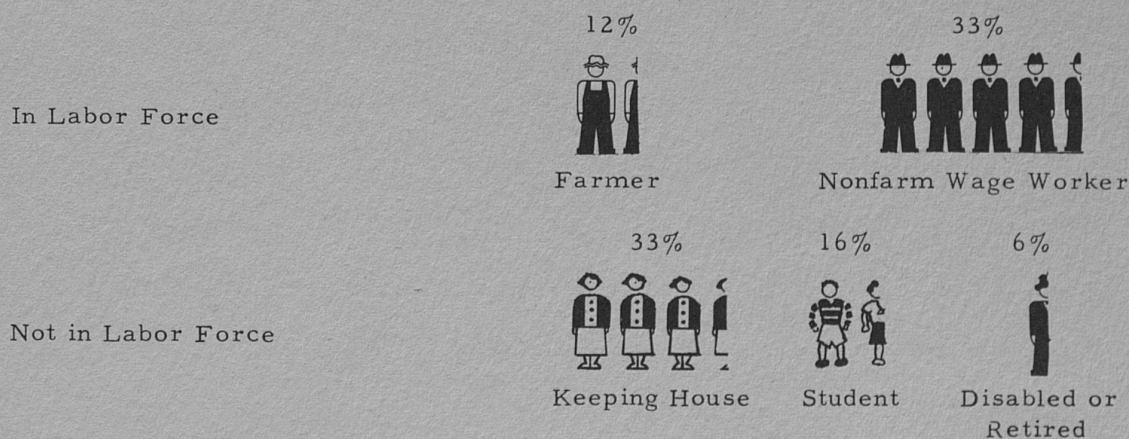


EMPLOYMENT OF RURAL MANPOWER IN THE PURCHASE AREA OF WESTERN KENTUCKY

A Study of Economic Area One

PROPORTION OF THE FARM FAMILY MEMBERS, 14 YEARS OF AGE AND OLDER,
REPORTING VARIOUS ACTIVITIES AS THEIR MAJOR ENTERPRISE DURING 1952



**AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF KENTUCKY
LEXINGTON**

**in cooperation with the
AGRICULTURAL MARKETING SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE**

C O N T E N T S

	PAGE
INTRODUCTION	1
Sample Population	3
Residence	3
Size of Family	4
Age of Family Members	5
Major Activity During the Year	6
Family Members Employed Sometime During the Year	7
FARM FAMILY AND EMPLOYMENT OF THEIR MEMBERS	8
Family Work Patterns on Family Farm	9
Working on the Home Farm	9
Daily Chores Around the House	10
Household Tasks	11
Off-farm Work	11
Work on Other than Family Farm	13
Work at Nonagricultural Employment	14
Use of the Farm Labor Force by Size of Farm	16
Days Worked by Member of Farm Families	16
Days Worked Per Farm Family	17
Exchange Work Per Farm Family	18
NONFARM FAMILIES AND THE EMPLOYMENT OF THEIR MEMBERS	19
Nonfarm Labor Force	19
Employment of Nonfarm Family Members	19
Nonfarm Family Income	20
NONAGRICULTURAL WORK EXPERIENCE OF RURAL FAMILY HEADS	22
Work Experience in 1952	22
Occupational Classification	22
Industrial Classification	23
Work Experience Between 1933 and 1952	24
Number of Occupations Followed	25
Years Followed One Occupation	26
SUMMARY AND CONCLUSIONS	27
APPENDICES	30
A. Method of Study	30
B. Explanations of Specified Terms Used in Report	31

EMPLOYMENT OF RURAL MANPOWER IN THE
PURCHASE AREA OF WESTERN KENTUCKY

(A Study of Census Economic Area One)

By Robert E. Galloway¹

INTRODUCTION

This is the second of a series of reports² based on data gathered in a study of rural families in the Purchase area³ of western Kentucky, during the spring of 1953. Information was obtained from 189 rural families which had lived in the area for at least a year and which consisted of a husband, wife, and children of school age (6-18 years of age) living at home. This stratum of rural families was selected because the sample size was limited and it was advisable to eliminate transient families from the study.⁴

With the exception of the Delta section, this is an area of small family-size commercial, owner-operated, or tenant-operated farms. More than a fifth of the farms in 1949 were less than 30 acres in size; 85 percent were less than 140 acres. Until the 1920's, the farming economy of the area was generally centered around the production of dark tobacco. But when the demand for this type of tobacco declined and acreage controls were attempted, many of the farms were too small for effective and economic operation. Many farm operators got nonfarm employment outside the area. Often their farms were combined with those of their neighbors in order to effect an economic unit for the more extensive system of farming.⁵

1. Social Science Analyst, Farm Population and Rural Life Branch Agricultural Economics Division, Agricultural Marketing Service, U.S. Department of Agriculture.

2. Robert E. Galloway and Irwin T. Sanders, Rural Families in the Purchase Area of Western Kentucky, Ky. Agr. Exp. Sta. Progress Report, June 1955.

3. The Purchase area (Census Economic Area One) of western Kentucky consists of eight counties (Ballard, Calloway, Carlisle, Fulton, Graves, Hickman, McCracken, and Marshall) lying between the Tennessee and Mississippi Rivers.

4. An explanation of the sampling techniques used in the study is included in Appendix A.

5. John H. Bondurant and Wendell C. Binkley, Land-Tenure Classification and Areas in Kentucky, Ky. Exp. Sta. Bul. 421, January 1942.

During 1939-49, two significant movements occurred in the agriculture of the area: (1) some farmers moved out of agriculture, and (2) those remaining turned to improved farming methods. Among the causes of these changes, were the flooding of the Kentucky Dam reservoir, loss of farm labor to defense industries, nearness to local nonfarm employment, and the influence of the TVA program of improvement of farm practices.⁶ However, in the sections of poorer land, farms were abandoned or converted into part-time or residential farm units. The number of farm operators who supplemented farm income by working off their farms 100 days or more during the year increased from 1,885 in 1939 to 2,993 in 1949, or 58 percent. During that decade farms decreased in number by 1,210, or 7.4 percent; but the average size increased from 83 to 86 acres.

Accelerated change in agriculture started in 1950 with further development of TVA, Kentucky Lake, and industrialization along the Ohio and Tennessee Rivers, in the northern part of the Purchase area. Industries in that section took thousands of acres of farm land out of production and opened up unprecedented nonagricultural employment opportunities.

This study was designed to reveal the extent to which nonfarm industries in the area has drawn upon the local rural labor force. Special interest is manifest in the effect of nonfarm employment of members of farm families on the utilization of its labor force. One purpose of the study was to obtain the answer to several questions relative to employment of the rural family labor force. To what extent are the work patterns of family

6. Percy R. Luney, Changes in the Level of Agricultural Production in Selected Western Kentucky Counties 1939-1949, Ky. Agr. Exp. Sta. Progress Report 11, May 1953.

members affected by the occupation of the head of the family? To what degree are the adult members of farm families fully employed? What are the work patterns of family members at specific chores and household task? Do the work patterns of heads of full-time farmers, part-time farmers, and heads of non-farm families vary significantly? What was the work experience of the heads of rural families during the 20-year period 1933-52? What was the principal occupation of the heads of families in 1952?

Sample Population

The study included 934 members of 189 rural families. Labor force information was obtained from 548 members 14 years of age and older, and data about work patterns from the 828 members 6 years of age and older.

Because of basic differentials in the family work patterns between farm and nonfarm populations, the basic classification of analysis was residence (Appendix B). Size of family, age of family members, and the major activity of each during the year affected family work patterns. An important variable in the analysis of the use of the labor force on family farms was size of the farm operation (production manwork units, Appendix B).

Residence. Families were almost equally divided between farm and nonfarm residents. Farm families accounted for 49 percent of the survey families and nonfarm families the remaining 51 percent. Farm families were further divided into those on full-time and on part-time farms--based on the quantity of farm products sold and of time spent by the operators at off-farm work (Appendix B). Farm families were also almost equally divided between part-time and full-time farm families, 52 part-time and 48 percent full-time.

Size of Family. Five members was the average size of the survey family. The number of family members at home ranged from 3 to 12. The size of family was relatively high because the study included only families with school-age children at home. Although farm families are generally larger than nonfarm families, in this survey there was no significant difference in the size of family between the two groups. In general, rural families in the Purchase area were smaller than rural families in the state as a whole. According to the 1950 Census of Population, the average size of household for both rural farm and nonfarm in the area was 3.5 persons. For the state, rural-farm households averaged 4.1 persons and rural-nonfarm households 3.8 persons.

A greater proportion of farm than nonfarm families had three and four members and seven or more members, but in the case of five and six-member families the reverse was true. (Figure 1).

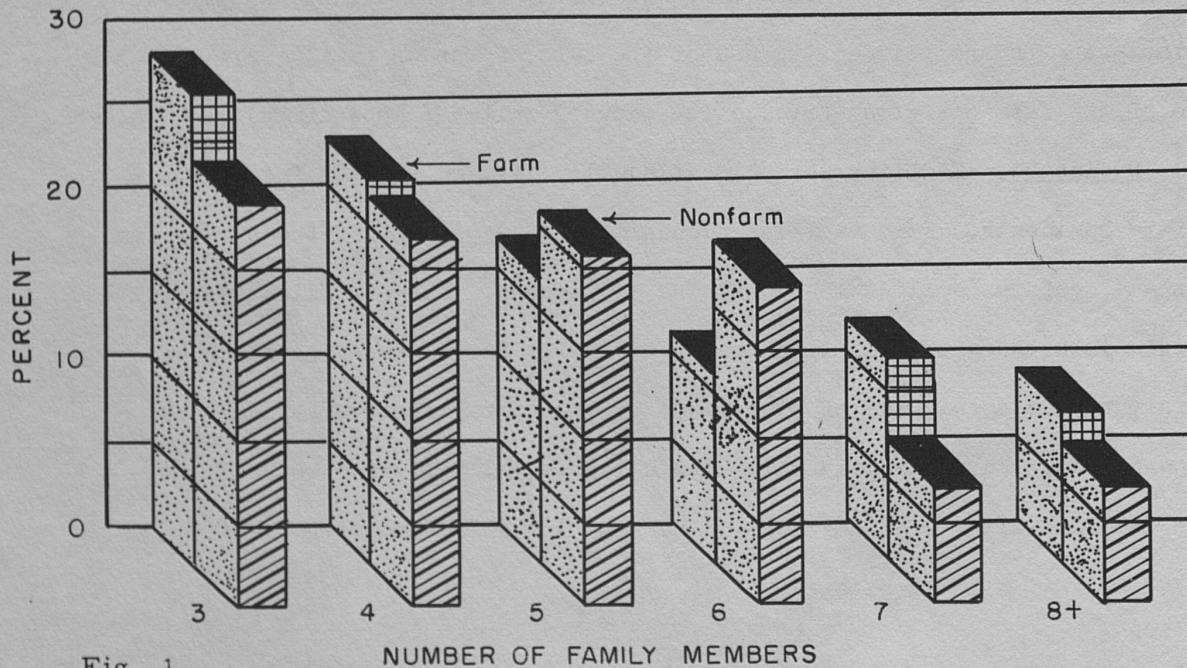


Fig. 1.

Fig. 1. Percentage distribution of families by size and residence.

Age of Family Members. The fact that the families surveyed were those with school-age children would account for the average age of the members of these families being much lower than the state average. The median age of the families in the survey was 17.3 years at the time of the survey; and for the state as a whole it was 24.3 years in 1950. But in the group 14 years of age and older, the difference between average age of the family members surveyed and that in the state was insignificant, 37.1 and 37.3 years, respectively. The median age for heads of families was 42.2 years (Table 1). For other members 14 years of age and

Table 1. Percentage Distribution by Age, by position in Family

Age (Years)	All family members (N-934)	Heads (N-189)	Wives (N-189)	Other members (N-556)
	Percent	Percent	Percent	Percent
All ages	100	100	100	100
Under 6	11	-	-	19
6-9	15	-	-	26
10-13	15	-	-	25
14-17	10	-	-	18
18-19	3	-	-	5
20-24	2	-	2	2
25-34	11	19	33	1/
35-44	17	43	38	-
45-54	11	28	23	1/
55 and over	5	10	4	5
Number of persons 14 and over	548	189	189	170
Median age (Years)	17.3	42.2	39.0	10.9

1/ Less than 1 percent
N = number of cases

older, the median age was 31.7 years. Wives of heads of families were younger, on the average, than their husbands. The median age of wives was 39.0 years. Only 28 percent of the sons and 24 percent of the daughters of these families who were living at home were 14 years of age or older. The median age of both groups was slightly more than 10 years. Other members of the household were parents of the family heads or of their wives. The median age of these persons was 58.1 years.

Major Activity During Year. Relevant to the study is the activity in which each family member 14 years of age and older was engaged during the year ending December 31, 1952. Forty-five percent of the family members 14 years of age and over were in the labor force, during the greater proportion of the year (Table 2). Whereas most all of the

Table 2. Major Activity of Various Family Members 14 Years of Age and Older, During the Year Ending December 31, 1952

Major activity	Total population 14 years of age and over		Heads (N = 189)	Wives (N = 189)	Other members (N = 170)
	Number	Percent	Percent	Percent	Percent
Total	548	100	100	100	100
<u>In labor force</u>	<u>246</u>	<u>45</u>	<u>97</u>	<u>11</u>	<u>24</u>
Agricultural work	66	12	27	-	9
Nonfarm work	180	33	70	11	15
<u>Not in labor force</u>	<u>302</u>	<u>55</u>	<u>3</u>	<u>89</u>	<u>76</u>
Keep house	182	33	-	89	9
Student	90	16	-	-	53
Other (retired- or disabled)	30	6	3	-	14

N = number of cases

family heads were in the labor force, only 11 percent of the wives and 13 percent of the children reported employment as their major activity during the year. Although only slightly more than half of the families were classed as nonfarm, the number of family heads who reported non-agricultural work as their major activity was two and a half times as large as the number who reported agricultural work. It is evident that most of the part-time farmers are engaged primarily in nonfarm work and that they live on farms in the open country. Wives working outside the home reported nonfarm wage work as their primary employment. Other family members in the labor force worked primarily at nonfarm wage work. Of family members not in the labor force, family heads so reported were, either disabled or retired; wives were keeping house; children were in school; and other members were listed as disabled, retired, or keeping house.

In many cases, persons not in the labor force most of the year did some gainful work. Many of these people contributed substantially to labor on farms during periods in which they were free from their major activity. Many school children worked during the summer, and some housewives worked at other than housework a few hours each day.

Family Members Employed Sometime During the Year. Many unemployed persons, or persons not in the labor force for the greater part of the year, did some work. A total of 354, or 65 percent, of persons 14 years of age or older were employed sometime during the year (Table 3).

Table 3. Persons Employed for Various Periods of Time During the Year Ending December 31, 1952, by Residence

Residence	Population 14 years of age and over		Persons working		
			Any days	Less than 150 days	150 days and over
	<u>Number</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
All classes	548	100	65	23	42
Farm	280	100	75	34	41
Part-time	153	100	79	39	40
Full-time	127	100	72	29	43
Nonfarm	268	100	53	10	43

The proportion of family members doing some work was greatest for part-time farm families and smallest for nonfarm families, 79 and 53 percent, respectively. About 72 percent of the members of full-time farm families did some work during the year.

Approximately two-thirds of the employed members of the sample families worked 150 or more days. Members of nonfarm families were more likely to be employed full time than were those of farm families. Eight in 10 of the nonfarm family members who were employed worked 150 or more days, as did about 6 in 10 members of full-time farm families. About half of the employed members of part-time farm families worked as many as 150 days.

FARM FAMILIES AND THE EMPLOYMENT OF THEIR MEMBERS

Farming tends to be more of a family enterprise than most other occupations. Farm children make a substantial contribution to the working force on farms at a younger age than nonfarm children do to the nonfarm working force. Because of the irregularity of the work requirements on the farm during the year, the farm working force may be fully employed at certain seasons and available for additional employment at other times.

FAMILY WORK PATTERNS ON FAMILY FARM

Operating the family farm is usually a family affair.

In two-thirds of the farm families, all able family members worked at some farm operation. The farm family labor force consisted of 211 members or three-fourths of the 280 members 14 years of age and older living on the 92 survey farms. Part-time farm families had the largest proportion of their members working. No difference was found between part-time and full-time farm families in the proportion of members working on family farms.

Working on the Home Farm - Practically all of the heads of farm families worked on the home farm during the year, but only slightly more than half of the other family members 14 years of age and over were so employed (Table 4). Sixty percent of the family heads worked on the

Table 4. Percentage Distribution of Members of Farm Families 14 Years of Age and Over Working on the Home Farm a Specified Number of Days During the Year by Type of Farm

Days worked	Type of farm								
	All mem- bers (N=280) (%)	All farms Heads Others (N=92) (N=188) (%) (%)		All mem- bers (N=153) (%)	Part-time farms Heads Others (N=48) (N=105) (%) (%)		All mem- bers (N=127) (%)	Full-time farms Heads Others (N=44) (N=83) (%) (%)	
	100	100	100	100	100	100	100	100	100
None	33	1	49	33	2	47	33	-	49
1 - 24	14	8	16	18	14	19	9	-	18
25 - 74	12	13	12	14	23	10	9	2	12
75 - 99	6	8	6	10	14	7	2	-	4
100 - 149	6	10	5	9	19	5	3	-	5
150 and over	29	60	12	16	28	12	44	98	12

N = number of cases

home farms 150 days or more during the year, as compared with only 12 percent of other members of the family. Most heads of full-time farm families worked for 150 or more days, but only 1 in 3 of the part-time farm family heads were so employed. A slightly higher proportion of the other family members of full-time than of part-time farm families worked on the home farm, but the same proportion of both groups worked 150 or more days on the home farm during the year.

All farm heads, regardless of type of farm, spend some time at the farm operation. But wives of part-time farm families were more likely to work on the home farm at some farm operation than were wives of other farm families. Thirty-eight percent of the wives of part-time families and 30 percent of the wives of other families did farm work on the home farm. Children of part-time farm families were also more likely to work on the home farm than were those on full-time farms, 63 and 57 percent, respectively.

Daily Chores Around the House. Chores such as care of the yard, feeding chickens, and milking were more of a family operation on part-time farms than on other farms or rural nonfarm places (Table 5).

Table 5. Family Members Doing Specific Chores by Residence

Family member doing chores	All families		Residence		
	Number	Percent	Nonfarm (N = 97) Percent	Part-time farm (N = 48) Percent	Other farm (N = 44) Percent
Total	189	100	100	100	100
Head only	8	4	6	4	2
Wife only	4	2	1	4	2
Children only	3	2	3	-	-
Head and wife	50	27	27	13	41
Head and children	6	3	5	-	2
Wife and children	13	7	8	8	2
All family members	105	55	51	71	50

N = number of cases

Farm wives did chores more frequently than nonfarm wives and part-time farm wives slightly more frequently than those on other farms. Children in part-time farm families were more likely to do chores than those in other families.

Household Tasks. Children helped their mothers with the household tasks in 63 percent of the survey households. Children in nonfarm households were more likely to assist in household tasks than were those in other households (Table 6). Husbands helped their wives with the household tasks in only 3 percent of the families.

Table 6. Family Members Doing Specific Household Tasks by Residence

Family members doing household tasks	Residence				
	All families	Nonfarm (N = 97)		Part-time farm (N = 48)	Other farm (N = 44)
	Number	percent	percent	percent	percent
Total	189	100	100	100	100
Wife only	70	37	34	42	39
Wife and Children	119	63	66	58	61

N = number of cases

Four percent of the husbands in nonfarm families, 6 percent of those in part-time farm families, and none in the other farm families helped their wives with the household tasks.

OFF-FARM WORK

Because of the seasonal nature of much of the farm operation in western Kentucky, 45 percent of the members of farm families 14 years of age and over worked off the family farm for an average of 122 days per year. Almost 9 in 10 heads of farm families worked off the farm,

but only 23 percent of other family members were so employed (Table 7). By definition, part-time farm family heads were more likely to work off the farm than were heads of full-time farm families, 96 and 79 percent, respectively. Part-time farm family heads worked off the farm relatively full time. They averaged 225 days work off the farm during the year. Heads of full-time farm families of course, worked off the farm for shorter periods; only 35 days during the year. All heads of farm families who worked off the farm averaged 143 days at this type of work during the year. Not only did a higher proportion of the other family members of part-

Table 7. Percentage Distribution of Members of Farm Families 14 years of Age and Over of the Home Farm Specified Numbers of Days During the Year by Type of Farm

Days worked	All mem- bers (N=280)	All farms Heads Others (N=92) (N=188)		All mem- bers (N=153)	Part-time farms Heads Others (N=48) (N=105)		All mem- bers (N=127)	Full-time farms Heads Others (N=44) (N=83)	
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	100	100	100	100	100	100	100	100	100
No. days	55	12	77	52	4	73	60	21	81
1 - 24	9	13	7	6	6	6	13	21	10
25 - 74	12	23	6	5	-	7	20	47	5
75 - 99	3	5	2	1	-	2	5	11	1
100 - 149	3	3	3	5	6	5	-	-	1
150 and over	18	44	5	31	84	7	2	-	2

N = number of cases

time farm families work off the farm, but they also worked for longer periods than did those in full-time farm families. Other members of part-time farm

families worked off the farm 101 days during the year, those of full-time families 68 days.

Wives who worked off the farm were more likely to be employed for longer periods than were children and others who lived with the family. Wives who worked off the farm were also more likely than other members to be working at nonfarm work.

Work off the home farm by members of farm families consisted of work on other farms for wages, exchange work on other farms, and work in nonagricultural industries.

Work on Farms Other than Home Farm - Most of the work done by family members, on farms other than the home farm was exchange work on neighbors' farms. Heads of families did more than 85 percent of all such exchange work. Almost 40 percent of the heads of farm families did some exchange work during the year, as did 11 percent of the other members. The median number of days worked on other farms for exchange by the heads of farm families was 16 and for other family members the median was 9 days. Heads of full-time farm families were more than twice as likely to do exchange farm work than those in part-time farm families (Table 8). Other members of part-time farm families, however, were just as likely to do exchange work on other farms. Heads of full-time farm families. Thirty percent of the former, as compared with only 4 percent of the latter, worked as many as 20 days at exchange work. There was no significant difference in the time other members of the two groups of farm families spent at exchange work on other farms.

but only 23 percent of other family members were so employed (Table 7). By definition, part-time farm family heads were more likely to work off the farm than were heads of full-time farm families, 96 and 79 percent, respectively. Part-time farm family heads worked off the farm relatively full time. They averaged 225 days work off the farm during the year. Heads of full-time farm families of course, worked off the farm for shorter periods; only 35 days during the year. All heads of farm families who worked off the farm averaged 143 days at this type of work during the year. Not only did a higher proportion of the other family members of part-

Table 7. Percentage Distribution of Members of Farm Families 14 years of Age and Over of the Home Farm Specified Numbers of Days During the Year by Type of Farm

Days worked	All farms			All mem- bers (N=153)	Part-time farms		All mem- bers (N=127)	Full-time farms	
	mem- bers (N=280)	Heads (N=92)	Others (N=188)		Heads (N=48)	Others (N=105)		Heads (N=44)	Others (N=83)
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
	100	100	100	100	100	100	100	100	100
No. days	55	12	77	52	4	73	60	21	81
1 - 24	9	13	7	6	6	6	13	21	10
25 - 74	12	23	6	5	-	7	20	47	5
75 - 99	3	5	2	1	-	2	5	11	1
100 - 149	3	3	3	5	6	5	-	-	1
150 and over	18	44	5	31	84	7	2	-	2

N = number of cases

time farm families work off the farm, but they also worked for longer periods than did those in full-time farm families. Other members of part-time farm

families worked off the farm 101 days during the year, those of full-time families 68 days.

Wives who worked off the farm were more likely to be employed for longer periods than were children and others who lived with the family. Wives who worked off the farm were also more likely than other members to be working at nonfarm work.

Work off the home farm by members of farm families consisted of work on other farms for wages, exchange work on other farms, and work in nonagricultural industries.

Work on Farms Other than Home Farm - Most of the work done by family members, on farms other than the home farm was exchange work on neighbors' farms. Heads of families did more than 85 percent of all such exchange work. Almost 40 percent of the heads of farm families did some exchange work during the year, as did 11 percent of the other members. The median number of days worked on other farms for exchange by the heads of farm families was 16 and for other family members the median was 9 days. Heads of full-time farm families were more than twice as likely to do exchange farm work than those in part-time farm families (Table 8). Other members of part-time farm families, however, were just as likely to do exchange work on other farms. Heads of full-time farm families. Thirty percent of the former, as compared with only 4 percent of the latter, worked as many as 20 days at exchange work. There was no significant difference in the time other members of the two groups of farm families spent at exchange work on other farms.

Table 8. Percentage Distribution of Members of Farm Families 14 Years of Age and Over Working on Other Than Home Farm at Exchange Work During the Year by Type of Farm

Days Worked	Type of farm					
	All Farms		Part-time farms		Full-time farms	
	Heads (N=92)	Others (N=188)	Heads (N=48)	Others (N=105)	Heads (N=44)	Others (N=83)
	Percent	Percent	Percent	Percent	Percent	Percent
	100	100	100	100	100	100
No. days	61	89	77	89	43	89
1 - 4	4	2	7	3	2	1
5 - 9	8	4	4	3	11	5
10 - 14	7	1	6	1	7	1
15 - 19	4	1	2	1	7	1
20 and over	16	3	4	3	30	3

N = number of cases

Only 20 of the 280 family members 14 years of age and older worked on other farms for wages in 1952. Members of full-time farm families worked about twice as many days on an average for wages on other farms as did members of part-time farm families, 100 and 49 days, respectively.

Work at Nonagricultural Employment. Most of the off-farm work done by members of farm families was nonagricultural. More than 90 percent of all off-farm work was of a nonfarm nature. Almost two-thirds of the family heads on farms were employed at non-agricultural work sometime during the year (Table 9). All but two heads of the 48 part-time farm families, and 3 in 10 heads of the full-time farm families, worked in nonagricultural industries

Table 9. Percentage Distribution of Members of Farm Families 14 Years of Age and Over at Nonfarm Work a Specified Number of Days During the Year by Type of Farm

Days worked	Type of farm					
	All farms		Part-time farms		Full-time farms	
	Heads (N=92)	Others (N= 188)	Heads (N=48)	Others (N=105)	Heads (N=44)	Others (N=83)
	Percent	Percent	Percent	Percent	Percent	Percent
	100	100	100	100	100	100
No. days	37	87	4	84	73	93
1 - 24	2	1	-	1	5	1
25 - 74	12	2	8	1	16	2
75 - 99	3	2	-	2	6	1
100 - 149	3	3	6	5	-	1
150 and over	43	5	82	7	0	2

N = number of cases

during the year. Members of farm families who worked at nonagricultural jobs averaged 223 days of such work during the year. Members of part-time farm families averaged 280 days, and those in full-time farm families doing nonagricultural work averaged only 65 days during the year. More than 8 in 10 heads of part-time farm families worked 150 or more days during the year.

Not only were other members of full-time farm families less likely to work at nonagricultural employment than those in part-time farm families, but the former worked fewer days at such work than did the latter.

Slightly more members of farm families working at non-agricultural work were employed as skilled or semi-skilled workers than were employed as unskilled laborers, 53 and 47 percent, respectively. About the same proportion of the members of part-time and full-time farm families worked as skilled and semi-skilled and as unskilled laborers.

Use of the Farm Labor Force by Size of the Farm Operation

Generally, it was found that the larger the farm operation the greater was the proportion of farm family members, 14 years of age and older, working on the home farm, and the smaller the proportion of members working elsewhere. Conversely, the smaller the farm operation the smaller the proportion of farm family members working on the home farm, and the greater the proportion of members working elsewhere.

Days Worked by Members of Farm Families - Members of farm families with productive man-work units⁷ for crop and livestock on the home farm of under 75 and those 300 or more PMWU's were most likely to be fully employed (Table 10). Members of farm families with labor requirements between the two extremes were not so likely to be fully employed as the others.

7. Productive man-work units is the equivalent of the labor input of an adult male in a 10-hour day at farm work.

Table 10. Farm Family Members Working on Home Farm and Elsewhere and the Average Days Worked During the Year by Production Man-work Units Required for Crop and Livestock Production.

Productive man-work units	Members 14 years of age and over	Location of work					
		All work		On home farm		Elsewhere	
		Percent working	Average days	Percent working	Average days	Percent working	Average days
All farms	280	75	177	82	125	45	122
Under 75	35	71	217	51	46	63	209
75 - 149	68	76	158	59	74	62	166
150 - 299	74	78	165	88	121	50	116
300 and over	103	74	186	62	179	45	57

Also the former were employed in larger proportions than the latter. The greater the productive man-work unit requirements on a farm the greater the average number of days family members worked on the home farm and the smaller the number of days they worked off the farm.

Days Worked Per Farm Family. The average number of days worked on farms by farm family members increased as productive man-work unit requirements increased (Table 11), but the reverse was true for work done off the home farm. Members worked more days off the farm on the average when unit requirements for the farm operation were less. But, when the average days of both types of work were combined, average days worked per family did not vary progressively according to the labor requirements on the farms. Farms with the smallest and those with the largest productive man-work unit requirements had the highest average days worked per family

Table 10. Farm Family Members Working on Home Farm and Elsewhere and the Average Days Worked During the Year by Production Man-work Units Required for Crop and Livestock Production.

Productive man-work units	Members 14 years of age and over	Location of work					
		All work		On home farm		Elsewhere	
		Percent working	Average days	Percent working	Average days	Percent working	Average days
All farms	280	75	177	82	125	45	122
Under 75	35	71	217	51	46	63	209
75 - 149	68	76	158	59	74	62	166
150 - 299	74	78	165	88	121	50	116
300 and over	103	74	186	62	179	45	57

Also the former were employed in larger proportions than the latter. The greater the productive man-work unit requirements on a farm the greater the average number of days family members worked on the home farm and the smaller the number of days they worked off the farm.

Days Worked Per Farm Family. The average number of days worked on farms by farm family members increased as productive man-work unit requirements increased (Table 11), but the reverse was true for work done off the home farm. Members worked more days off the farm on the average when unit requirements for the farm operation were less. But, when the average days of both types of work were combined, average days worked per family did not vary progressively according to the labor requirements on the farms. Farms with the smallest and those with the largest productive man-work unit requirements had the highest average days worked per family

Table 11. Farm Families with One or More Members Working on the Home Farm and Elsewhere and Average Days Worked Per Farm Family During the Year by Productive Man-work Units Required for Crop and Livestock Production

Productive man-work units	Number of farms	Location of work					
		All work		on home farm		Elsewhere	
		Total days	Average days	Total days	Average days	Total days	Average days
All farms	92	37,350	406	21,660	235	15,690	171
Under 75	13	5,430	418	830	64	4,600	354
75 - 149	20	8,260	413	2,960	148	5,300	265
150 - 299	26	9,550	367	6,190	238	3,360	168 ^{1/}
300 and over	33	14,110	427	11,480	348	2,630	91 ^{2/}

^{1/} Only 20 farm families had one or more members working elsewhere.

^{2/} Only 29 farm families had one or more members working elsewhere.

at all work, 418 and 427 days, respectively. These differences cannot be attributed to average size of family (member 14 years of age and over) because differences in the average size of family by size of farm operation were not appreciable.

Exchange Work Per Farm Family. As productive man-work unit requirements for crop and livestock production on the farm increased, the proportion of families with one or more members doing exchange work on neighboring farms increased (Table 12). The same was true for the average days worked per family at exchange work. The proportion of farm families that had the highest farm labor requirements was almost five times that of those that had the lowest labor requirements when one or more members were engaged in exchange work on other farms.

Table 12. Farm Families with One or More Members Employed at Exchange Work on Other Than Home Farm During the Year by Productive Man-work Units Required for Crop and Livestock Production

Productive man-work units	Number of farms	Families with one or more members doing exchange farm work		Average days of exchange work per family
		Number	Percent	
All farms	92	41	45	18
Under 75	13	2	15	11
75 - 149	20	6	30	13
150 - 299	26	11	42	14
300 and over	33	22	67	22

But some members of the first group were engaged in exchange work only twice as many days on an average as members of the second group.

NONFARM FAMILIES AND THE EMPLOYMENT OF THEIR MEMBERS

Nonfarm Labor Force

The nonfarm family labor force consists of 143 persons or 53 percent of the 268 members 14 years of age and over, living in the 97 nonfarm households in the survey. During the year 142 of these were employed at nonfarm work and 19 at farm wage work. Two-thirds of the employed members of nonfarm families were heads who worked more than 70 percent of the total days all family members worked at nonfarm employment.

Employment of Nonfarm Family Member. Members of nonfarm families were employed about a fifth more days per worker on the average than were members of farm families, 217 and 177 days, respectively. Of nonfarm family members employed during the year, 8 in 10 worked 150 or more days (Table 13). Ninety-seven percent of the heads were employed

Table 13. Percentage Distribution of Members of Nonfarm Families 14 Years of Age and Over, Employed at Nonfarm Work for Specified Periods During the Year

Days worked	All Members (N = 268)	Heads (N = 97)	Other members (N = 171)
	Percent	Percent	Percent
No days	100 47	100 3	100 72
1 - 24	1	1	1
25 - 74	3	-	5
75 - 149	5	5	5
150 and over	44	91	17

N = number of cases

at nonfarm work, compared with 28 percent of other family members. Most heads employed at nonfarm work worked 150 or more days during the year. The mean number of days worked by the heads was 246, by other family members 161.

Approximately two-thirds of the nonfarm families had only one member employed during the year; however, the average number of members employed per family was 1.5. The average number of days worked per family was 316 compared with 406 for farm families.

Nonfarm Family Income - The median income for the nonfarm families in the survey in 1952 was \$3,614. This compared with a median income of \$1,848 for all families in the area in 1949.⁸ The range of incomes and the

⁸ 1950 Census of Population, Kentucky, General Characteristics, P-B17, Bureau of the Census, Washington, D. C.

proportion on nonfarm families in each income group are shown in Figure 2. Forty-two percent of the families had incomes of \$4,000

Percent

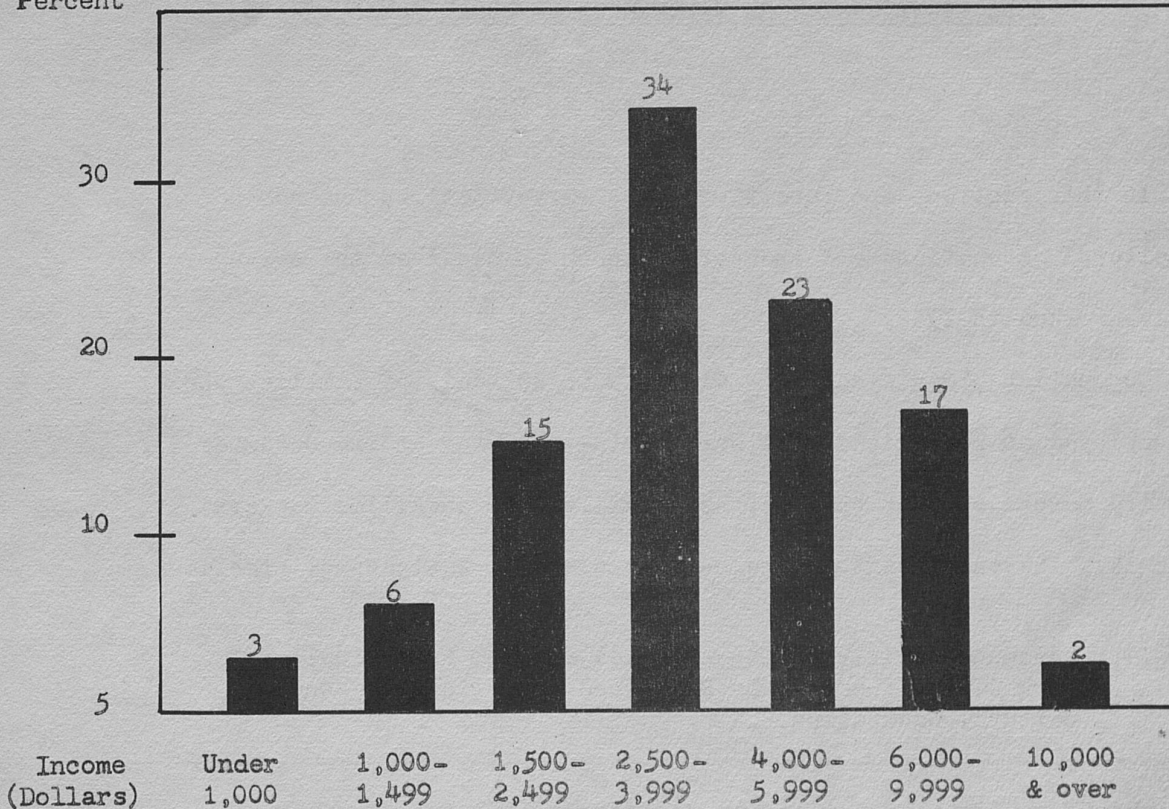


Fig. 2

Fig. 2. Nonfarm Family Income for the Year Ending December 31, 1952.

or more and only 9 percent had incomes less than \$1,500. Among all families in the area in 1949, only 13 percent had incomes of \$4,000 or more, and 42 percent had incomes under \$1,500.

In more than two-thirds of the nonfarm families, the head was the only member contributing to the family income. In an additional 20 percent of the families, wives made some contribution; in the remaining 14 percent children at home, or other family members, made some contribution.

NONAGRICULTURAL WORK EXPERIENCE OF RURAL FAMILY HEADS

Work Experience in 1952

In this section, the report presents survey data on the non-agricultural occupations and industries in which heads of the survey families worked in 1952.

Occupation Classification - Almost 9 in 10 heads of families who were employed at nonagricultural work during the year ending December 31, 1952, did manual work as skilled, semi-skilled, or unskilled workers (Table 14). Seven percent of the heads operated a business or practiced

Table 14. Percentage Distribution of Heads Who Did Nonagricultural Work During the Year by Residence and Principal Nonagricultural Occupation.

Principal nonagricultural occupation	Residence of head				
	All	Nonfarm (N = 97)		Part-time (N = 48)	Full-time (N = 13)
	Number (%)	(%)	(%)	(%)	(%)
Total	158	100	100	100	100
Operate a business or profession	11	7	10	2	-
Manual workers	138	87	85	87	100
Skilled or semi-skilled	81	51	54	43	54
Unskilled	57	36	31	44	46
Clerical, sales and kindred workers	6	4	3	9	-
Service Workers	3	2	2	2	-

N = number of cases

a business or practiced a profession, 4 percent were clerical or sales workers, and 2 percent were service workers (Appendix B). Heads of non-farm families were more likely than heads of other families to be business or professional men, and less likely to be unskilled laborers. A slightly higher proportion of heads of part-time farm families than of nonfarm families were manual workers. The former were also more likely than the latter to be unskilled laborers, and less likely to be skilled or semi-skilled workers. Full-time farmers who worked at nonagricultural jobs were manual workers, a high proportion being employed as skilled or semi-skilled workers. The majority of the heads of full-time farm families working at nonagricultural employment as skilled workers were carpenters. Relatively few heads of rural families were employed in 1952 as clerks, sales workers, or service workers.

Industry Classification - The construction industry, especially the companies building the Atomic Energy and TVA Shawnee Steam Plants, were the chief employer of heads of the survey families who worked at nonagricultural work in 1952 (Table 15). Three-fourths of the heads who were employed in the construction industry worked on the two projects. Part-time farm family heads were most likely to be working in the construction industry and on the two projects, full-time farm family heads least likely. Two-thirds of the part-time farm family heads worked in the construction industry, and more than 80 percent of these gave up full-time farming operations to take jobs in defense industries near Paducah. Manufacturing employed 31 percent of the heads of full-time farm families who were employed in 1952, compared with only 13 percent of

Table 15. Percentage Distribution of Heads Who Did Nonagricultural Work During the Year by Residence and Principal Industry in Which They were Employed

Principal nonagricultural industry	Residence of head				
	Number	All	Nonfarm (N = 97)	Part-time farm (N = 48)	Full-time farm (N = 13)
		Percent	Percent	Percent	Percent
Total	158	100	100	100	100
Construction	87	55	52	66	39
Manufacturing	28	18	19	13	31
Transportation	6	4	3	7	-
Wholesale and re- tail trade	16	10	11	4	15
Service	10	6	7	6	-
Government	11	7	8	4	15

N = number of cases

the part-time farm family heads. Wholesale and retail trade and county, state, and federal government were important employers of heads of full-time farm families and service industry was an important employer of heads of non-farm families. Most family heads employed in transportation worked in the railroad shops in Paducah. More than two-thirds of these workers were also part-time farmers.

Work Experience Between 1933 and 1952

A slightly higher proportion of heads of survey families reported nonfarm work than farming as their principal source of employment between 1933 and 1952, 53 and 47 percent, respectively. Two-thirds of the part-time farmers and 18 percent of the nonfarm heads reported "full-time farm operator"

as their principal occupation the last 20 years. At the same time only 19 percent of the full-time farmers reported a nonfarm occupation as their principal occupation during any of this period.

Number of Occupations Followed - Most of the heads of the families had changed occupations during the 20 years between 1933 and 1952. Only 17 percent had followed the same occupation since 1933 (Table 16).

Table 16. Percentage Distribution of Heads of Families by Number of Different Occupations^{1/} Followed the Past 20 Years and Residence in May 1953

Number of different occupations	Residence of head			
	All classes	Nonfarm	Part-time farm	Full-time farm
	(N = 189) Percent	(N = 97) Percent	(N = 48) Percent	(N = 44) Percent
Total	100	100	100	100
Same occupation	25	17	4	64
2	32	32	42	23
3	22	21	33	11
4	9	10	15	-
5 or more	12	20	6	2
Mean number	2.6	3.0	2.8	1.6

^{1/} Time in armed services was not counted as an occupation.
N = number of cases

Almost two-thirds of the heads of full-time farm families had followed the same occupation during this period, as compared with only 4 percent of the heads of part-time farm families. During the 20 years, nonfarm heads had

almost twice as many occupations on the average as heads of full-time farm families, 3.0 and 1.6 respectively. Twenty percent of the former had 5 or more different occupations the last 20 years, and only 2 percent of the latter had as many occupations during the same period. Heads of part-time farm families were least likely to have followed the same occupation, although they did not have so many different occupations on an average as heads of nonfarm families.

Years Followed a Single Occupation - A close relationship exists between the number of different occupations followed by the heads during the 20 years and the number of years they followed a single occupation. Heads of full-time farm families were most likely among heads to follow one occupation through the years: 61 percent of the full-time farm heads, compared with only 10 percent of other heads, had followed one occupation (Table 17). About 1 in 4 heads had followed a single occupation less than 5 years, and the same proportion had followed one occupation for 20 years or longer. The average number of years heads followed one occupation was 14.8. Heads of full-time farm families stayed at one job the longest period of time and those in nonfarm families followed a single occupation for the shortest time - an average of 19.1 and 13.1 years, respectively. Heads of part-time farm families worked at the same occupation for an average of 13.8 years.

Table 17. Percentage Distribution of Heads of Families by Greatest Number of Years One Occupation Followed the Past 20 Years and Residence May 1953

Number of years	Residence of head			
	All classes (N=189*)	Nonfarm (N=97)	Part-time farm (N=48)	Full-time farm (N=44)
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Total	100	100	100	100
Less than 5	2	3	2	-
5 - 9	22	32	17	5
10 - 14	30	28	40	23
15 - 19	22	20	37	11
20 or more	24	17	4	61

* N = number of cases

SUMMARY

During the last decade, work patterns of rural family members living in the Purchase Area of western Kentucky have been changing. Many of the changes resulted from the movement of families out of full-time farming, the increase in part-time farming, the increase in the availability of nonfarm jobs locally, the change from row-crop to grassland farming, and the marked increase in farm mechanization.

A relatively large proportion of persons in the sample, 14 years of age and older, were in the labor force sometime during the year. Sixty-five percent of these persons were in the labor force, however, less than two-thirds of those employed worked full-time. More than 80 percent of the nonfarm family workers and 55 percent of the farm family workers were employed 150 days or more during the year.

Because farming tends to be more of a family enterprise than other occupations, farm children made a substantial contribution to the working force on farms at a much younger age than non-farm children make to the nonfarm working force. Two-thirds of the farm families had one or more children working at some farming operation. Wives also participated in farm work on a third of the family farms.

Part-time farming is a means of increasing the use of the family labor supply. Part-time farm families had a greater proportion of their adult members in the labor force than did full-time farm families. A larger proportion of members of part-time farm families than of members of full-time farm families not only worked off the farm; they also worked off the farm for longer periods.

Most of the farm labor other than that furnished by farm family members on the home farm was exchange farm work by neighbors. Most of the exchange work was done by heads of full-time farm families. Part-time farm family heads evidently did not have time available for exchange work with their neighbors.

More than 90 percent of all off-farm work done by farm family members was nonagriculture. Members of farm families working at nonagricultural work averaged 223 days a year at this work. Part-time farm family members averaged 280 days a year at nonagricultural work; members of full-time farm families averaged only 65 days.

Generally, the larger the farm operation the greater the proportion of family members in the farm labor force and the smaller the proportion working off the farm. As the size of farm operation increased, the proportion of members of farm families working on other farms at exchange work as well as the number of days worked increased. There was also a relationship between the size of farm operation and the amount of hired labor employed during the year. As the size increased, so did the number of days hired laborers worked on the farm. Farms hiring farm labor utilized an average of 42 days of such labor a year. Seventy percent of the full-time farms hired farm labor for an average of 62 days a year, and although 58 percent of the part-time farms hired labor, only half of these used as much as 10 days of hired labor during the year.

Fifty-three percent of the members of nonfarm families 14 years years of age and over, were in the labor force sometime during the year. Of the 268 members of nonfarm families in the above age group, 142 worked at nonagricultural work and 19 worked at farm wage work. Heads of nonfarm families worked 70 percent of all days worked by members of the families. Nonfarm family members were employed about a fifth more days on an average than members of farm families---217 and 17 days, respectively. Employed heads of nonfarm families worked an average of 246 days a year and other members an average of 161 days.

Eighty-seven percent of the heads of survey families employed at nonagricultural work during the year did manual work as skilled, semi-skilled, or unskilled workers. Heads of both nonfarm and full-time farm families were

more likely to be skilled or semi-skilled workers than unskilled laborers. In the case of heads of part-time farm families the reverse was true. In non-manual occupations, nonfarm family heads were most likely to be business or professional men and part-time farm family heads most likely to be clerical, sales, and kindred workers. There were relatively few service workers among the heads of the survey families.

APPENDIX A.

Method of Study

This study included farm and nonfarm families in the open-country territory in Economic Area 1, which consists of eight counties in western Kentucky. "Open country" refers to all territory in these counties exclusive of all incorporated places having a population of about 100 inhabitants or more. From the open-country territory in Economic Area 1, a single-stage, geographically stratified random sample of 79 area segments was selected which varied in size from about 3 to 10 dwellings. Located in the area segments were 647 households from which basic information was obtained regarding household composition, occupation of head, years lived in the community last previous residence, and sex and age of household members. Screening out all households by those with head and wife living at home with school age children (6 - 18 years of age) left 196 households from which schedules were to be taken. Completed schedules were obtained in 189 survey families. The housewife, and when available, the husband were interviewed. Enumerators were unable to get completed schedules in 7 of the families in the sample.

The field work was done during May and June 1952. All interviewing was done by two graduate students in the Department of Rural Sociology, University of Kentucky.

APPENDIX B.

Explanations of Specified Terms Used in Report

Family and Household. The terms are used interchangeably and include everyone living in the residences from which persons were interviewed.

Farm. The definition of a farm used in this study is similar to that utilized by the 1950 Census of Agriculture. Places of 3 or more acres were classified as farms if the value of agricultural production sold or used at home, exclusive of home gardens, amounted to \$150 or more during the year preceding the survey (1951). Places of less than 3 acres were classed as farms only if the value of agricultural products sold in 1951 totaled \$150 or more.

Nonfarm. If there was no farm operator in the household but the head was engaged in nonfarm work, the residence was classified as rural nonfarm.

Open-country rural territory. Farm areas and population centers of less than 100 persons.

Nonagricultural Occupation. The classification in this report is the same as that used by the U. S. Bureau of the Census. 9

9. See Occupations Included in Each Occupation Group page 8, Second Series, U. S. Census of Population, 16th Census of the United States 1940.

Specific occupations of persons included in this study follow:

Operate Business or Profession Clerical, Sales and Kindred Workers

Businesses

General store
Saw Mill
Trucking
Restaurant

Store Clerk
Post Office Clerk
Salesman
Bookkeeper
Typist

Professions

Minister
Teacher
P M A Committeemen

Service Workers

Waitress
Janitor
Jailer
Cook

Skilled or Semi-skilled ¹⁰

Carpenter	Plumber
Sawer	Driller
Miner	Paper Hanger
Carpenter helper	Foreman
Boiler Maker	Machinest
Loader	Blacksmith
Painter	Riveter
Steel Mill Worker	Pipe Fitter
Truck driver	Steam Fitter
School bus driver	
Road grader operator	
Blast furnace operator	
Tractor Driver	

Major Activity. The activity at which an individual spent the greatest proportion of his time during the 12 months preceding the date of the survey.

Work activities: Operation of a farm, farm wage work, nonfarm wage work, operation of a nonfarm business or profession and unpaid work on a family farm or in a family business.

10. Includes craftsmen, foremen, and kindred workers.

Nonwork activities: Persons who were not engaged in work activities were classified according to their retirement or disability status.