost two-thirds of the hired farm workers and the hours worked were on the 3,500 large-scale farms having 50,000 or more hours of hired farmwork during the year. One-fifth of the total hours of farmwork performed by hired farm labor were performed on these 3,500 farms. The 16,000 large-scale farms with 10,000 or more hours of hired labor had almost one-third of the hours of hired farm labor on all farms.

**Hired workers by period of payment**--Most of the farms with hired farm workers and a large proportion of the hired workers are paid on a time basis, i.e. by the month, week, day or hour.

Period of payment	Farms		Average weekly number of hired workers	
	Number	Percent distribution	Number (1,000)	Percent distribution
Monthly.....	23,914	54.4	72	14.2
Weekly.....	38,293	86.6	52	10.3
Daily.....	15,109	34.3	60	12.0
Hourly.....	31,479	71.6	24.6	4.8
Piece rate.....	13,363	30.4	74	14.7

Some farms have workers paid on more than one period or basis; and consequently, the distribution of farms by period of payment exceeds the total number of farms.

**Number of hired farm workers and hours worked by type of farm**--The distribution of hired farm workers and hours worked by type of farm were as follows:

Type of farm	Farms	Average number of hired farm workers per week		Hours worked by hired farm workers		Regular hired workers in 1964	
		Total (1,000)	Percent distribution	Total (1,000)	Percent distribution	Total (1,000)	Percent distribution
Total.....	43,989	505	100.0	1,166,111	100.0	428	100.0
Cash-grain farms.....	2,561	15	2.9	38,373	3.3	14	3.3
Tobacco and miscellaneous farms.....	4,849	72	14.3	158,708	13.6	67	15.7
Cotton farms.....	5,813	72	14.3	165,439	14.2	62	14.5
Other field-crop farms.....	3,306	47	9.3	108,296	9.3	42	9.8
Vegetable farms.....	3,389	75	14.9	154,831	13.3	55	12.8
Fruit and nut farms.....	7,282	90	17.8	197,961	17.0	62	14.5
Poultry farms.....	2,441	25	5.0	59,055	5.1	22	5.1
Dairy farms.....	4,816	29	5.7	77,400	6.6	31	7.2
Livestock other than poultry, dairy, and livestock ranches.....	3,942	28	5.5	73,788	6.3	29	6.8
Livestock ranches.....	2,640	19	3.8	51,262	4.4	23	5.4
General farms.....	2,952	32	6.3	81,009	6.9	23	5.4

Tobacco, miscellaneous, cotton, vegetable, and fruit and nut farms accounted for almost three-fifths of all hours worked by hired farm workers.

**Number of hired farm workers and hours worked for farms classified by total hours worked by hired workers--**

The distribution of farms, number of hired farm workers, and hours worked by hired farm workers by total hours of work by hired workers per farm were as follows:

Farms with total hours worked by hired farm workers of--	Farms	Average number of hired farmworkers per week		Hours worked by hired farm workers	
		Total (1,000)	Percent distribution	Total (1,000)	Percent distribution
Total.....	43,989	505	100.0	1,166,115	100.0
0 to 4,999 hours.....	2,989	4	0.8	9,780	0.8
5,000 to 9,999 hours....	11,054	36	7.1	84,410	7.2
10,000 to 19,999 hours..	15,602	98	19.4	220,795	18.9
20,000 to 29,999 hours..	6,568	69	13.7	159,745	13.7
30,000 to 39,999 hours..	2,590	38	7.5	90,289	7.7
40,000 to 49,999 hours..	1,492	28	5.5	66,126	5.7
50,000 to 99,999 hours..	2,354	69	13.7	162,059	13.9
100,000 or more hours...	1,342	163	32.3	372,910	32.0

The 1,342 farms with 100,000 or more hours of work by hired farm workers accounted for almost one-third and 3,696 farms with 50,000 or more hours of work by hired farm workers accounted for almost half of the 1.2 billion hours worked by hired farm workers.

**Number of hired workers and hours of work not included in tables 1 to 28--**Farm operators were asked to include all hired workers working on the farm and also the total hours worked by these hired workers. However, farm operators could not always report the number of persons working under contract and under the supervision of crew leaders, labor contractors, etc., and the hours worked by these contract workers. There were 7,515 farms for which all the hired workers working under contract were not included in the number of hired workers and the hours worked. Data for these farms are given in tables 22 to 27. Almost three-fifths of these 7,515 farms were fruit and nut farms, cotton farms, and vegetable farms. The expenditures for machine hire, custom and contract work for the 1964 Census of Agriculture are the only available measure of the importance of contract work on these 7,515 farms. In 1964, the expenditure for machine hire, custom and contract work on these 7,515 farms totaled \$89,816,000. Part of this expenditure represents payment for machine hire and customwork. Moreover, some of the hours worked by contract workers on these 7,515 farms were included in the totals for tables 1 to 21. On the basis of the amount of expenditure for machine hire, custom and contract work, it is estimated that the hours of work by contract workers not included in tables 1 to 21, did not exceed 60 million hours. This total of 60 million hours would be equivalent to 5 percent of the total hours worked by all hired workers for whom hours worked were reported.