

Man-Equivalents of Labor Used

For the purpose of showing the amount of farm labor used on commercial farms, all labor was converted to a man-equivalent basis. This was necessary in order that meaningful comparisons might be made between the different types and sizes of farms.

Getting an estimate of the labor used is more difficult in agriculture than for most other industries. Farming, generally, is highly seasonal. Certain farming operations performed during the year, such as cultivating and harvesting, usually require more labor than is needed for the remainder of the year.

The seasonal needs for labor in farming vary between different types of farms and between farms in different geographic locations. Therefore, data on the number of workers, if based on any given week, are likely to be less representative of the annual average on some farms than on others. Many wives and children of farmers work part time at field work and chores. The farmer himself frequently does not work full time on the farm but may have a nonfarm job or business.

For these reasons, the total farm labor used was estimated in man-equivalents from use of other data obtained by the Census. As used in this report, a man-equivalent of labor is a relative measure of employment. The estimates are designed primarily toward the objective of securing rough comparability in the amount of labor used between types and sizes of farms. A man-equivalent, as used here, represents approximately a man-year of farm work, but no attempt is made to specify the exact number of days or hours represented.

**Operator labor.**—The farm operator was considered to be equal to 1 man-equivalent of farm labor unless he worked off the farm or was 65 years of age or older. Farm operators who worked off the farm 1 to 99 days were estimated at 0.85, those working off the farm 100 to 199 days at 0.5 and those working off the farm 200 or more days at 0.15 man-equivalents of labor. A reduction of 0.5 man-equivalents was made for each operator who was 65 years or older.

As estimated in this report, farm-operator labor per farm is a fairly constant factor in the labor force. For most types of farms his labor amounted to between 0.7 and 0.8 man-equivalents (see table 20). Operator labor on cotton and other field-crop farms was slightly higher and on fruit-and-nut farms and poultry farms was slightly lower than this range.

By economic class of farm, operator labor tended to be higher on Class I farms for most types and decreased with decreasing size of farm. For each type of farm, however, operator labor per farm was higher on Class VI than on Class V farms. This is because Class VI farms, by definition, had no operators who worked off the farm as much as 100 days. The relatively small amount of operator labor on Class VI farms is due to the higher proportion of operators who were 65 years or older.

**Unpaid family labor.**—The number of family members who were reported working 15 or more hours without pay during the specified calendar week (September 26–October 2 or October 24–30, depending on the date of enumeration) were estimated at 0.5 man-equivalents each. This reduction was made in recognition of the higher composition of children and elderly persons in the unpaid family labor force. Individually, these are not usually considered the equivalent of an able-bodied adult worker.

Unpaid family labor, as estimated, amounted only from one-fourth to one-half as much as the operator labor. The larger economic classes of farms naturally had the most operator labor. Unpaid family labor was most important on the intermediate sizes (Classes II, III, and IV); it ranged from one-third to one-half man-equivalents on most types. Highest in use of unpaid family labor were cotton, other field-crop, dairy, and general livestock farms. The lowest were fruit-and-nut, cash-grain, and other livestock farms.

TABLE 20.—AVERAGE MAN-EQUIVALENTS OF LABOR USED ON EACH TYPE OF FARM BY ECONOMIC CLASS, FOR THE UNITED STATES: 1954

Type of farm	Total	Economic class of farm					
		I	II	III	IV	V	VI
<b>All commercial farms</b> .....	1.46	5.42	1.81	1.43	1.27	1.09	1.04
Operator labor.....	0.78	0.86	0.86	0.83	0.77	0.70	0.79
Unpaid family labor.....	0.34	0.27	0.35	0.38	0.39	0.34	0.23
Hired labor.....	0.34	4.29	0.60	0.22	0.11	0.05	0.02
<b>Cash-grain</b> .....	1.23	3.07	1.51	1.23	1.00	0.83	0.93
Operator labor.....	0.77	0.89	0.87	0.82	0.70	0.60	0.77
Unpaid family labor.....	0.25	0.27	0.31	0.29	0.24	0.19	0.14
Hired labor.....	0.20	1.91	0.33	0.12	0.07	0.04	0.02
<b>Cotton</b> .....	1.70	7.76	2.51	1.93	1.68	1.40	1.21
Operator labor.....	0.86	0.90	0.87	0.87	0.87	0.84	0.86
Unpaid family labor.....	0.48	0.16	0.25	0.57	0.66	0.51	0.33
Hired labor.....	0.36	6.70	1.39	0.49	0.15	0.05	0.02
<b>Other field-crop</b> .....	1.51	8.59	2.42	1.79	1.50	1.21	1.07
Operator labor.....	0.85	0.86	0.87	0.89	0.88	0.80	0.83
Unpaid family labor.....	0.40	0.29	0.41	0.57	0.49	0.35	0.22
Hired labor.....	0.27	7.44	1.14	0.33	0.13	0.06	0.02
<b>Vegetable</b> .....	3.57	17.82	3.59	2.00	1.43	1.08	1.08
Operator labor.....	0.76	0.88	0.84	0.78	0.72	0.63	0.80
Unpaid family labor.....	0.31	0.23	0.40	0.37	0.36	0.30	0.24
Hired labor.....	2.49	16.71	2.35	0.85	0.36	0.15	0.05
<b>Fruit-and-nut</b> .....	2.46	9.01	2.63	1.61	1.12	0.86	0.98
Operator labor.....	0.64	0.80	0.74	0.65	0.56	0.49	0.72
Unpaid family labor.....	0.19	0.18	0.22	0.22	0.19	0.18	0.16
Hired labor.....	1.62	8.04	1.67	0.74	0.36	0.18	0.10
<b>Dairy</b> .....	1.44	5.36	1.97	1.46	1.25	1.05	0.99
Operator labor.....	0.77	0.86	0.86	0.83	0.76	0.66	0.75
Unpaid family labor.....	0.40	0.33	0.44	0.45	0.43	0.37	0.23
Hired labor.....	0.26	4.17	0.67	0.19	0.07	0.03	0.01
<b>Poultry</b> .....	1.16	2.71	1.43	1.13	0.94	0.77	0.81
Operator labor.....	0.65	0.83	0.77	0.67	0.59	0.51	0.65
Unpaid family labor.....	0.29	0.36	0.38	0.36	0.30	0.24	0.14
Hired labor.....	0.21	1.52	0.27	0.10	0.05	0.02	0.01
<b>Livestock other than dairy and poultry</b> .....	1.30	3.27	1.61	1.33	1.12	0.88	0.94
Operator labor.....	0.76	0.87	0.87	0.83	0.73	0.60	0.75
Unpaid family labor.....	0.26	0.28	0.32	0.31	0.27	0.21	0.16
Hired labor.....	0.28	2.12	0.42	0.19	0.12	0.07	0.03
<b>General, primarily crop</b> .....	1.61	7.93	2.07	1.53	1.25	1.00	0.96
Operator labor.....	0.76	0.86	0.85	0.82	0.77	0.65	0.75
Unpaid family labor.....	0.30	0.24	0.31	0.35	0.33	0.28	0.19
Hired labor.....	0.56	6.82	0.90	0.35	0.15	0.07	0.02
<b>General, primarily livestock</b> .....	1.29	3.79	1.69	1.42	1.26	1.05	0.91
Operator labor.....	0.79	0.82	0.88	0.86	0.79	0.68	0.70
Unpaid family labor.....	0.40	0.49	0.49	0.46	0.42	0.34	0.21
Hired labor.....	0.11	2.48	0.31	0.10	0.05	0.03	0.01
<b>General, crop and livestock</b> .....	1.37	4.33	1.74	1.42	1.26	1.07	1.04
Operator labor.....	0.81	0.87	0.88	0.86	0.80	0.70	0.77
Unpaid family labor.....	0.38	0.40	0.44	0.42	0.39	0.32	0.25
Hired labor.....	0.18	3.06	0.42	0.14	0.07	0.04	0.02
<b>Miscellaneous</b> .....	2.73	12.29	2.80	1.66	1.16	0.86	0.95
Operator labor.....	0.68	0.82	0.77	0.72	0.62	0.54	0.75
Unpaid family labor.....	0.22	0.20	0.27	0.28	0.24	0.20	0.16
Hired labor.....	1.83	11.26	1.76	0.66	0.30	0.12	0.04