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Differential Mobility Within the Rural Population in 18 Iowa Townships, 1928 to 1935

BY RAY. E. WAKELEY

AGRICULTURAL EXPERIMENT STATION
IOWA STATE COLLEGE OF AGRICULTURE
AND MECHANIC ARTS

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Differential Mobility Within the Rural Population in 18 Iowa Townships, 1928-35¹

BY RAY E. WAKELEY

Changes and characteristics of the population of Iowa have been described in some detail by the analysis of census data (3, 19, 6, 4). Neither the census nor these special studies, however, give information concerning many differential factors that operate in different ways as important parts of the total migration picture.²

The present investigation was undertaken to obtain more specific information concerning the extent of selected mobility factors, their operation during the depression, their effect on population movements and their relation to certain rural problems, including problems of education, organization, tenancy and relief.

SCOPE AND METHOD

Numerous aspects of the movements of rural people were included in the search for more specific answers to questions such as the following:

1. What was the total amount of migration of these farm and village families during the 7-year period?
2. What proportion of the families moved a specified number of times?
3. What was the range or radial distance covered by the families in the various moves?
4. How many children had left home, at what age did they leave, and how many moved out of the state?
5. Did a higher proportion of the better educated children leave home?
6. What was the relationship between migration and farm ownership, tenancy and farm labor?
7. What proportion of the young people returned to their parental homes during the depression?
8. Did families on relief move more often than other families during the 7-year period?

¹ Project 383 of the Iowa Agricultural Experiment Station.

This study was originated by C. E. Lively, professor of rural sociology at Ohio State University, and Conrad Taeuber, senior agricultural economist for the Division of Farm Population and Rural Life, Bureau of Agricultural Economics, United States Department of Agriculture, while they were employed as members of the rural research staff of the Federal Emergency Relief Administration in 1934. The project was instituted in Iowa as a part of the FERA program of cooperative rural research.

² On this point Lively (10) says: "Field studies of mobility are of particular value in establishing differentials with respect to the mobility of families and individuals. The spatial and occupational origins of the population of an area, the destination of those who migrate from an area and the steps in arriving there, the frequency of change of domicile, the direction of such movement and the radial distance of circulation, as well as the accompanying occupational shifts, may be obtained only by means of field investigation."

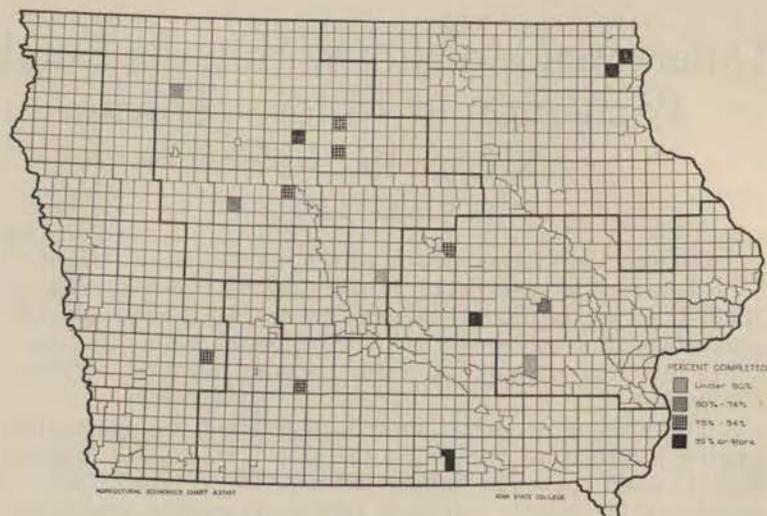


Fig. 1. Townships included in the survey.

Data are presented for 18 rural townships in Iowa for the years 1928-35 (fig. 1). These townships are widely scattered over the state but are too few in number to constitute an adequate state sample. Briefly summarizing, it appears that the farm results are representative for the state, and village results, though meager in extent, are approximately correct for the rural villages. Farm and village results combined are not representative for the rural population of the state, because too few villages were included in this survey. For this reason farm and village results are not combined in this study.³

Broadly speaking, the information obtained may be included in three general but related categories—the present household, the children who had left home, and the former owners and operators of the farms.⁴

Information obtained from the head of each household included the family roster and the amount of schooling obtained by each member. The changes in domicile and occupation were obtained also for the 7-year period, 1928-35.⁵ Changes in domicile were included only when the change involved crossing a civil boundary such as the boundary of a township or an incorporated village. Changes of domicile within the township or incorporated limit are not defined as a move and so are not recorded.

³ For more detailed analysis on this point, see Appendix.

⁴ Data on the succession of owners and operators on these farms will be presented in another publication.

⁵ This period, beginning Jan. 1, 1928, and ending Jan. 1, 1935, was short enough to encourage accuracy and long enough to indicate changes made during the depression.

Children away from home included only the children of the head of the household who were 16 years of age or older and not living at home. For these the information obtained included the year each left home, the amount of schooling attained, the age at time of leaving home, their destination and whether any of them had returned home and were living with their parents on Jan. 1, 1935.

This information was obtained in each township by a trained enumerator on the Iowa Emergency Relief Administration work program. In so far as possible, every home was visited. The survey was not completed in some townships, however, because of the termination of the work program in June, 1935. The relief data were obtained from the office of the county director of relief.

While the data stress the migration of the heads of families, some indication of vertical mobility may be obtained from the changes in occupation and relief history. Since the survey of the farming population included only those on farms Jan. 1, 1935, little could be inferred concerning those families that had left the farm previous to that time. Certain implications of this limitation will be indicated in the section on tenure status and family migration.

POPULATION STRUCTURE AND MIGRATION

The population surveyed included 11,043 persons, five-sixths of whom were living in the households surveyed. The other sixth were children who had left home. Children of the

TABLE 1. TOTAL POPULATION OF HOUSEHOLDS SURVEYED, AND ALL LIVING CHILDREN OF HEADS OF HOUSEHOLDS NOT AT HOME JAN. 1, 1935, BY AGE AND RESIDENCE.

Age	Total population	Open country			Village		
		Total	At home	Away from home	Total	At home	Away from home
0 - 4	703	582	582	—	121	121	—
5 - 9	912	780	780	—	132	132	—
10-14	1,004	846	846	—	158	158	—
15-19	992	844	815	29*	148	133	15*
20-24	981	816	555	261	165	113	52
25-34	2,036	1,647	1,008	639	389	214	175
35-44	1,814	1,426	1,087	339	388	219	169
45-54	1,237	966	903	63	271	200	71
55-64	742	583	581	2	159	146	13
65+	620	431	431	0	189	187	2
Under 16	2,826	2,384	2,384	—	442	442	—
16 and over	8,215	6,537	5,204	1,333	1,678	1,181	497
Unknown	2	—	—	—	2	2	—
All ages	11,043	8,921	7,588	1,333	2,122	1,625	497

*Includes only those 16 - 19 years of age.

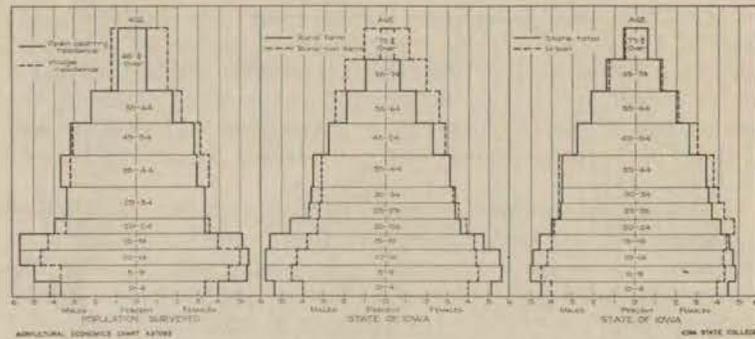


Fig. 2. Persons living in households surveyed, compared with the state by age, sex and residence.

head of the household, 16 or more years of age and not living at home, were the only persons included in the survey who were not living in the households surveyed (table 1).

A story of population movements may be inferred from the age and sex structure of the populations shown in fig. 2, in which the population surveyed is compared with the population of the state in 1930. Inspection of the population surveyed indicates two important differences and one important similarity between the open-country and the village population. The first difference is the larger proportion of children in the open-country due to the higher birth rate there and to the retirement of older persons to town. The second difference is the larger proportion of the village population more than 65 years of age, which results principally from the retirement of elderly persons from farms (tables 2 and 3). The similarity is in the proportion between 20 and 44 years of age. It should be noted that the relatively few persons between 20 and 34 years of age results from the migration of young people from rural to urban areas. This also is indicated by the high proportion of persons between 20 and 44 years of age in the urban population of the state (fig. 2).

The open-country (includes all people living outside centers of 50 or more population) and village populations surveyed have general characteristics rather similar to those of the rural-farm (term used by the federal census) and the rural non-farm populations of the state, respectively (fig. 2). The greater proportion of aged persons in the village in 1930, coupled with the low proportion of aged in the farm population, is a result of the movement of elderly farm people to town when they retire from farming. The smaller differences between the proportion of the aged in the open-country and village portions of the population surveyed may result in part from vagaries of sampling and from the inclusion of a few non-farm families in the open-country.

TABLE 2. PERSONS LIVING IN OPEN-COUNTRY HOUSEHOLDS SURVEYED, BY AGE AND SEX.

Age in years	Total	Males		Females	
		Number	Percent of total population	Number	Percent of total population
0-4	582	283	3.7	299	3.9
5-9	780	378	5.0	402	5.3
10-14	846	433	5.7	413	5.4
15-19	815	429	5.7	386	5.2
20-24	555	302	4.0	253	3.3
25-34	1,008	498	6.6	510	6.7
35-44	1,087	571	7.5	516	5.8
45-54	903	483	6.3	420	5.6
55-64	581	324	4.3	257	3.4
65 and over	431	272	3.6	159	2.1
Under 16	2,384	1,181	15.6	1,203	15.8
16 and over	5,204	2,792	36.8	2,412	31.8
All ages	7,588	3,973	52.4	3,615	47.6

Most of the difference appears to result from the interruption of the voluntary retirement of aged persons in either the open country or the village population; it would also be affected by the number of elderly retired farm owners who were forced to return to active operation of the farm because of the depletion of their savings.

That males and females do not migrate in equal proportions is indicated by differences in sex ratio in the total population surveyed, the ratio being 110 males per 100 females for the open country and 97.7 for the village. The sex ratios are 117 and 97, respectively, for males and females between the ages 16 to 24 years during which period most migration of individuals takes place. These ratios indicate that females predominate in the movement of young people from the open-country to both

TABLE 3. PERSONS LIVING IN VILLAGE HOUSEHOLDS SURVEYED, BY AGE AND SEX.

Age in years	Total	Males		Females	
		Number	Percent of total population	Number	Percent of total population
0-4	121	68	4.2	53	3.3
5-9	132	60	3.7	72	4.4
10-14	158	76	4.7	82	5.0
15-19	133	70	4.3	63	3.9
20-24	113	56	3.4	57	3.5
25-34	214	106	6.5	108	6.6
35-44	219	105	6.5	114	7.0
45-54	200	100	6.2	100	6.2
55-64	146	74	4.5	72	4.4
65 and over	187	87	5.3	100	6.2
Under 16	442	224	13.8	218	13.4
16 and over	1,183	579	35.6	604	37.2
Unknown	2	1	0.1	1	0.1
All ages	1,625	803	49.4	822	50.6

village and city. Difference between sex ratios is largest for those more than 65 years of age, the ratios being 171 and 87, respectively, for open-country and village. This partly results from the larger proportion of widows in the village population, many of whom formerly were wives of farm operators. Conversely, there is a tendency for widowers to continue to live in the open-country.

MIGRATION OF YOUNG PEOPLE

Migrations of family units and of individuals are both important parts of the total population movement. Whether the rural movement consists mostly of family groups or mostly of individuals will be determined largely by the number of young persons coming to maturity and by the economic opportunity for families as compared to the opportunity for younger individuals.⁷

It is to be expected that a large proportion of rural young people will leave home. This is especially true in a rural state like Iowa which is characterized by commercial types of agriculture and comparatively few opportunities for nearby industrial employment. In the Iowa situation, chief interest centers on the time and manner of their going, their destination and the effect on the population that remains.

Data were obtained for 3,295 persons 16 or more years of age who were children of the heads of the households included in this survey; 2,582 of these were sons or daughters of open-country families. Of the entire number, 1,830 had left home, the proportion away from home being 52 percent for the open-country and 70 percent for the villages.

SEX, AGE AND MIGRATION

This part of the study describes the characteristics of the 1,830 sons and daughters who had left home. Most of the migrants are females. The sex ratio of 84 males per 100 females indicates the marked difference between males and females in the proportion that migrates (table 4). The preponderance of females, characteristic of both open-country and village, is more pronounced among migrants from the open country, the sex ratio being 84 and 87 for open-country and village migrants, respectively. The dearth of females in the villages caused by

⁷ In farming localities where economic conditions are favorable, older farmers retire and more of the young people remain; while in localities where opportunities for commercial farming are limited, the older operators are economically unable to retire, and their mature sons and daughters must seek opportunity elsewhere. In localities where marginal farming and sub-standard living are common and other opportunities are relatively difficult to find, parents and mature children both stay home and exist as best they can on local resources. These statements are true in localities where the rural birth rate and especially the birth rate of the farming population is sufficiently high to create an "exportable surplus" of persons. The falling birth rate may in time change this situation.

TABLE 4. CHILDREN OF HEADS OF HOUSEHOLDS SURVEYED, OVER 16 YEARS OF AGE BUT NOT LIVING AT HOME, BY AGE, SEX AND RESIDENCE OF HEAD.

Age in years	Total	Open-country			Village		
		Total	Male	Female	Total	Male	Female
16-19	44	29	7	22	15	5	10
20-24	313	261	98	163	52	20	32
25-34	814	639	307	332	175	73	102
35-44	508	339	169	170	169	87	82
45-54	134	63	24	39	71	40	31
55-64	15	2	2	0	13	5	8
65+	2	0	0	0	2	1	1
Total	1,830	1,333	607	726	497	231	266

their migration is compensated somewhat by the migration of females from the open-country to the village.

Since fewer males migrate from the open-country the sex ratio of 116 for the open-country population over 16 years of age is not surprising. The sex ratio tends to narrow among that portion of the open-country population which is more than 25 years of age. At that age more of the males have left home, and some of those who remain have brought home brides from other localities (18).

Migrants from the open-country averaged younger at the time of the survey than those from the village (fig. 3). The predominance of open-country migrants is especially noticeable among those less than 35 years of age. Data indicate no significant difference in the ages at which open-country and village migrants leave home. The difference in age at the time of the survey appears to be due to the older average age of heads of village families, and the older average age of heads of families seems to be partly caused by the retirement of elderly farmers to the village. Their children naturally would be older than those of the younger household heads.

Figure 3 also shows the predominance of female migrants at various ages. A relatively small proportion of the migrants are less than 20 years of age, but these young migrants are predominantly females. It seems probable that the migration of those less than 20 years was curtailed somewhat during the period studied (fig. 8).

The proportion of the young people who are away from home is one-third higher for the village than for the open-country, as indicated in table 1. This difference holds for all ages except 20-25 years. In this age class the proportions of open-country and village populations away from home are approximately the same. Since this is the age at which most migration takes place, it seems probable that the migration is similar for both groups and that differences in population structure result in part from other factors.

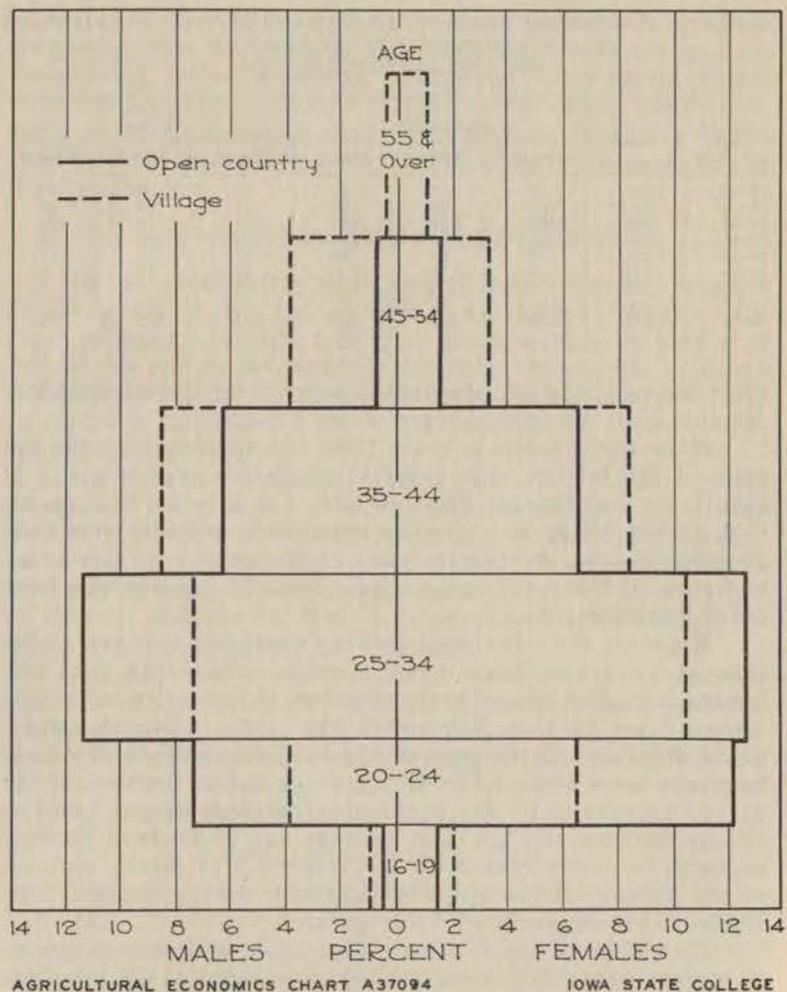


Fig. 3. Children of heads of households surveyed, not living at home Jan. 1, 1935, by age, sex and residence of head.

AGE AT LEAVING HOME

Girls who leave home migrate at a younger age than boys. The modal age, the high point in the migration of rural young people, is 18-20 years for females and 21-24 years for males (fig. 8). The proportion of females is greatest among those who leave home at ages 16 and 17, when four-fifths are females. The proportion of females decreases steadily as the age of leaving home increases, the proportions of females being two-thirds

for ages 18-19, slightly less than half for ages 21-24, one-third for ages 25-34 and one-fifth for those 35 or more.

Migration of young people was delayed somewhat by the depression. The modal ages at leaving home remained the same after 1929 as before, but the proportion of girls, 21-24, migrating was higher, while a higher percentage of boys more than 24 years of age migrated (fig. 8). The data indicate that the depression did not prevent the migration of rural young people but only delayed it temporarily.

RETURN DURING THE DEPRESSION

Migration from rural Iowa continued during the depression. Though the movement of young people slackened somewhat, it evidently continued, and those who left home remained away or, if they returned, they did not stay. Only 18, which is 1 in 70 of those who left home previous to 1929, had returned and were living at home on Jan. 1, 1935. Half of these were in the villages. Possibly heads of households did not give a complete report on this point, but it is obvious that the children who were away from home either did not return home in large numbers or, having returned, they left again previous to 1935.

PRESENT LOCATION OF CHILDREN

Young people usually migrate relatively short distances. Nearly four-fifths of the children away from home are still in

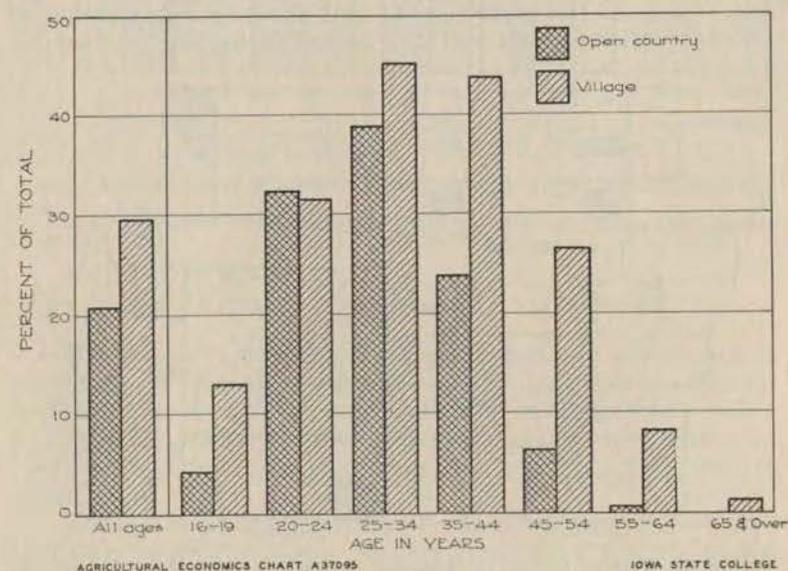


Fig. 4. Proportion of the total population over 16 years of age at home and away, that was away from home Jan. 1, 1935, by age and by residence of the head of the household.

Iowa (fig. 5). Three-fifths of those who moved out of the state are in a bordering state. Only 5 of the 1,830 young people are living outside the United States, and all of these are males. The larger proportion of females who have left home and are living in states adjoining Iowa also indicates that males move farther than females.

The largest number of young people migrating from Iowa move to Illinois and Minnesota. Other states adjoining Iowa—Nebraska, Missouri, Wisconsin and South Dakota—follow in the order named in numbers of former young Iowa people living within their boundaries.

SCHOOLING AND MIGRATION

The formal schooling obtained by all rural young people shows marked differences between open-country and village youth. Nearly half of those living in the open-country have not attended school beyond the eighth grade; nearly half have attended high school; less than one-tenth have more than a high school education (fig. 6 and table C). By comparison, village young people are much better educated. Slightly more than a fourth of them are in each of these classifications: (a) stopped at eighth grade or less, (b) attended high school but not graduated and (c) graduated from high school. The two most striking differences between open-country and village are the larger proportion of open-country young people who do not attend school beyond the eighth grade and the larger proportion of village youth who continue their schooling beyond high school.

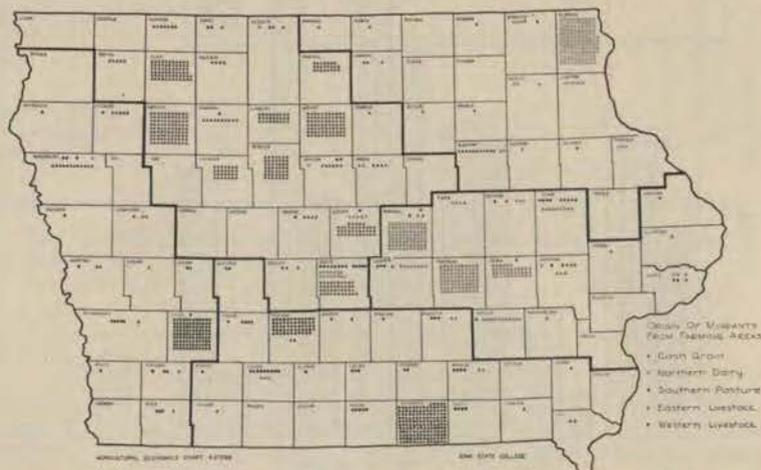


Fig. 5. Present county of residence of children of heads of households, over 16 years of age who were living away from home Jan. 1, 1935. The location of each symbol indicates the present county of residence for one person away from home. The kind of symbol indicates the farming area in which the parents were living at the time of the survey.

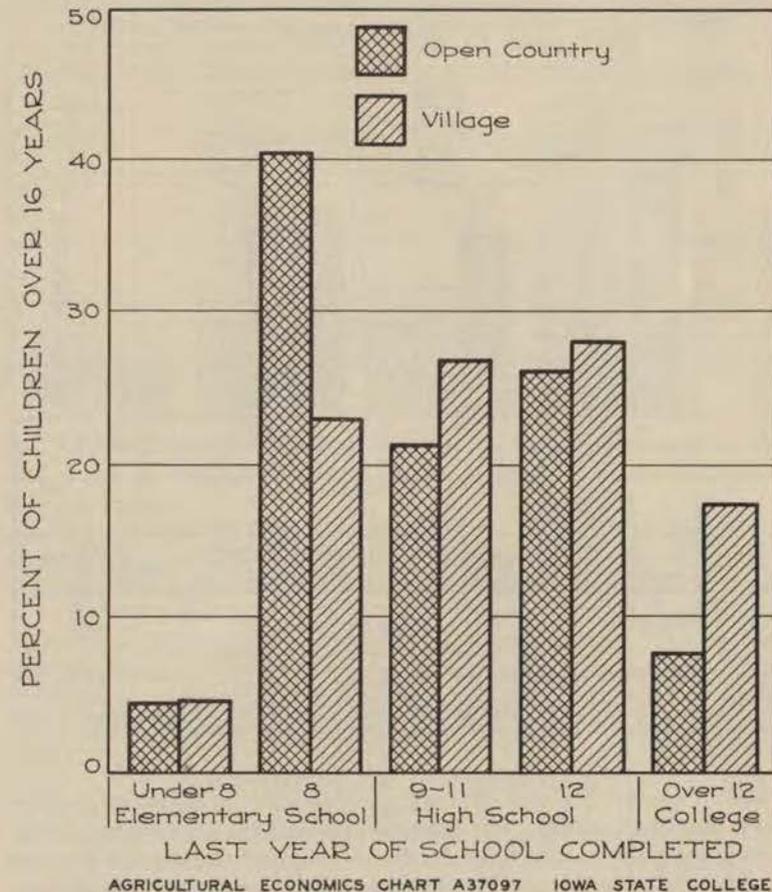


Fig. 6. Schooling of all children over 16 years of age of heads of households surveyed.

SCHOOLING AND YOUTH AWAY FROM HOME

Differences in amount of schooling result in differences in migration. Youth who have not attended high school make up half of the total open-country youth who have left home (table 5 and fig. 7). Those who have not attended high school are also above average in the proportion of their number which has left home.

Youth who have attended high school have the highest proportion remaining at home. Among those who attended but did not graduate from high school the proportion remaining at home is greater than among those who graduated.

Education beyond high school is also favorable to migra-

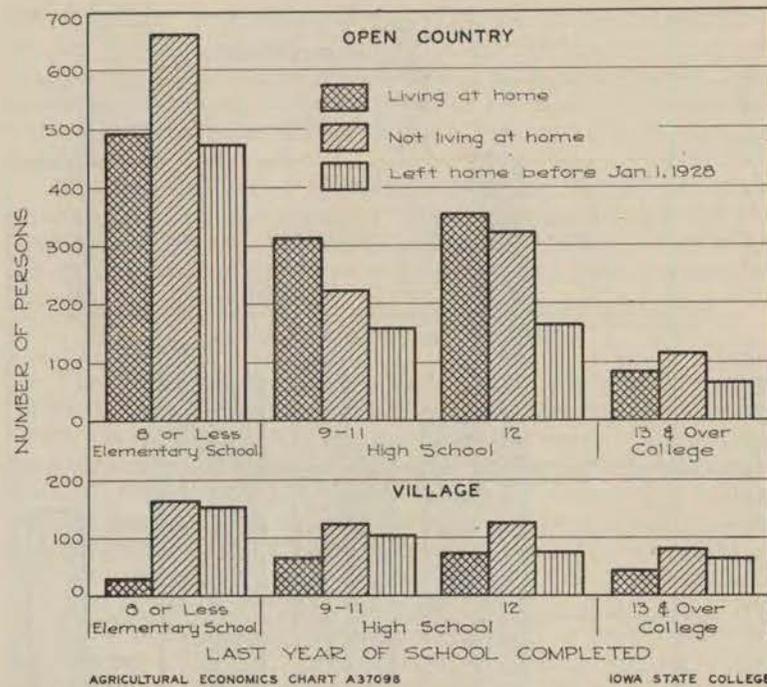


Fig. 7. Children 16 years of age or over, of heads of village and open-country households, at home or away, by years of schooling received.

tion. One or 2 years of college does not increase migration to a marked extent. The highest proportions away from home are among those who have continued beyond the second year in college. It should not be concluded that a college education is a cause of leaving home, since it is more probable that those young people who intend to leave home seek a college education as a means to facilitate the change.

The proportion of high school graduates which left home is smaller than that found by Hamlin (2) who states that 56.8 percent of all graduates of high schools in seven Iowa counties had left the county. Hamlin's proportions are larger because they included a larger proportion of village students and because he included those who had gone on from high school to college, a larger proportion of whom are away from home (tables 5 and 6).

A higher proportion left home after 1929 than previously among those who had graduated from high school or had continued in school beyond the high school years. The proportion of those with eighth grade education who left home was correspondingly lowered (table 5). Since a higher proportion of

TABLE 5. ALL CHILDREN 16 YEARS OF AGE OR OLDER OF HEADS OF OPEN-COUNTRY HOUSEHOLDS, BY LAST YEAR OF SCHOOL COMPLETED AND BY TIME OF LEAVING HOME.

Last year of school completed	Total (number)	Not left home	Left home (percent)		
			Total	Before Jan. 1, 1929	After Dec. 31, 1928
Under 8	110	50.0	50.0	40.9	9.1
8	1,046	41.6	58.4	41.2	17.2
9	177	50.3	49.7	34.5	15.2
10	203	53.2	46.8	33.0	13.8
11	167	69.4	30.6	18.6	12.0
12	678	52.2	47.8	24.3	23.5
13	49	49.0	51.0	30.6	20.4
14	87	47.2	52.8	26.4	26.4
15	15	33.3	66.7	26.7	40.0
16 or over	47	25.5	74.5	49.0	25.5
Unknown	3				
All years 2,582		48.0	52.0	33.6	18.4

the educated youth migrated during the depression, evidently education is becoming a more important aid to adjustment upon leaving home.

Village results are shown in table 6. In general they substantiate the results obtained for the open-country youth away from home. Both those with elementary schooling and those with college education tend to leave home, while more of those who attend high school stay. A larger proportion of the better educated also left home during the depression than before. The increase in proportion of migrants among those with a high school education was especially noticeable during the depression.

MIGRATION OF HOUSEHOLDS

The movements of households from place to place frequently assume a definite direction which characterizes the migration. The general movement of population from east to west was an

TABLE 6. ALL CHILDREN 16 YEARS OF AGE OR OLDER OF HEADS OF VILLAGE HOUSEHOLDS, BY LAST YEAR OF SCHOOL COMPLETED AND BY TIME OF LEAVING HOME.

Last year of school completed	Total (number)	Not left home	Left home (percent)		
			Total	Before Jan. 1, 1929	After Dec. 31, 1928
Under 8	32	28.1	71.9	56.3	15.6
8	165	10.3	89.7	83.0	6.7
9	43	18.6	81.4	67.4	14.0
10	87	31.0	69.0	59.8	9.2
11	63	52.4	47.6	38.1	9.5
12	201	36.3	63.7	37.8	25.9
13	25	48.0	52.0	48.0	4.0
14	39	33.3	66.7	48.7	18.0
15	21	28.6	71.4	57.1	14.3
16 or over	37	24.3	75.7	56.8	18.9
All years	713	29.0	71.0	56.1	14.9

outstanding example of such a movement. The concerted wave-like movements by which certain groups occupy new territory or supplant existing groups have been reported in this region by Kolb and others (5, 7, 8 and 11) and in Iowa by Harter and Stewart (3). Characterization of recent movements of rural households in Iowa is much more complicated because there appears to be no definite direction of movement.

CHANGES OF RESIDENCE

Before analyzing family migration we shall consider certain characteristics of the households which are the basis for the analysis which follows. Of the 2,384 households surveyed, 1,880 are open-country and 504 are located in villages. Male heads of households number 1,870 open-country and 428 village. Not all of these male heads of households, however, had established a family, and not all of those who had established families had done so prior to Jan. 1, 1928. Only 1,539 male heads of open-country households and 356 male heads of village households had a continuous family history from 1928 to 1935, a total of 1,895. Except as otherwise stated, the experience of these 1,895 male heads of families forms the basis for the following analysis of family mobility.⁸

Stability of residence, rather than mobility, is the chief characteristic of the families studied. Approximately three-fourths of the households made no change in residence during the 7-year period (table 7.)⁹ The proportion of the open-country families which changed residence is slightly higher than the proportion for the village. This tendency toward greater movement shown by open-country families becomes more marked with increases in the number of moves. For example, 1.4 percent of the village families made three or more moves, while 2.3 percent of the open-country families moved three or more times during the 7-year period. One village family moved four or more times, while 11 open-country families moved four or more times.

The tendency for farmers to move more frequently than villagers seems to be well established. When the total number of moves is considered, the rate of movement for village households is 4.1 out of each 100 per year compared to 5.4 for all open-country households. The rate per 100 heads who change is more nearly the same, 19.4 for the village and 20.4 for the

⁸ The 331 open-country and the 72 village male heads of households who had either not married or had married subsequently to Jan. 1, 1928, or whose family had been discontinued for any reason are usually excluded or tabulated separately because their experience is either that of a non-family group or does not extend over the entire period of the survey.

⁹ See definition of change of residence—here called movement—p. 280, *supra*. It seems probable that the number of changes of residence at least would have been doubled by including movement from one house to another within the township or village.

TABLE 7. MALE HEADS OF OPEN-COUNTRY AND VILLAGE HOUSEHOLDS WHO HAVE MADE THE SPECIFIED NUMBER OF CHANGES OF RESIDENCE OR OCCUPATION BETWEEN JAN. 1, 1928 AND JAN. 1, 1935.

Number of changes	Changing residence		Changing occupation	
	Open-country	Village	Open-country	Village
All heads	1,539	356	1,539	356
No change	1,134	280	1,208	246
1	285	55	274	83
2	84	16	44	18
3	25	4	8	3
4	7	1	2	3
5	2	0	2	0
6 or more	2	0	1	3

open-country. These data indicate that the greater open-country movement resulted primarily from the larger proportion of open-country heads who moved some time during the period and not so much from the more frequent moving of families.

Evidently tenants do most of the moving. Nearly three-fourths of the changes of residence were made by tenants, who comprised 55 percent of the total number of households. Three-eighths of the tenants changed residence as compared with one-eighth of the others. Though the greater number of changes of residence was made by tenants, the outstanding difference was the much higher proportion of tenants who moved only once. The most significant difference, statistically, was between the proportion of tenants and of others who made only one change of residence.

CHANGES OF OCCUPATION

Although a larger proportion of open-country households changed residence, it was the heads of village households who most frequently changed their occupation. The proportions changing during the 7-year period, 1928 to 1935, was 31 percent for the village and 21.5 percent for the open-country (table 7).¹⁰ This difference between open-country and village becomes more pronounced as the number of changes in occupation increases. In the village 1.7 percent changed occupation four or more times, while only 0.3 percent in the open-country changed four or more times. These numbers are too small to be statistically conclusive or to affect markedly the total amount of change; but the difference is well sustained. The annual rate of occupational change was 3.8 per 100 heads of open-country households as compared with 6.4 changes for the village. Much of this difference is a result of the higher proportion of heads of village households who changed occupations but once during the 7-year period, the proportions being 17.8 percent for the open-country and 23.3 percent for the village (table 7).

¹⁰ A change from laborer to renter or owner, or vice versa, is here considered an occupational change.

TABLE 8. NUMBER OF CHANGES OF RESIDENCE AND OF OCCUPATION MADE BY EACH MALE HEAD OF OPEN-COUNTRY HOUSEHOLDS, 1928 TO 1935.

Changes of occupation	Total	Changes of residence				
		None	1	2	3 or more	Unclassified*
Total male heads	1,870	1,134	285	84	36	331
No change	1,353	1,032	140	26	10	145
1 change	433	98	141	27	8	159
2 or more changes	84	4	4	31	18	27

*Includes heads who established a family between 1928 and 1935.

Certain reasons for these differences appear quite obvious. In the village the range of occupational choices is greater than in the open-country where farming is the principal industry. This helps to explain the greater occupational change in the village. A change of open-country residence, in the case of farm renter or laborer, may be necessary without a change of occupation. On the other hand, a villager may more easily change occupation without changing residence.

CHANGES OF RESIDENCE AND OCCUPATION

Data indicate that changes in residence and in occupation are closely related to each other. This is true for farm owners and renters and for villagers (tables 8, 9 and 10). Relatively few change residence without changing occupation and vice versa. For example, one-fifth of those who change residence do not change occupation, and two-fifths of those who change occupation do not change residence (table 8). Stated another way, only 1.4 percent of those who changed residence once changed their occupation two or more times; while half of those who changed residence three or more times changed their occupation two or more times.

UNCLASSIFIED FAMILIES

The unclassified families are the ones which were either established or broken during the period, 1928 to 1935. Because

TABLE 9. NUMBER OF CHANGES OF RESIDENCE AND OF OCCUPATION MADE BY EACH MALE HEAD OF FARM-TENANT HOUSEHOLDS, 1928-1935.

Changes of occupation	All tenants	Changes of residence				Unclassified†	No family established*
		None	1	2	3 or more		
All tenants	870	548	234	68	30	—	—
No change	592	380	114	24	10	40	24
1 change	234	47	55	16	3	98	15
2 or more changes	44	1	3	14	11	12	3
Unclassified†	—	84	47	13	6	—	—
No family established*	—	36	5	1	0	—	—

*Includes heads who had no family established at time of survey.
†Includes heads who established a family between 1928 and 1935.

TABLE 10. NUMBER OF CHANGES OF RESIDENCE AND OF OCCUPATION MADE BY EACH MALE HEAD OF VILLAGE HOUSEHOLDS, 1928-1935.

Changes of occupation	Total	Changes of residence			
		None	1	2 or more	Unclassified*
Total	428	280	55	21	72
No change	276	223	20	3	30
1 change	113	47	32	4	30
2 or more changes	39	10	3	14	12

*Includes heads who established family between 1928 and 1935.

of that fact these families did not have a continuous family history during the period covered by the survey. Complete data are not available, so these families are described only partially. In general, they show characteristics similar to those of the population of which they are a part (tables 8, 9 and 10). Unclassified families conform closely to the average in number of changes of residence. The unclassified in the open-country show a marked tendency to make one change in occupation and residence. This is usually a change from farm-hand to renter, often made at the time of marriage. In general, the omission or inclusion of the unclassified families does not materially change the averages nor invalidate the conclusions drawn.

RANGE OF MIGRATION¹¹

To the former statement that a majority of open-country and village families did not change residence during the 7-year period should now be added the statement that most of those who changed residence moved only short distances (fig. 9). Stated another way, the number which moved any given distance is inversely proportional to the distance moved. That this also holds true for each of the major occupational classes in the open-country is indicated by table 11.

TABLE 11. MALE HEADS OF OPEN-COUNTRY HOUSEHOLDS, BY OCCUPATION JAN. 1, 1935, AND BY RANGE OF MIGRATION, 1928-1935.

Occupation Jan. 1, 1935	Total	Lived "in county of survey" and in:			
		Same county	Other counties in same state	Other state or country	Unclassified*
Total	1,870	1,371	125	43	331
Farm owners and managers	810	706	21	9	74
Farm tenants	874	572	81	23	198
Farm laborers	95	36	10	6	43
Other unskilled and unemployed	48	28	7	4	9
All other	43	29	6	1	7

*Includes heads who established a family during the 7-year period.

¹¹Data used here are for 2,039 heads of families, both country and village, both males and females, who had a continuous family history during the period, 1928 to 1935. This number is obtained by adding the 1,944 open-country to the 507 village families and subtracting the 412 unclassifiables, 337 of them in the open-country and 75 in the village.

Comparison of farm tenants with owner operators on a proportional basis indicates that a higher proportion of tenants move from other counties within Iowa than owners. The ratio of owners to tenants moving from other states is higher than the ratio between owners and tenants moving from other counties. Owner-operators tend to take few moves but migrate long distances, while tenants, though moving more frequently, tend to move shorter distances.

The radial distances moved by the various occupational classes in the open-country varied widely. This is illustrated by the following proportions of the various occupational groups which have lived in another state or country; 1 percent for farm owners, 3 percent for tenants, 6 percent for farm laborers and 8 percent for the unskilled and the unemployed.

Village families are similar to open-country families in the range or the radial distance of migration from 1928 to 1935. Occupational differences, however, tend to be obscured somewhat by the larger number of occupations in the village when compared with the open-country. The unskilled and the unemployed ranked highest in the proportion of those who had lived in some other county some time during the 7-year period, 1928 to 1935. Professional persons, semi-skilled and clerical workers, skilled workers and business men ranked next in descending order in the proportion of each which had lived in some other county. Farm owners and tenants who lived in villages ranked lowest; that is, during the 7-year period none of them had lived outside the county in which they resided at the time of the survey.

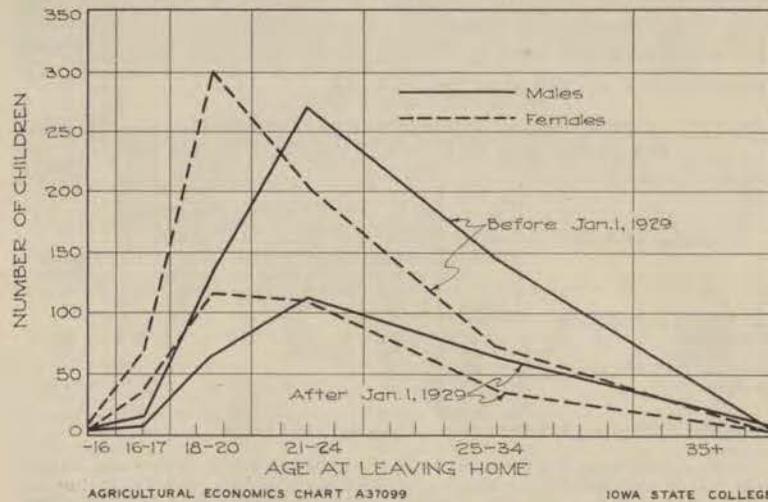


Fig. 8. Children of heads of open-country and village households, who have left home, by the time of leaving and by age at leaving home.

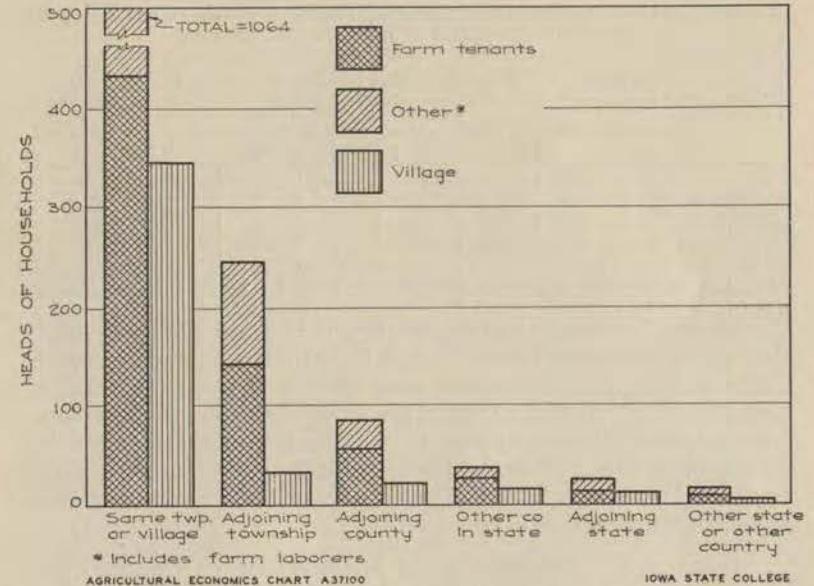


Fig. 9. Range of migration of heads of households by residence and tenure status, 1928-1935. This does not include those with no family in 1935 or those who established a family during the period 1928-35.

The range or radial distance of migration is imperfectly related to the number of moves made, but it increases somewhat with increases in the number of moves. For example, the proportion of those who have lived in no other county decreases as the number of moves increases. Also the proportion which has lived in some other state or county during the 7-year period tends to increase with the number of moves. These tendencies hold true for both open-country and village and farm renters and owner-operators (tables 12, 13 and 14).

The local character of most of the movement is conclusively shown by the way the previous places of domicile cluster

TABLE 12. RANGE OF MIGRATION OF ALL HEADS OF OPEN-COUNTRY HOUSEHOLDS, BY CHANGES OF RESIDENCE, 1928-1935.

Changes of residence	All heads		Percent which lived in county of survey and in:					Unclassified and no family established*
	Number	Percent	No other county	Adjoining counties	Other county in state	Adjoining state	Other state or country	
Total	1,944	100	88.9	5.9	2.5	1.6	1.1	—
No change	1,413	100	84.2	—	—	—	—	15.8
1 change	377	100	49.9	15.6	6.4	4.5	2.1	21.5
2 changes	103	100	37.9	20.4	10.7	5.8	6.8	18.4
3 or more	51	100	35.3	15.7	7.8	7.8	5.9	27.5

*Includes heads of households who did not have family established during entire 7-year period.

TABLE 13. RANGE OF MIGRATION OF ALL HEADS OF FARM-TENANT HOUSEHOLDS, BY CHANGES OF RESIDENCE, 1928-1935.

Changes of residence	All heads		Percent which lived in county of survey and in:					Unclassified and no family established*
	Number	Percent	No other county	Ad-joining counties	Other county in state	Ad-joining state	Other state or country	
Total	878	100	84.4	9.1	3.4	1.7	1.4	—
No change	554	100	78.3	—	—	—	—	21.7
1 change	226	100	46.5	18.1	8.0	3.1	1.3	23.0
2 changes	67	100	38.8	17.9	8.9	6.0	7.5	20.9
3 or more	31	100	45.2	16.2	6.4	6.4	6.4	19.4

*Includes heads of households who did not have family established during entire 7-year period.

around the townships surveyed (fig. 10). The distances traveled are usually small even though the number of moves is relatively large. It would even seem that a large proportion of families which moved across state lines into Iowa moved relatively short distances and arrived at their present location by a series of moves rather than by one long one. Data furnish no evidence that the movements of rural families has proceeded in any definite direction.

TOWN-COUNTRY MIGRATION

The tendency for farm families to stay on farms and, conversely, for village families to remain in villages is emphasized by the results of this study which indicate also that this tendency remained strong during the depression years. During the 7-year period more than nine-tenths of the open-country families had lived in the open-country only, while five-sixths of the village families had lived in villages only (tables 15 and 16).

Data indicate that the net movement of families was from the open-country to village and city. For example, the proportion of village dwellers who had lived in the country during the 7-year period was one and one-half times as large as the proportion of open-country dwellers who had lived in village or city (tables 15 and 16). The fact that both these proportions are relatively small emphasizes again the point previously stated, that most of the movement from open-country to village and city is composed of the young people who leave home and

TABLE 14. RANGE OF MIGRATION OF ALL HEADS OF VILLAGE HOUSEHOLDS, BY CHANGES OF RESIDENCE, 1928-1935.

Changes of residence	All heads		Percent which lived in county of survey and in:					Unclassified and no family established*
	Number	Percent	No other county	Ad-joining counties	Other county in state	Ad-joining state	Other state or country	
Total	507	100	86.0	4.5	5.3	3.4	0.8	—
No change	385	100	89.4	—	—	—	—	10.6
1 change	93	100	30.1	18.3	10.8	8.6	3.2	29.0
2 or more	29	100	17.3	17.3	24.1	13.8	3.4	24.1

*Includes heads of households who established family during the 7-year period.

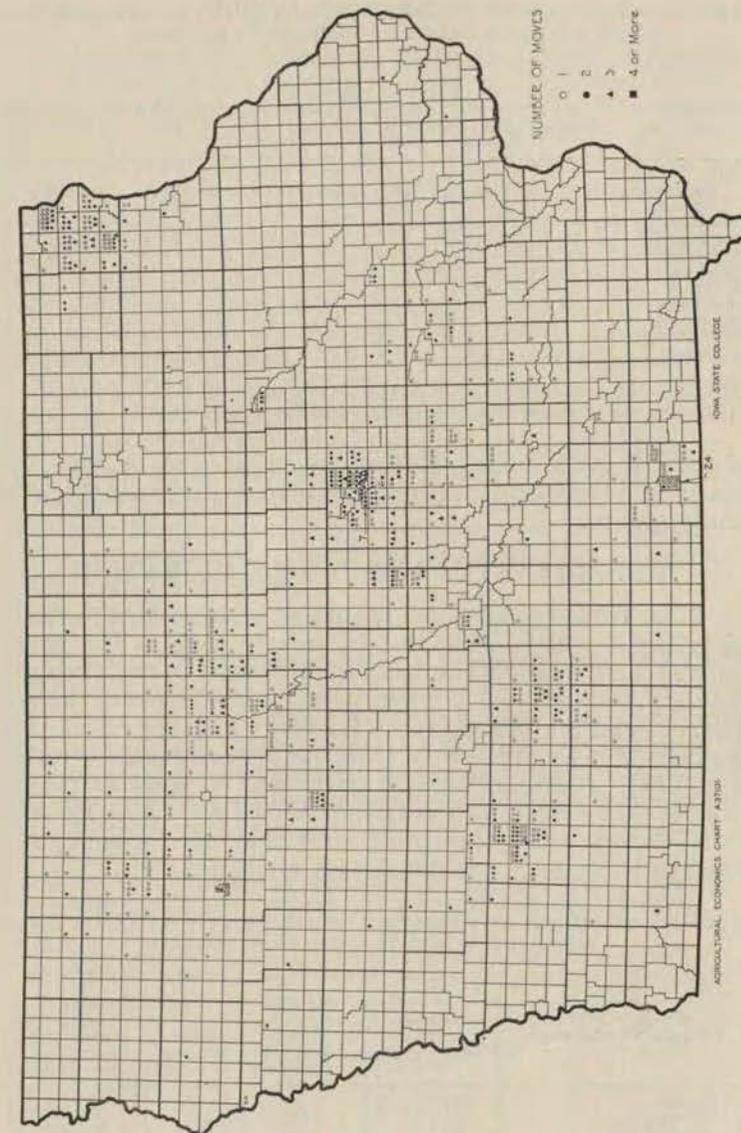


Fig. 10. Location of each place of residence outside the township surveyed for all heads of households surveyed, 1928-35.

TABLE 15. DIRECTION OF MIGRATION OF ALL HEADS OF OPEN-COUNTRY HOUSEHOLDS, BY RANGE OF MIGRATION, 1928-1935.

Direction of migration	All heads	Range of migration			Unclassified*	No family established†
		Same county	Other county in same state	Other state or country		
Total	1,944	1,435	127	45	242	95
Number	100	100	100	100	100	100
Percent						
Continuous residence	91.7	94.7	70.1	53.3	89.3	97.9
Village and city	5.7	4.1	17.3	26.7	7.0	2.1
Open country, and city to open country	0.9	0.5	3.2	8.9	1.2	0.0
Open country to village or city	0.9	0.4	5.5	4.4	0.8	0.0
All other	0.8	0.3	3.9	6.7	1.7	0.0

*Includes heads of households who established a family during the 7-year period.

†Includes heads of households with no family established at time of survey.

migrate as individuals. This movement is a more important factor in town-country migration than the moves made by family groups.

TENURE STATUS AND FAMILY MIGRATION

Since tenancy bears such important relationships to family migration it will be examined in greater detail. The importance of these relationships has been indicated by two facts previously presented; that a larger proportion of tenants changed residence and that among those families which moved, the tenants moved more frequently than the owner-operators (tables 12 and 13). Changes in tenure status will be analyzed to indicate how they relate to changes in migration. Also the associated factors will be examined, since they are commonly supposed to be directly associated with migration.

TABLE 16. DIRECTION OF MIGRATION OF ALL HEADS OF VILLAGE HOUSEHOLDS, BY RANGE OF MIGRATION, 1928-1935.

Direction of migration	Range of mobility				Unclassified*	No family established†
	Total	Same county	Other county in same state	Other state or country		
Total cases	507	377	39	16	60	15
Percent	100	100	100	100	100	100
Continuous residence	84	94	44	50	62	73
City only and village to city and city to open-country	5	2	5	31	15	20
Open-country only and open-country to village	9	4	36	13	20	7
Open-country to city, open-country to village to city, village to open-country and all other	2	0	15	6	3	0

*Includes heads of households who established a family during the 7-year period.

†Includes heads of households with no family established at time of survey.

SIZE OF FARM AND TENURE

The size of the farm upon which the family is located is one of those factors which is more directly related to tenure status than to migration. The proportion of all owners who operate farms less than 100 acres in size is twice as large as the proportion among renters (table 17). On farms over 100 acres tenants operate a majority of the farms in each size, but the proportion between owners and tenants remains quite constant regardless of size. An exception is furnished by the owners on large farms, since owners operate three-fifths of all the farms over 500 acres in size. Since tenants move more than owners it is easy to see from the foregoing that there is more migration among operators of farms of more than 100 acres (except farms of over 500 acres where owners predominate) than among those living on farms of less than 100 acres and that this movement is more closely related to tenancy than to the size of the farm.

The range or radial distance of migration is also related to tenancy in a manner similar to that shown in table 17. The variations found appear to result mostly from differences in the tenant situation rather than from differences in size of farm within each tenure class.

AGE OF OPERATOR AND TENURE

The age of the farm operator is one of the most interesting and important of the factors related to tenancy and migration. Here again the relationship is closer between age and tenancy than between age and migration. That is, while it is true that tenants average younger than owner-operators, it is also true that among either owners or tenants differences in age usually are not accompanied by significant differences in migration.

TABLE 17. MALE HEADS OF HOUSEHOLDS CONTINUOUSLY ENGAGED IN FARM OPERATION, 1928-1935; BY TENURE, SIZE OF FARM AND RANGE OF MIGRATION.*

Tenure status and size of farm	All heads	Lived in county of survey and in:		
		No other county	Adjoining counties	All other
Owner operators	741	712	13	16
Under 50 acres	65	63	1	1
50-99	155	149	2	4
100-174	307	292	9	6
175-259	131	130	0	1
260 or more	83	78	1	4
Tenant operators	677	572	58	47
Under 50 acres	22	19	1	2
50-99	80	64	4	12
100-174	320	280	26	14
175-259	157	125	20	12
260 or more	98	84	7	7

*This includes both village and open-country farm operators but excludes those who had no family established and those who established a family during the 7-year period.

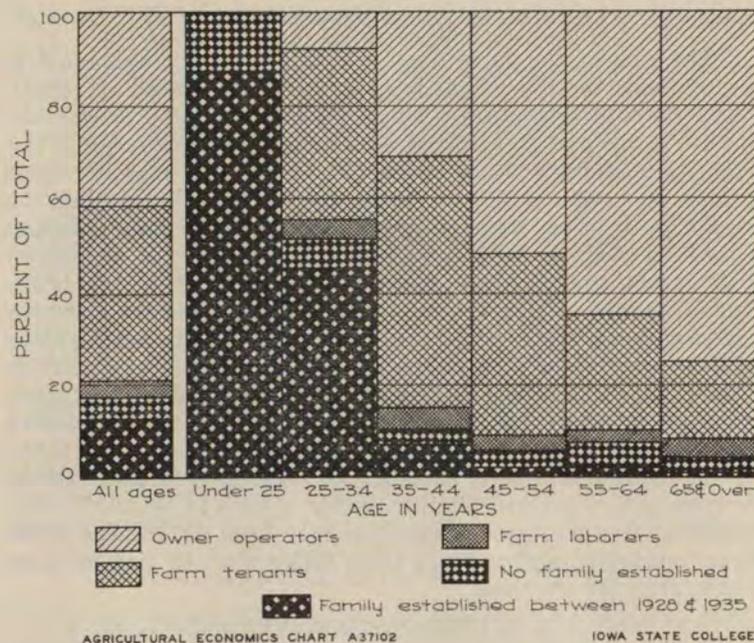


Fig. 11. All male heads of households engaged in agriculture, by age and tenure status.

The following facts have an interesting and significant relation to the above points. The modal age for all male heads of farm households is 35-44 years. The number in the 45-54-year age class is nearly as large as the 35-44 class, and both together constitute 52 percent of the farm families (table F). Owner-operators are older than tenants, the modal group for owners being 45-54 and for tenants, 35-44 years of age. The modal age for the unclassified families established since 1928 is 25-34 years. Although two-thirds of them are tenants, these unclassified families are too young to be representative of any of the tenure groups in so far as age is concerned. These unclassified families affect the total tenure situation somewhat, but their influence is not significant within any age group over 35 years.

The data also indicate certain relationships involved in the operation of the so-called "agricultural ladder" during this period, 1928-1935. In the first place the step-like structure of fig. 11 indicates that the proportion of farm owners increases quite regularly and steadily with each increase in the age of all operators; being lowest at ages 25-34 and highest at ages 65 and over. In comparing owners and tenants further, the num-

ber as well as the proportion of tenants among farm operators decreases much more rapidly than the number or the proportion of owners (table F). Thus it is indicated that tenants change to owners nearly as rapidly as the owners retire or die. While this would indicate that the agricultural ladder was operating and that tenants were becoming owners during this period, two qualifications of the statement seem rather important. The first is a limitation of the study itself which does not include the families which have left these same farms during the 7-year period. Data for these families would measure the extent to which farmers have left farming and moved to town because they have lost ownership or because they could not rent a farm. Data in table N indicate that there is a considerable number of these. The second limitation is the known increase in farm tenancy during this period. Data indicate that this increase occurred mostly during the years 1931-33, inclusive, (table 18). More important, the increase in tenancy coincided with the increase in corporation-owned farms during this period. The number of farms which were privately owned but tenant-operated increased slightly in 1932 and 1933; then decreased again. There was no permanent increase in the number of farms owned by private landlords during the 7-year period. It may be safely concluded that tenant succeeded owner during the 7-year period much as before on those farms which were not corporation-owned. The increase in corporation ownership increased the amount of tenancy and thereby decreased the number of farms privately owned and operated below what it would have been otherwise.

CHANGES IN TENURE STATUS

Persons who were operating farms in 1935 had not experienced any general lowering of tenure status during the years, 1928-1935. Of the 1,809 heads of households only 84 had been reduced in status; 65 from owner to tenant, 5 from owner to farm laborer and 14 from tenant to laborer (table G). Although slightly less than 1 in 20 of all farmers were lower in the agricultural scale than in 1928, the proportion among those who

TABLE 18. TYPE OF FARM OWNERSHIP AND TENURE BY YEARS, 1928-1935.

Ownership of farms	1935	1934	1933	1932	1931	1930	1929
All farms	1389	1389	1389	1389	1389	1389	1389
Corporation owned	121	116	84	68	57	52	52
Privately owned and operated	624	626	641	661	683	691	691
Privately owned but tenant operated	644	647	664	660	649	646	646

had changed residence during the period was much greater, nearly one in five. Such a reduction in tenure status applied to the state as a whole would give a total of 10,000 farmers with lower status than in 1928. While this is a considerable number, it would hardly be sufficiently large to reverse the traditional ascent from tenancy to ownership. Data in table N indicate that a considerable number of former farm-operators were receiving relief. It would seem, therefore, that the operators and laborers who have left the farm are in a much more insecure position than those who remain. Stating this another way, farmers who could not maintain their security on the farm were not in a favorable position to maintain it elsewhere during 1928-1935.

Two important aspects of mobility are: First, the proportion of all families studied which changed residence; second, the number of moves or changes of residence made by each of these families. Each of these aspects will be analyzed separately because of the marked differences between them during the years 1928-1935.

The proportion of heads of household who changed residence varies widely among the different tenure groups. One-fourth of the 1,489 families farming continuously from 1928 to 1935 changed residence at least once. The proportion was 12 percent for owners, 37 percent for tenants and 50 percent for farm laborers. It is evident that the proportion of families which move is superior to the number of moves as an index of mobility.

The number of moves per family made by those who changed residence is also important, showing small but consistent differences between tenure classes. As would be expected the owners moved least frequently and farm laborers most frequently. The average number of moves per family moving during the 7 years was 1.2 for owners, 1.4 for renters and 1.8 for farm laborers. Stating this another way, the annual rates of change for each 100 families moving was 17 for owners, 20 for renters and 26 for farm laborers. These differences though small were well sustained within each tenure group.

The relation of the age of the operator to the two mobility factors referred to above is interesting and significant. The number of moves per household among those households which change residence did not vary significantly with changes in age for either owner-operators or tenants. In other words, older farm operators did not move more frequently than younger ones and vice versa. Older farm laborers, on the other hand, moved more frequently than younger ones until age 65 was reached, after which the number of moves declined sharply.

The relation between the age of the head of the household and the proportion which changed residence is shown in fig. 12. First it should be noticed that when all farm households are included, the average proportion of households moving decreases as the age of the head increases until age 65 is reached. This decrease is caused by a combination of two situations; first, the proportion of owners who change residence is uniformly smaller than the proportion of renters who change; second, the proportion of owners increases with the age of the operators. The largest proportion of families changing residence is at 25-34 years of age for tenants and 35-44 for owner-operators. Neither among owners nor renters is there a consistent decrease in the proportion moving as the age increases. Farm laborers, few in number, show even less tendency to decreased movement with increasing age. These facts make it all the more evident that the age of the operator affects mobility only indirectly, principally through its established relation to tenure status.

TENURE AND EMPLOYMENT

The tendency is strong for farm families, regardless of tenure status, to engage in agriculture exclusively and continuously. During the 7 years, 1928-1935, 95 percent of the owners, 92 percent of the tenants and 81 percent of the farm laborers had not engaged in any other occupation (table H).

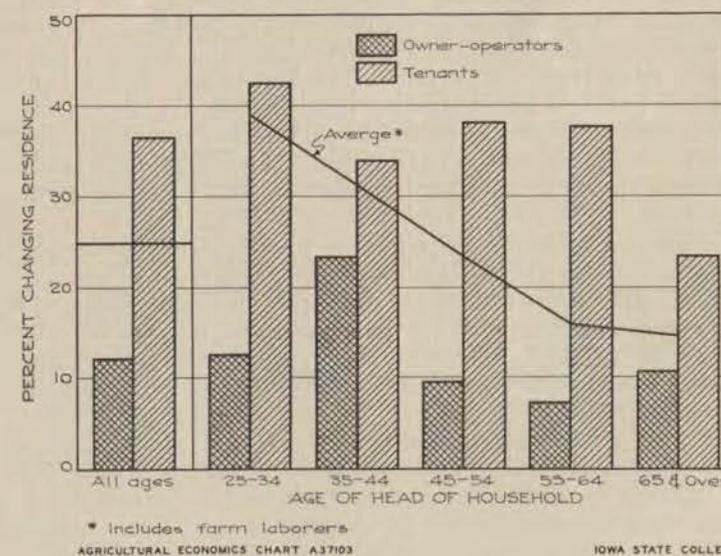


Fig. 12. Male heads of households engaged in agriculture who changed residence during the 7-year period 1928-35, by age of head. This does not include those with no family in 1935 or those who established a family during the period 1928-35.

Unemployment among farmers on Iowa farms is negligible. Only 15 of the male heads of families, approximately 1 percent, were unemployed on Jan. 1, 1935. The proportion was highest among farm laborers, nearly 10 percent of whom were unemployed. The difference between owners and tenants was not significant.

TENURE AND RELIEF

Tenancy and relief history are significantly related, and the relationship again emphasizes the differences between the various tenure classes. The proportion of operators continuously engaged in agriculture who received relief from a public agency during 1933 to 1934 was very small—less than 4 percent of the total. Less than 2 percent of the owner-operators in 1935 received relief in 1933 or 1934. The percentage was 3.1 percent for tenants, 14.2 percent for farm laborers and 3.9 for those families established during the period 1928-35. It seems fair to conclude that relief had not been a major problem among those who were farming in 1935 and that such relief as had been granted served to emphasize the relatively insecure position of the farm laborers.

THE RURAL RELIEF SITUATION

The proportion of families which received relief, although small in the open-country, was much larger in the village. Among all the open-country families slightly less than 4 percent were on relief some time in 1933-34 (table I). Three times as large a proportion, 12 percent of all the village families, had received public assistance some time during the 2 years. A fourth of the open-country families and half of the village families on relief received aid both years. The effect of the drouth in 1934 is shown by the large number of families on relief that year.

Unclassified farm families, those which established a family during the years 1928-35, did not vary significantly from other farm families in the proportion on relief. A higher proportion, 18 percent, of unclassified village families received relief. This proportion which is 50 percent above the average for all village families reflects the uncertainty of employment in the villages during 1933-34.

Families with female heads had a smaller than average proportion on relief in both open-country and village during 1933-34. Among 74 such open-country families the proportion was 2.7 percent compared with 3.7 percent for all rural families. Among 79 village families with female heads the proportion was 5.1 percent as compared with 12 percent for all village families. This ability of female heads of families to stay off

relief was the more remarkable in this instance because a third of them were over 65 years of age. The superior ability of elderly ladies to do without public assistance has been described in Iowa by Trauger (14).

MIGRATION OF CHILDREN FROM RELIEF FAMILIES

Relief status had little if any effect on whether or not children left home. The migration of children was proportionally the same from families who were on relief in 1933-1934 as from families that did not receive relief. Analysis of the entire population over 16 years of age, at home and away, indicates no significant difference between the proportion of the population at home which was on relief and the proportion of children away from home which belonged to families which received relief some time during 1933-1934. The proportion on relief, including those whose status was unknown, was 3.75 percent for the open-country at home, 3.7 percent for those away. The proportion was 14.5 percent for the village population at home and 14.6 percent for those away from home (table K). Evidently the fact that families were on relief at the time of the survey was not associated with any factor which affected the proportion of children who left home during or previous to the depression.

RELIEF AND FAMILY MIGRATION

The rural relief situation evidently is related rather closely to the migration of rural families. Although data are not at hand with which to analyze the relationship in detail, certain facts stand out. First there is a strong tendency for farm families to move to town when for any reason they become unemployed in the country. Nearly 4,000 former Iowa farm operators, both tenants and owners, were receiving relief in March, 1935 (table N). This number was more than twice as large as the number of farm operators on farms who were receiving relief. In addition 10,954 farm hands were receiving relief in March, 1935.

Thus it appears that many persons formerly engaged in farming were on relief and that many of these were living in village or town. Facts have been presented to show that the proportion on rural relief is larger in the village than in the open-country. Now it appears that village relief is increased as a result of the movement of farmers and farm laborers to the village. Included among these are farm hands and laborers out of work, retired farmers with depleted savings, owners who lost their farms through foreclosure and renters who were replaced by other renters or by new or former owners. The drouth in 1934 accentuated the movement which for the first

time became a serious factor in the rural relief situation during the depression.

RELIEF AND EMPLOYMENT

It would be quite unfair to blame the entire rural relief situation on the drouth of 1934, so additional data on rural employment are now presented. These data indicate the obvious relationship between employment and relief and also indicate that the greater unemployment in villages is the principal reason for the comparatively large relief load there.

Of 2,944 gainful workers in open-country households, nearly 4 percent were unemployed Jan. 1, 1935 (table L). The unemployed included 18 percent of the workers in the village households which was nearly 5 times as high as the proportion unemployed in the open-country (table M). Much of this family unemployment was due to the lack of gainful workers in the family. Gainful workers were more plentiful in open-country households, which averaged 1.6 workers as compared with 1.2 workers per village household. In addition, more than half the village households on relief were without any gainful workers. One-fifth of all unemployed households in the open-country and one-third in the village were unemployed because they had no gainful worker in the household.

CONCLUSIONS

The following conclusions are supported strongly by the facts concerning mobility of rural people living in 18 townships in Iowa.

Significant changes noted in the mobility of rural people during the period, 1928-35, modified but did not reverse general trends previously existing.

Shifts of population from rural areas to other rural or urban areas consist mostly of young people between the ages of 16 and 25 years.

Young people migrate relatively short distances when they leave home; nearly all of them are located in Iowa or adjoining states. Males tend to locate farther from home than females. Females migrate younger than the males, and a larger proportion of females migrates.

Migration of young people was delayed somewhat but did not stop during the depression. Those who left home before 1929 either did not return home, or having returned they had again left home previous to Jan. 1, 1935.

The proportion of children migrating from rural households was not affected by the relief status of the parental household.

Young people who had not attended high school and those who had attended college left home in larger proportion than those who had attended high school.

Stability of residence rather than mobility was characteristic of rural households during this 7-year period. No definite direction of movement appeared from the migration of rural families. Strong tendencies were apparent for rural families to remain in the same locality and to live exclusively either in the country or in the village.

Most rural families who change residence move short distances, the number moving being inversely proportional to the distance moved. Previous places of domicile cluster around the present location of the households.

Farmers are more likely to move to another township than are villagers to move out of the village in which they reside. Such change of residence is apt to be associated with a change in occupational status; this is especially true among farmers.

Farm tenants and farm laborers do most of the moving; a higher proportion of them move and they move more frequently than owners.

Few farmers now on farms in Iowa have received relief. The proportion is higher among tenants, and data stress the insecurity of the farm laborer and of former farm operators living in the village.

Tenure status is the most important single factor associated with mobility of farm households in Iowa. The size of the farm and the age of the farm operator appear to affect mobility only as they are associated with tenure status.

APPENDIX

A COMPARISON OF THE TOWNSHIPS SURVEYED WITH THE STATE

The townships included in the survey have some merit as a sample for the state or for similar areas within the limitations herewith set forth: First and foremost, the limitations imposed by size of sample; second, the limitations introduced by incomplete enumeration of the sample area; third, the limitations introduced by the lack of complete agreement in the items compared and the indefinite relationships of these factors to the data of mobility.

Since the sample included approximately 1 percent of the farm households and a still smaller proportion of the rural population of the state, the sample surveyed comprises too small a proportion of the population to represent adequately the state from a statistical point of view. In the townships surveyed, it is also evident that the proportion of the population which is non-farm population (24 percent) is lower than the proportion (36 percent) of the rural population of the state which is rural non-farm. The townships surveyed contain too small a proportion of non-farming population because villages are not so large or so numerous in the sample townships as they are in the rest of the state.

Therefore, it is not to be expected that the population included in the survey will be representative of the state rural population. The proportion of completion (70 percent) of the townships is the same for both the village and the open-country population. This, in a sense, validates the relation between the population surveyed and the total population of the townships. It does not, however, improve the relationship between the population surveyed and the rural population of the state. No attempt should be made to combine open-country and village results when there are significant differences between them.

When the population surveyed is considered as a part of the state rural population for 1930, it is found to be homogeneous in age distribution for ages 5-15 and 20-35 only. A marked deficiency of young children 0-4 is balanced by a marked excess of persons 35-54 and a slight deficiency of persons over 65 years of age. The deficiency in ages 0-4 is explained partly by the decreasing birthrate between 1930 and the time of the survey and partly by the increasing proportion of older persons between 1930 and 1935 which decreases the crude birthrate still further. The increase in number of persons over 35 years of age is not accounted for entirely by the natural aging of the population but is caused in part by the checking of retirement from farming during the depression and, in part, by the return of former retired farmers to the active farm operation. The deficiency of persons over 55, and especially over 65, is due mostly to the small proportion of village population in the areas surveyed.

The above analysis suggests that important information on retirement from farming might be obtained by analyzing the changes in age composition of the population between one census and the next. The present analysis supports the thesis that the mass movement of persons over 35 years of age out of rural areas did not take place between 1930 and 1935 as rapidly as it had taken place previously. This thesis is supported by a comparison of the age distribution of the popula-

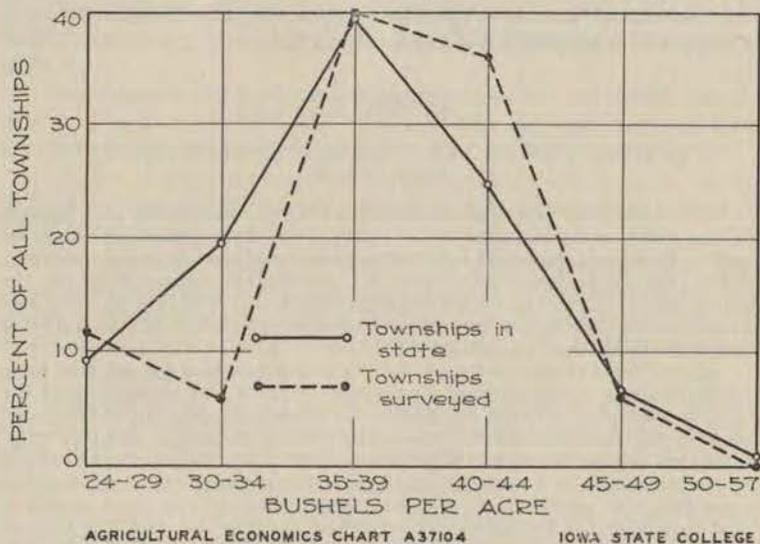


Fig. 13. Average yields of corn.

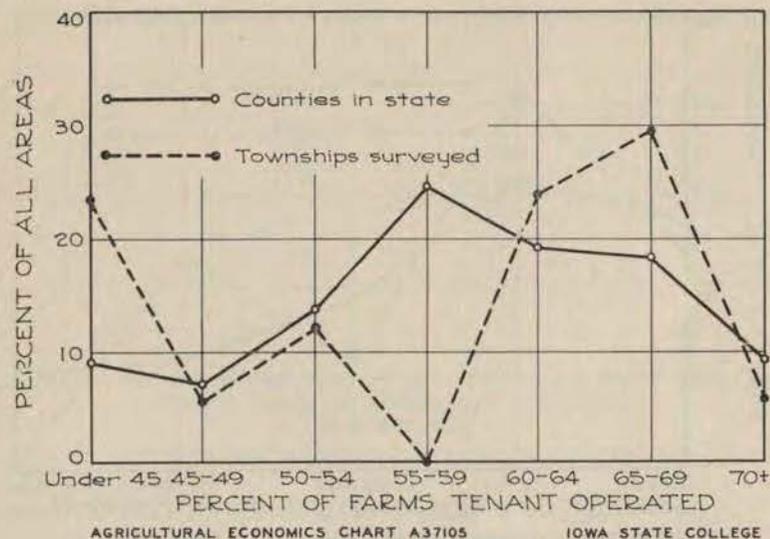


Fig. 14. Percent of all farms operated by tenants.

tion surveyed and the total population of the 18 townships in 1930 (table B.) The lack of differentiation between open-country and village population in the census data by townships obscured much of the movement which is due to the retirement of farm operators to villages in the same township.

Chief interest should now be centered not around population but around certain characteristics of the farms and other factors commonly associated with migration. It is assumed that the lack of a known positive relationship of these characteristics to mobility might not invalidate such analysis and might serve a useful purpose until such relationships have been established. Agricultural data are presented for the 18 townships in the survey.

The townships included in the survey are distributed over the state; one or more of them in each of the major type-of-farming areas (fig. 1). The proportion of townships located in the cash grain area is above average, and representation is lacking in the counties along both the eastern and the western borders of the state.

In yield of corn per acre the distribution of the townships surveyed is not the same as for the state, but the differences tend to balance each other. While the proportion in the modal group is the same as for the state, the proportion above the modal class is considerably above that for the state as a whole, and the proportion in the classes below the mode is somewhat lower than the state (fig. 13).

The tenancy situation in the counties surveyed was slightly above the state average. In 1930, 47.3 percent of all farms were operated by tenants. In the counties in which the townships included in the survey were located, the proportion of tenancy was 48 percent. In 1935, 49.6 percent of the farms in the state and 50.3 percent of the farms in the counties where the survey was conducted were operated by tenants.

In the 17 townships surveyed, tenancy (50.9 percent in 1935) was not significantly higher than for the counties or the state. Some scatter

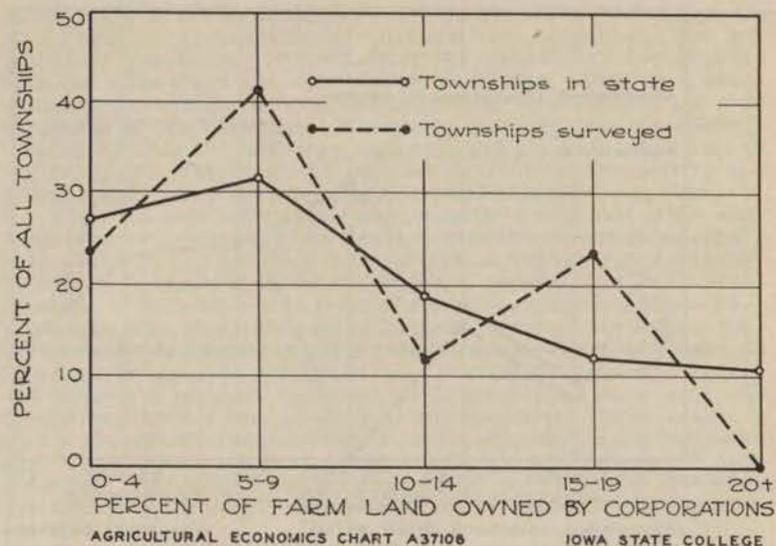


Fig. 15. Percent of farm land that is corporation owned.

was noticeable above and below the mode, but balance was maintained surprisingly well for the state as a whole in spite of the bimodal characteristic (fig. 14).

Corporation ownership of farm land is slightly lower (9.2 percent) for the townships surveyed than for the state (10.1 percent) in 1935. This appears to be due to the fact that none of the townships surveyed had as high as 20 percent of the farm land corporation-owned, while many townships in the state exceeded that figure (fig. 15).

Certain other data are available on a township basis in the United States census for 1930. On these bases, the percentage of all townships in the state included in the survey is 1.04; of all farms, 1.05 percent; of the rural farm population, 1.11 percent; of the value of land and buildings, 1.11 percent; of the acreage of land in farms, 1.11 percent. While the townships surveyed were slightly above average size the land was slightly below average in value per acre; \$124 for the state and \$118 for the townships surveyed.

TABLE A. BIRTHS AND DEATHS PER 1,000 PERSONS IN IOWA, 1929-1935.*

Year	Crude rates	
	Births	Deaths
1929	17.1	10.4
1930	17.3	10.6
1931	16.8	10.4
1932	16.2	10.4
1933	15.9	10.3
1934	17.1	10.8
1935	16.5	10.6

*Data from the Division of Vital Statistics, State Department of Health, Des Moines, Iowa.

TABLE B. POPULATION OF THE 18 TOWNSHIPS INCLUDED IN THE SURVEY, 1930*

Age	Number	Age	Number
0-4	1,303	35-44	1,773
5-14	2,699	45-64	2,342
15-24	2,172	65	912
25-34	1,891	All ages	13,092

*Data from U. S. census, 1930.

TABLE C. SCHOOLING OBTAINED BY ALL CHILDREN OVER 16 YEARS OF AGE OF HEADS OF HOUSEHOLDS SURVEYED, BY RESIDENCE.

Last year of school completed	Open-country		Village	
	Number	Percent	Number	Percent
Under 8	110	4.3	32	4.5
8	1,046	40.5	165	23.1
9	177	6.8	43	6.0
10	203	7.9	87	12.2
11	167	6.5	63	8.8
12	678	26.2	201	28.2
13	49	1.9	25	3.5
14	87	3.4	39	5.5
15	15	—	21	3.0
16	47	1.8	37	5.2
Unknown	3	—	0	0
Total	2,582	100.0	713	100.0

TABLE D. CHILDREN OF HEADS OF VILLAGE AND OPEN-COUNTRY HOUSEHOLDS, AWAY FROM HOME JANUARY 1, 1935, BY SEX, BY TIME OF LEAVING HOME AND BY AGE AT LEAVING HOME.

Time of leaving home by sex	Total	Age at leaving home					35 plus, unknown
		Under 16	16-17	18-20	21-24	25-34	
Total	1,830	26	132	623	705	323	21
Male	852	11	26	202	387	213	13
Female	978	15	106	421	318	110	8
Left home before 1929							
Total	1,250	17	87	436	481	220	9
Male	584	7	17	135	274	146	5
Female	666	10	70	301	207	74	4
Left home 1929-35							
Total	580	9	45	187	224	103	12
Male	268	4	9	87	113	67	8
Female	312	5	36	120	111	36	4

TABLE E. CHILDREN OF HEADS OF OPEN-COUNTRY AND VILLAGE HOUSEHOLDS WHO HAVE LEFT HOME, BY PRESENT AGE, SEX AND AGE AT LEAVING.

Sex and age	Total	Age at leaving home						
		Under 16	16-17	18-20	21-24	25-34	35 and over	Unknown
Males-total	852	11	26	202	387	213	8	5
16-17	3	2	1					
18-20	21	3	4	14				
21-24	105	2	6	51	44			2
25-34	380	4	13	87	191	84		1
35-44	256		1	40	107	102	5	1
45-54	79		1	8	42	24	3	1
55 and over	8			2	3	3		
Females-total	978	15	106	421	318	110	5	3
16-17	5	3	2					
18-20	50	4	18	27	1			
21-24	173	3	26	89	53			2
25-34	434	5	38	173	153	64		1
35-44	252		18	109	86	34	5	
45-54	55		4	21	21	9		
55 and over	9			2	4	3		

TABLE F. ALL MALE HEADS OF HOUSEHOLDS CONTINUOUSLY ENGAGED IN AGRICULTURE 1928-1935, BY PRESENT AGE AND TENURE STATUS, 1928-1935.

Age	All heads	Tenure status			Unclassified*	No family established
		Owner-operators	Tenants	Laborers		
All ages	1,808	747	678	64	232	87
Under 25	42	0	0	0	37	5
25-34	329	24	124	12	147	22
35-44	498	154	268	22	37	17
45-54	442	226	178	13	6	19
55-64	296	192	74	9	4	17
65+	201	151	34	8	1	7

*Heads who established a family since Jan. 1, 1928.

TABLE G. ALL MALE HEADS OF HOUSEHOLDS CONTINUOUSLY ENGAGED IN AGRICULTURE, BY TENURE STATUS JANUARY 1, 1935, AND BY HIGHEST TENURE STATUS REACHED, 1928-1935.

Tenure status Jan. 1, 1935	All heads		Highest tenure status reached, 1928-1935.				
	Number	Percent	Owner or manager	Tenant or cropper	Farm laborer	Unclassified*	No family established†
All heads	1,809	100.0	49.4	45.5	5.1	—	—
Owner or manager	822	45.4	41.3	0.0	0.0	2.0	2.1
Tenant or cropper	870	48.1	3.6	33.9	0.0	8.3	2.3
Farm laborer	117	6.5	0.3	0.8	2.5	2.5	0.4
Unclassified*	—	—	2.0	8.6	2.3	12.9	—
No family established†	—	—	2.2	2.2	0.3	—	4.8

*233 families established during the 7-year period, 1928-1935.

†87 heads of households with no family established at time of survey.

TABLE H. TENURE STATUS OF ALL MALE HEADS OF HOUSEHOLDS ENGAGED IN AGRICULTURE JAN. 1, 1935, WHO ESTABLISHED A FAMILY PRIOR TO 1928, BY OCCUPATIONAL HISTORY, 1928-1935.

Tenure status, Jan. 1, 1935	Occupational history of heads			
	All heads		Agriculture only	Agriculture and any other
	Number	Percent		
Total	1,484	100	93.1	6.9
Owner or manager	744	100	95.4	4.6
Tenant or cropper	678	100	91.7	8.3
Farm laborer	62	100	80.6	19.4

TABLE I. RELIEF HISTORY OF ALL HEADS OF OPEN-COUNTRY HOUSEHOLDS, BY RESIDENCE.

Relief history, 1933-1934	Place of residence Jan. 1, 1935			
	Open-country		Village	
	Number	Percent	Number	Percent
All heads	1,944	100	507	100
No relief	1,865	95.9	439	86.2
Received relief: Total	71	3.7	61	12.0
1933 only	3	.2	5	1.0
1934 only	50	2.6	25	4.9
1933 and 1934	18	.9	31	6.1
Not ascertainable	8	.4	7	1.8

TABLE J. PERSONS 65 YEARS OF AGE OR OLDER, BY SEX AND BY RELATIONSHIP TO THE HEAD OF THE HOUSEHOLD.

County	All persons 65 or over			Head of household		Relationship to head				
	Total	Male	Female	Male	Female	Female spouse	Parent		All other	
							Male	Female	Male	Female
All counties	614	356	258	276	50	103	63	91	16	15
Allamakee	123	70	53	50	6	20	14	21	6	6
Appanoose	61	35	26	33	2	19	2	5		
Buena Vista	90	43	47	38	20	14	2	9	3	4
Calhoun	10	7	3	6	2	1	1	1		
Cass	39	20	19	16	7	5	4	7		
Clay	18	13	5	13		5				
Humboldt	16	9	7	2	1	1	7	5		
Iowa	25	17	8	13	1	3	2	4	2	
Keokuk	12	8	4	6	0	3	1	1	1	
Madison	30	20	10	16		5	2	5	2	
Marshall	31	19	12	16	1	6	3	5		
Poweshiek	45	31	14	28	1	10	2	2	1	1
Story	38	17	21	15	7	7	2	5		2
Webster	26	18	8	13	1	2	5	5		
Wright	50	29	21	11	1	3	16	16	1	2

TABLE K. RELIEF HISTORY OF ALL PERSONS 16 YEARS OLD AND OVER, LIVING IN THE HOUSEHOLDS SURVEYED, BY RESIDENCE.

Relief history, 1933-1934	Residence Jan. 1, 1935			
	Open-country		Village	
	Number	Percent	Number	Percent
All persons	5,201	100	1,179	100
Received no relief	5,006	96.3	1,008	85.5
Relief 1933 only	7	0.1	6	0.5
Relief 1934 only	120	2.3	65	5.5
Relief 1933 and 1934	49	0.9	83	7.0
Not ascertainable	19	0.4	17	1.5

TABLE L. OPEN-COUNTRY HOUSEHOLDS WITH SPECIFIED NUMBER OF WORKERS AND THE NUMBER GAINFULLY EMPLOYED, JANUARY 1, 1935.

Number of gainful workers in household	Total households	Number of gainful workers employed Jan. 1, 1935					
		None	1	2	3	4	5+
Total households	1,880	19	1,174	468	164	45	10
No gainful workers	4	4					
1 gainful worker	1,129	14	1,115				
2 gainful workers	500	1	58	441			
3 gainful workers	184		1	26	157	45	
4 gainful workers	53			1	7		
5 or more	10						10

TABLE M. VILLAGE HOUSEHOLDS WITH SPECIFIED NUMBER OF WORKERS AND THE NUMBER GAINFULLY EMPLOYED JANUARY 1, 1935.

Number of gainful workers in household	Total households	Number of gainful workers employed Jan. 1, 1935					
		None	1	2	3	4	5+
Total households	504	109	320	53	15	5	2
No gainful workers	35	35					
1 gainful worker	363	66	297				
2 gainful workers	76	7	21	48			
3 gainful workers	23	1	2	5	15		
4 gainful workers	5					5	
5 or more	2						2

TABLE N. RELIEF CASES IN IOWA, WITH FARMING AS THEIR USUAL OCCUPATION, WHICH RECEIVED RELIEF IN MARCH, 1935.*

Farming status	Relief cases	
	Number	Percent
Total	16,501	100
Farm laborers	10,954	66.4
Farm operators	5,547	33.6
Owners farming	298	1.8
Tenants farming	1,286	7.8
Farmer operators not farming	3,963	24.0
Unemployment relief cases	64,895	—
All farms in Iowa, 1935	221,986	—

*Data from Works Progress Administration.

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