METHODS BY WHICH ONE HUNDRED TWENTY MEN OF BAZINE AND HIGHPOINT TOWNSHIPS OF NESS COUNTY, KANSAS BECAME ESTABLISHED IN FARMING

by

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INTRODUCTION

The secondary schools of our nation have been charged with the responsibility of placing their students in jobs in the adult world. The report of a Special Committee on Secondary School Curriculum (1940) states, "The schools ought to be prepared to describe in perfectly explicit terms what a young man is capable of doing and ought to stand by him with advice and assistance until he finds a place in the adult world". If the secondary schools accept this obligation some methods of accomplishing these objectives should be learned, for upon their teachers would fall these new responsibilities. To the teacher of vocational agriculture would come the responsibility of guiding and placing young men in farming. This responsibility has been expressed more completely by Lathrop (1939), when he stated "The course in vocational agriculture does not or should not end when students leave school. Unless young men are assisted in establishment in farming, vocational agriculture must be judged ineffective".

If vocational agriculture accepts the responsibilities set forth in the above quotation, information on methods by which men have become established in farming is needed by teachers of vocational agriculture in their placement problems and by persons in charge of guidance in the secondary schools of our nation. The purpose of this study was to supply some information needed in these placement and guidance problems. Information about the following was considered to be pertinent; the methods by which farmers secured the capital to start farming, the amount of capital used to start farming, the age at time of establishment, the degree of education of the farmers and their parents, the number of farmers who were owners and tenants, the number

of farmers' fathers who were owners, tenants and homesteaders, and the changes from decade to decade in the frequency with which certain methods have been used.

The reader should not assume that this is a study of all the methods men have attempted to use in becoming established in farming. Instead, it is an investigation of the methods used by those who are established in farming. Since these men have remained established, their methods should be of more benefit to instructors of vocational agriculture. Therefore, the subjects studied were 120 men who at the time of interview were established farmers.

REVIEW OF LITERATURE

In the limited amount of research that has been done on this problem, the study most like the present one was made by Clark (1940). He investigated the methods by which 40 young men in the Olney, Illinois community became established in farming. In his study he found that farm owners' boys became farmers more often than did tenants' sons. He found that the number of brothers in a family did not influence unfavorably their becoming established in farming, that half of the young men had had training in vocational agriculture in high school, that the majority were established between the ages of 19 and 24, that former vocational agriculture students owned larger farms, that only a small capital was used to start farming, and that there was a great variation in factors helping young men to become established in farming. However, this investigator failed to consider the source of the capital used to become established in farming. Since he did not study men over 40 years of age, he loaded his sample in favor of vocational agriculture, for vocational agriculture was not offered in our

secondary schools to many men who are now 40 years old. Clark's opinion was also biased because he failed to consider other agencies which direct boys into farming, such as 4-H clubs and the Federal Farm Security Administration.

The literature studied was of considerable help in completing a list of methods by which men might secure capital to become farmers. Unpaid laborer on father's farm, hired hand, tenant, and owner are the steps in becoming established in farming reported by App and Waller (1938). Spillman (1918) made a study of the way men acquired farms and found that 20 per cent of the cases studied followed all four stages indicated by App and Waller, that 13 per cent skipped the tenant stage, that two-thirds of all cases studied purchased their farms, and that the remaining one-third acquired their farms from their fathers or near relatives. However, he did not study the method by which they first became farm operators or secured their first capital to use in establishing themselves in farming. Martin made a study of out-of-school young men in Vermont. Although he did not contribute to the list of methods used by farmers to become established in farming, he and Wayman (1939) gave some useful information on conditions under which men were farming or using land, such as types of leases, partnerships, agreements or deeds. The conditions under which men are farming is frequently referred to in the Agricultural Education Magazine as "farming status".

The purpose of the present study was to show the ways by which the men secured their first capital to start farming, the amount of capital used to start farming, the age at which the men started farming, the education of the farmers and their parents, the proportion of farmers who are owners and renters, the proportion of farmers' fathers who were renters, owners, and

homesteaders, and any changes or trends that had occurred during the period of years in which the men studied had become established in farming. It was desired also to secure new information to add to that available for the solution of the problem of establishing students of vocational agriculture in farming.

PROCEDURE

When methods of securing the data needed for this study were considered, the use of a questionnaire was eliminated because of the small number of questionnaires usually returned, faulty interpretation of questions, and the indifference of some in answering the questions asked. The small area in which data were to be gathered and the wide acquaintance with the farmers of this community made the controlled personal interview desirable, hence this method of securing these data was used.

The region studied is composed of Bazine and Highpoint Townships, an area 12 miles wide and 20 miles long, in the southeast corner of Ness County, Kansas. Figure 1 is a map of Ness County with Bazine and Highpoint Townships bordered in red. According to the Ness County farm bureau, there were in December, 1940, 360 resident farm operators in these two townships. It would have been desirable to have interviewed all of the farmers, but since the time required for that many interviews was greater than could have been spent in this study, a sampling was used. It was believed that every third farmer living along the roads would be a fair sampling of the farmers working the different kinds of terrain within the townships, so this selection of cases was used, and 120 farmers were interviewed. A farmer was considered established in farming when he had separate enterprises and accounts from

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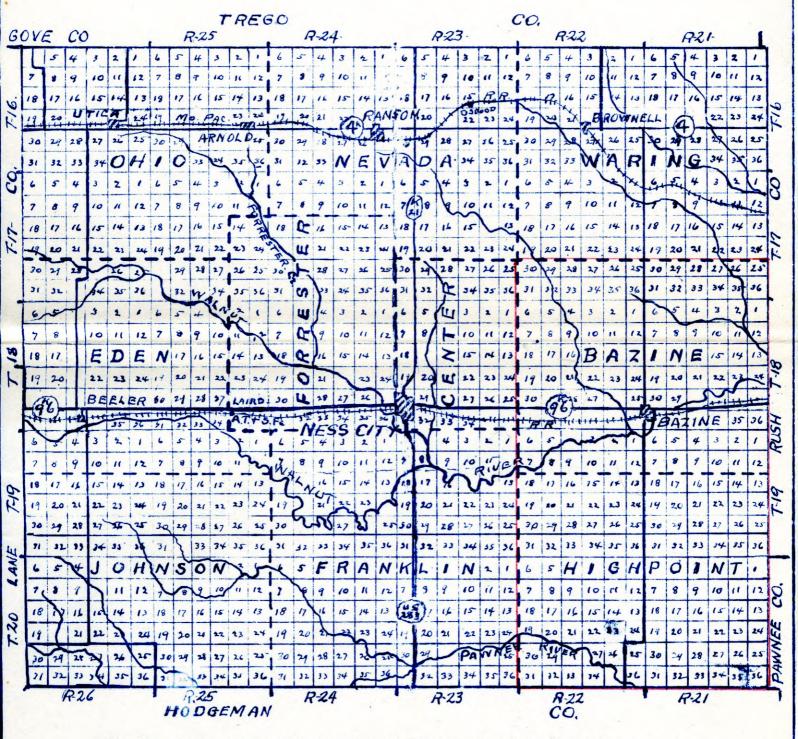


Fig. 1. A map of Ness County with Bazine and Highpoint Townships bordered in red.

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those of his father, or when, in the case of partnerships, his enterprises and accounts had a definite plan for division.

Many of the farmers of these townships are people of German descent, who migrated from Germany to Russia and later to the United States. A majority of them are of Protestant faith, although there are a few German-Russian Catholic families. In the southern part of Highpoint Township and in the northeastern part of Bazine Township, there remain a few farmers descended from early Irish settlements. Most of the farmers appear to be ambitious, hard working people who enjoy farm life and prefer it to any other.

In such a study as this, it is desirable for the reader to have some information about the kind of farming practiced in the townships studied. The soils of these townships are primarily summit silt loam and silty clay loam, interspersed with some Benton stony loam. Soils of the Lincoln series are located along the stream beds. The topography varies from rolling to rough broken land. These soils and the topography make this area adapted to wheat farming and to the raising of cattle, swine and poultry. Most of the farmers milk a number of cows and the sale of cream provides one of the major incomes of the community.

The interviews for securing the data were given willingly with one exception, and often lasted an hour or more as the farmers reminisced about the methods they used to secure money to start farming. The data sheet used to record these data may be found in the appendix.

After all of the interviews had been made, the data were tabulated and all tabulations checked to lessen the possibility of error. The percentage of frequency of use of each of the various methods of becoming established in farming was compared for the 60 year period. This was done by means of significance ratios of differences in percentages. The interpretation of

these ratios was accurately made by a determination of the number of chances in 100 that the true difference was greater than zero (Garrett, 1937). Comparisons were made in the same manner for methods used within certain decades and of the changes in the frequency of use of certain methods from decade to decade.

The means, the medians, the standard errors of the means and the standard errors of the medians were calculated for the age of the farmer at time of interview, for his age at the time of establishment in farming, for the number of grades in school completed by the farmer and his parents, and for the capital he used to establish himself in farming. Most of these results were then recorded in tabular form.

The percentages of the farmers who were owners and tenants at the time of the interview were obtained and were tabulated for the entire period which covered 60 years or six decades. The same table includes comparisons of those who were established in certain decades who are now owners and who are now renters. The comparisons were made by means of the significance ratio of the difference of the percentages.

RESULTS AND DISCUSSION

Methods Used to Become Established in Farming

An analysis of the methods by which farmers of Bazine and Highpoint
Townships became established in farming for the entire period, 1881 to 1940,
and for each one of the six decades is given in Table 1. The decades 18811890 and 1891-1900 are of little statistical value for the number of cases
in each is too small. The remainder of the table must be considered a key
table giving a percentage analysis of methods by which farmers were established in the different decades and for the entire period studied. However,
significance ratios provide a more complete method of comparison. Therefore
tables of comparisons using significance ratios were made for certain of
the methods within the period 1881-1940 and for each of the decades after
1901. The methods used for these comparisons were selected from those most
used, and in addition some methods were compared which were thought of as
being important but which did not prove to be so.

At this point there is a need of an explanation of the use of the significance ratios. These ratios are valuable because they make it possible to state whether the difference is or is not due to chance in the selection of cases. In order to obtain significance ratios, the standard error of the difference of percentages is calculated. This error is a function of the standard errors of the percentages. When the standard error of difference is divided into the difference between percentages, the result is the significance ratio (Lindquist, 1938). If the significance ratio is 3.0 or more, the chances are 99.9 in 100 that the difference is not due to the

chances of sampling, but that the difference is real. In this kind of data a ratio of 3.0 is regarded as establishing beyond question that a real difference exists. Yet some of the comparisons yield significance ratios somewhat less than 3.0. Although they do not indicate with certainty that there is a true difference, the number of chances in 100 that there is a true difference is very high. Such high probabilities of a real difference should in some cases be considered. Therefore the Tables, 2 to 11, include not only the significance ratios but also the chances in 100 that the difference is a true difference greater than zero. In all tables the significance ratios and the number of chances in 100 that there is a true difference are arranged from the greater to the lesser.

In Table 2 covering the period from 1881 to 1940, the following true differences are shown: farmers were more often established as tenants with financial help of father than as owners with financial help from father; farmers were more often established as tenants with financial help from father than as tenants of father's farm. A comparison of other methods shows two instances in which there were 99 chances in 100 that there is a true difference greater than zero, therefore one could state with a reasonable degree of certainty that a true difference exists. One of these comparisons shows that tenants were established more often by financial institutions or persons other than relatives than they were by all relatives except father, and the other, that the use of earnings from enterprises conducted on father's farm was a more important method of becoming a tenant than using earnings from being a farm laborer. It can also be noted in a study of this table that there is not a true difference between the methods, "tenant with financial help of father", and "used earnings from enterprises conducted on father's farm". Both can be considered as being important

Table 1. Methods by which farmers of Bazine and Highpoint Townships became established in farming analyzed by decades.

	Per cent						
	in						
	1881-	1891-	1901-	1911-	1921-	1931-	1881-
Method	1890	1900	1910	1920	1930	1940	1940
From farm laborer to tenant	50.0	42.9	45.5	21.8	8.3	4.3	17.6
Tenant with financial help from father			9.1	14.5	18.7	34.0	18.8
Owner with financial help from father		***		1.8	4.2		1.7
Partner with father				1.8			•6
Tenant of father's farm			110 100	3.6	4.2	4.3	3.3
Inherited father's farm			4.5	5.5		2.1	2.8
From miscellaneous laborer to owner	ad 100	44	-	3.7			1.1
From miscellaneous laborer to tenant	25.0	14.2	9.1	7.3	2.1	8.5	7.1
Farm security client				***		2.1	•5
Jsed earnings from high school farming program in vocational agriculture		•	****		4.2	14.9	4.4
Jsed earnings from enterprises conducted on father's farm		42.9	18.2	23.7	45.8	12.8	27.1
Genant with financial help of father- in-law			4.5	1.8	2.1	4.3	2.8
enant with financial help of other relatives				1.8		2.1	1.1
Tenant with financial help other than							
relatives			9.1	12.7	10.4	10.6	10.5
Homesteaded original farm	25.0		***	-		-	•6
Cotal per cent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of methods*	4	7	22	55	48	47	181

^{*}Some farmers used more than one method to become established.

Table 2. Significance ratios of the difference in some of the methods by which farmers of Bazine and Highpoint Townships became established in farming during the period 1881-1940.

Method	Per cent	Method	Per cent	Significance ratio	Chances in 100 that true difference is greater than zero
Tenant with financial		Owner with financial			
help from father Tenant with financial	18.8	help from father Tenant of father's	1.7	5.14	99.9
help from father Tenant with financial help from father-in-	18.8	farm Tenant with financial help other than	3.3	4.75	99.0
law and other relatives Farm laborer to	3.9	relatives Used earnings from	10.5	2.53	99•0
tenant	17.6	enterprises father's farm	27.1	2.26	99.0
Tenant with financial		Used earnings from enter-			
help from father	18.8	prises father's farm	27.1	1.86	96.0

Table 3. Significance ratios of the difference in some of the methods by which farmers of Bazine and Highpoint Townships became established in farming during the decade 1901-1910.

Method	Per cent	Method	Per cent	Significance ratio	Chances in 100 that true difference is greater than zero
From farm laborer		Tenant with financial			
to tenant	45.5	help from father	9.1	3.00	99.9
Tenant with financial		Used earnings from enter-			
help from father	9.1	prises on father's farm	18.2	2.03	98.0
Tenant with financial		Inherited father's			
help from father	9.1	farm	4.5	•61	73. 0
Tenant with financial		Tenant with financial			
help of father-in-law		help other than			
or other relatives	4.5	relatives	9.1	.61	7 3.0

methods because the percentages established by these methods are the largest found.

As is indicated above "enterprises conducted on father's farm" has been one of the two most effective methods of establishing men in farming during the period, 1901 to 1940. The farming program as used in vocational agriculture follows this method of placement. Since the other important method, "tenancy with financial help from father" is not available to vocational agriculture, it is apparent that vocational agriculture is using a best available method of establishing young men in farming.

Table 3 was made to compare methods within the decade 1901 to 1910.

A statistically sound difference was established in one instance, showing that the method "from farm laborer to tenant", was more important them "tenant with financial help from father". Another comparison made was "used earnings from enterprises conducted on father's farm" with "tenant with financial help from father". In this comparison there would be a true difference in favor of the former in 98 instances in 100; consequently one can feel almost certain that the use of earnings from enterprises conducted on father's farm was the more important. However there was no true difference revealed between the methods, "tenant with financial help of father-in-law and other relatives" and "tenant with financial help other than relatives", nor was there evidence of a reliable difference between the methods, "tenant with financial help other than relatives", nor was there evidence of a reliable difference between the methods, "tenant with financial help other than relatives", nor was there evidence of a reliable difference between the methods, "tenant with financial help from father" and "inherited father's farm".

In the decade 1911-1920, data for which are included in Table 4, there were no differences that were statistically significant, although in the comparison, "tenant with financial help from father" and "tenant of father's farm", the significance approached certainty that "tenant with financial help from father" is more important.

Table 4. Significance ratios of the difference in some of the methods by which farmers of Bazine and Highpoint Townships became established in farming during the decade 1911-1920.

Method	Per cent	Method	Per cent	Significance ratio	Chances in 100 that true difference is greater than zero
Tenant with financial					
help from father	14.5	Tenant of father's farm	3.6	2.03	98.0
Tenant with financial		Tenant with financial			
help from father-in-law		help other than			
or other relatives	3.6	relatives	12.7	1.76	96 . 0
From farm laborer to		Tenant with financial	-		
tenant	21.8	help from father	14.5	•95	83.0
Tenant with financial		Used earnings from enter-		• • •	
help from father	14.5	prises on father's farm	23.6	.22	58.0

Table 5. Significance ratios of the difference in some of the methods by which farmers of Bazine and Highpoint Townships became established in farming during the decade 1921-1930.

Method	Per cent	Method	Per cent	Significance ratio	Chances in 100 that true difference is greater than zero
Tenant with financial help from father		Used earnings from farm- ing program in vocationa agriculture and enter-	1		
Tenant with financial	18.7	prises on father's farm	50.0	3.52	99•9
help from father Tenant with financial help of father-in-law	18.7	Tenant of father's farm Tenant with financial help other than	4.1	2.48	99•2
or other relatives From farm laborer to	2.1	relatives Tenant with financial	10.4	1.98	97.0
tenant	8.3	help from father	18.7	1.58	93.0

The decade 1921-30, covered by Table 5, was a period of good crops and good economic conditions. This probably was responsible for the increase in the number of farmers established by the method, "used earnings from enterprises conducted on father's farm". Since vocational agriculture was established in this community in 1926 and hence was not taught during the entire period, no comparisons were made using the method, "used earnings from farming program in vocational agriculture", alone, but this method was combined with "used earnings from enterprises conducted on father's farm" for the purpose of comparisons. This combination is defensible because these methods have a great deal in common, since they would be the same except for instruction and help of the teacher in the farming program in vocational agriculture. The only true difference in this decade showed that the "earnings from the farming program in vocational agriculture and from other enterprises conducted on father's farm" is a more important method than "tenant with financial help from father". There is a difference which is statistically almost significant between the methods, "tenant with financial help from father" and "tenant of father's farm". This would indicate that during this decade more men started as tenants of other farms than of father's farm. No true differences could be established between the methods, "tenant with financial help from father-in-law or other relatives" and "tenant with financial help other than relatives" and between the methods, "from laborer to tenant" and "tenant with financial help from father".

During the decade 1931-1940 to which Table 6 is devoted, more comparisons of methods and combinations of methods were possible, because vocational agriculture was taught for the entire period. Two true differences were found; "tenant with financial help from father" was a more important method than either of the methods, "from farm laborer to tenant" or "tenant of

Table 6. Significance ratios of the difference in some of the methods by which farmers of Bazine and Highpoint Townships became established in farming during the decade 1931-1940.

Method Po	er cent	Method	Per cent	Significance ratio	Chances in 100 that true difference is greater than zero
From farm laborer to		Tenant with financial			
tenant	4.3	help from father	34.0	3.96	99.9
Tenant with financial		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
help from father	34.0	Tenant of father's farm	4.3	3.96	99.9
Tenant with financial		Used earnings from farm- ing program in voca-			
help from father	34.0	tional agriculture	14.9	2.30	98.9
From farm laborer to tenant	01.0	Used earnings from farm- ing program in voca-	7440	2.00	30.0
	4.3	tional agriculture	14.9	1.78	96.0
Tenant with financial help of father-in-law		Tenant with financial help other than			
or other relatives	6.4	relatives	10.6	•75	77.0
Used earnings from enter- prises father's farm and					
from farming program in		Tenant with financial			
vocational agriculture Used earnings from farming program in vocational	27 .7	help from father Used earnings from enter- prises father's farm	34.0	. 66	74. 0
agriculture	14.9	b- race receive p ratin	12.8	•30	60.0

father's farm". In the comparison of "tenant with financial help from father" and "used earnings from farming program in vocational agriculture", there would be a true difference greater than zero in 98.9 instances in 100. This indicates that there was a fair degree of certainty that "tenant with financial help from father" was more important. The amount of help from father during this decade was large for crops were very poor and there was a major depression in this period. All other methods showed differences that were statistically not valid. Furthermore, farmers were established as tenants with financial help other than relatives as often as by help from father-in-law or other relatives. The data also indicate that combined earnings from farming program in vocational agriculture and other enterprises conducted on father's farm were as important as the method, "tenant with financial help from father". Likewise no difference was found between the methods, "used earnings from farming program in vocational agriculture" and "used earnings from enterprises conducted on father's farm".

In each of Tables 7 to 11 inclusive, comparisons were made of a certain method in different decades to determine changes or trends from one decade to another. Significance ratios followed by chances in 100 that the true difference was greater than zero were tabulated from greater to lesser, as in the previous tables. The two decades, 1881-1890 and 1891-1900, have been omitted from the comparisons because of the small number of cases studied.

Table 7. Significance ratios of difference in the method, from farm laborer to tenant, in different decades.

Decade	Per cent	Decade	Per cent	Signif- icance ratio	Chances in 100 that true difference is greater than zero
1901-1910	45.5	1931-1940	4.3	3.78	99.9
1901-1910	45.5	1911-1920	21.8	1.95	97.0
1911-1920	21.8	1921-1930	8.3	1.75	96.0
1921-1930	8.3	1931-1940	4.3	.82	79.0

In Table 7, the method, "from farm laborer to tenant", is compared for the different decades. This table shows that from the decade 1901-1910 to the decade 1931-1940 there was a definite reduction in the use of this method, but that the changes have not been significant from any one decade to the next.

Table 8. Significance ratios of difference in the method, tenant with financial help from father, in different decades.

Decade	Per cent	Decade	Per cent	Signif- icance ratio	Chances in 100 that true difference is greater than zero
1901-1910	9.1	1931-1940	34.0	2.69	99.5
1921-1930	18.7	1931-1940	34.0	1.87	96.0
1901-1910	9.1	1911-1920	14.5	•66	74.0
1911-1920	14.5	1921-1930	18.7	•59	72.0

"Tenant with financial help from father" was compared one decade with another in Table 8. No definite trend was evident, but there was a steady increase in this method from one decade to the other. If the number of cases had been larger, there might have been a true difference evident.

Table 9. Significance ratios of difference in the method, from miscellaneous laborer to tenant, in different decades.

Decade	Per cent	Decade	Per cent	Signif- icance ratio	Chances in 100 that true difference is greater than zero
1921-1930	2.1	1931-1940	8.5	1.41	92.0
1911-1920	7.3	1921-1930	2.1	1.27	89.0
1901-1910	9.1	1931-1940	8.5	1.04	84.0
1901-1910	9.1	1911-1920	7.3	•40	65.0

In the study of the method, "from miscellaneous laborer to tenant" as given in Table 9, no differences or trends of statistical significance were noted from one decade to another. The low percentages established in this manner indicate that at no time in the 40 years has this method been very important to farmers who remained on the farm.

Table 10. Significance ratios of difference in the method, used earnings from enterprises on father's farm, in different decades.

Decade	Per cent	Decade	Per cent	Signif- icance ratio	Chances in 100 that true difference is greater than zero
1921-1930	45.8	1931-1940	12.8	4.10	99.9
1901-1910	18.2	1931-1940	12.8	2.65	99.5
1911-1920	23.6	1921-1930	45.8	2.57	99.4
1901-1910	18.2	1911-1920	23.6	.54	71.0

"Used earnings from enterprises conducted on father's farm" was compared for the different decades in Table 10. Statistical evidence of change can be noted from the decade 1921-1930 to the decade 1931-1940, at which time there was a definite drop in the importance of this method. This reduction can be explained by two factors. The decade 1931-1940 was a period of crop failures in which crops were not grown and livestock numbers on the

home farm had to be reduced. This meant that there were very few savings during this period to be used in establishing young men in farming. This decade also represented a depression period while the decade preceding was a period of financial prosperity. Until the last decade, 1931-1940, this method showed a steady growth until it reached a peak of 45.8 per cent of those established in farming during the decade, 1921-1930. It should be gratifying to those interested in vocational agriculture that this method has been useful during the period, 1901 to 1940. The farming program in vocational agriculture should expand and improve the use of a method which has been employed so successfully throughout the last 40 years.

The interviews with a father and a son who used earnings from enterprises conducted on father's farm to become established in farming offer a good example of the use of this method. The son told how when he was 13 years of age, his father gave him a heifer calf with the stipulation that the calf and all of its offspring were to remain his without feed charges unless he attempted to sell the cattle and spend the money. If at any time this were attempted, the cattle were to become father's. He allowed these cattle to increase until he was 19 years old. At that time a neighbor offered him the use of 160 acres of prepared wheat ground with seed furnished for one-half of the crop, if his father would furnish the horses for drilling. The father agreed. When the boy's wheat was harvested, it netted him \$1300. He made a down payment on a half section of land with part of this money and used the remainder and his accumulation of livestock to establish himself in farming. During this interview, this farmer remarked, "I plan to establish my son in farming in the same way". Later when this farmer's father was interviewed, he told how a heifer calf, given him when he was 13

years of age, had established him in farming, and how he had established not only the son interviewed but also another son in a similar manner.

Table 11. Significance ratios of difference in the method, tenant with financial help other than relatives in different decades.

Decade	Per cent	Decade	Per cent	Signif- icance ratio	Chances in 100 that true difference is greater than zero
1901-1910	9.1	1911-1920	12.7	•47	67.0
1911-1920	12.7	1921-1930	10.4	•36	64.0
1901-1910	9.1	1931-1940	10.6	.21	55.O
1921-1930	10.4	1931-1940	10.6	.03	50.0

Table 11, comparing the method, "tenant with financial help other than relatives", does not have large enough significance ratios for statistical significance, so no change of any kind was evident. The constancy of the percentages established by this method is surprising.

The results of the study of capital used by this group of farmers to become established in farming is shown in Table 12. There are not enough cases in the decades 1881-1890 and 1891-1900 to obtain small standard errors, so it was impossible to make accurate determinations for these decades. During the entire period the mean of the capital used to become established in farming was small, being \$770.00 ± \$108.06. The decade 1921-1930 had the highest mean capital, \$977.25 ± \$224.19. Since this was a period of good crops and high prices, this larger mean might indicate that more capital was used in times of prosperity, but the differences could not be considered statistically significant, because of the large standard errors of the means. The low mean capital could be misleading because of the large amount of machinery that a wheat farmer needs. Elsewhere it has been pointed out that 98 per cent of the farmers studied were the sons of

farmers, and were without a doubt sharing the use of some of father's equipment until funds were available for the purchase of their own.

Table 12. Statistical analysis of the capital used by the farmers to become established in farming.

		Standard		Standard	Number	
		error of		error of	of	
Period	Mean	mean	Median	median	cases	
1881-1890	\$250.00	\$288.56	\$250.00	\$350.70	3	
1891-1900	250.00	250.00	250.00	312.50	4	
1901-1910	444.50	96.15	346.00	120.19	18	
1911-1920	871.50	252.32	360.00	315.40	38	
1921-1930	977.25	224.19	485.00	275.00	33	
1931-1940	750.00	180.00	390.00	225.00	25	
1881-1940	770'•00	108.06	385.50	135.75	120	

Present Age and Age of Farmers at Establishment

The mean and the median of the ages of the farmers at the time of the interview and the mean and the median of their ages at the time of establishment are given in Table 13. It is interesting to note that the mean age of the group studied was 43.4 ± 1.14 years. Their mean age at time of establishment was $22.3 \pm .415$ whereas the median age was $20.4 \pm .518$. The fact that the median was smaller than the mean indicates that there were larger frequencies in the lower age groups. This finding agrees with the work of Clark (1940), for he, too, found that farmers were established at an early age.

Table 13. Means and medians of the ages of farmers at the time of the interview their ages at time of establishment in farming.

	Mean	Standard error of mean	Median	Standard error of median	Number of cases
	moan	IIIS CLII	Moutan	median	Cases
Age at time of					
interview	43.4	1.140	43.8	1.425	120
Age at establish-					
ment	22.3	.415	20.4	.518	120

Education of Farmers and Their Parents

The education of the farmers and their parents expressed in grades completed in school is found in Table 14 which table indicates that the sons had more education than the parents and that the mothers had slightly more education than the fathers. Of the parents of the farmers studied, 33 1/3 per cent were Russian born and educated in a Russian school, consequently their education could not be determined in terms of grades completed.

Table 14. Statistical analysis of number of grades in school completed by the farmers and their parents.

	Mean grade	Standard error of mean	Median grade completed	Standard error of median	Number of cases	
Farmer	8.125	.230	7.942	•2875	120	
Mother	6.27	.278	7.5	•3475	80*	
Father	6.08	•321	6.25	.4012	80	

^{*}The education of the parents who attended school in Russia could not be evaluated in grades.

Present Farming Status of Farmers

The percentages of farmers who were owners and who were renters at the time of interview are revealed in Table 15. The decades 1881-1890 and 1890-1900 lack value for comparisons because of the small number of cases. Ninety-six per cent of the farmers established during the decade 1931-1940 were tenants at the time of these interviews, and 6.2 per cent of the farmers were established as owners by the following combined methods: "owner with financial help of father", "inherited father's farm", "from miscellaneous laborer to owner", and "homesteaded original farm". Therefore it could be assumed that most men begin farming as tenants and acquire ownership of land later in life. The significance ratios indicate a steady increase in ownership during the second and third decades that a man farms. After this time, no marked increase occurs.

Results Not Included in Tables

Some other findings of this survey which were not placed in table form were; 98.3 per cent of the farmers studied were the sons of farmers, 55 per cent of the farmers studied had carried enterprises on father's farm, and 90.8 per cent of the farmers began to farm without previously engaging in any other kind of employment. Furthermore, when the farming status of the fathers of the farmers was studied, the following percentages were found: homesteader, 20.9 per cent; owners, 70.9 per cent; tenants, 8.2 per cent.

Table 15. Analysis by decades in which they became established of the percentages of farmers of Bazine and Highpoint Townships who were owners and renters December, 1940, with significance ratios comparing various decades.

	1881 -	1891 -	1901 - 1910	1911 - 1920	1921 - 1930	1931 - 1940	1881 - 1940	1901- 1910 and 1911- 1920	1911- 1920 and 1921- 1930	1921- 1930 and 1931- 1940	1901- 1910 and 1921- 1930	1901- 1910 and 1931- 1940
Owner	66.7	100.0	88.3	78.4	45.5	4.0	55.0	•4	3.0	4.3	3.1	8.4
Tenant	33.3		16.7	21.5	54.5	96.0	45.0					
Cases	3	4	18	38	33	25	120					

SUMMARY AND CONCLUSIONS

The data for this thesis were secured in controlled personal interviews of 120 of the 360 resident farmers of Bazine and Highpoint Townships in Ness County, Kansas. The sampling was made by interviewing every third farmer living along the road. A farmer was considered established in farming when he had separate enterprises and accounts from those of his father, or when, in case of partnerships, his enterprises and accounts had a definite plan of division.

An effort was made to secure the following information: methods by which men secured their first capital to start farming, the amount of capital used to start farming, the age at which farmers start farming, the education of the farmers and their parents, the proportion of the farmers who were owners and renters, the proportion of farmers' fathers who were renters, owners, and homesteaders, and any changes that had occurred during the period of years in which the men were studied.

The data gathered in this study are significant for Bazine and Highpoint Townships only. Interpretation of the results aided by statistical analysis of the data suggests the following conclusions:

- Farmers became established in farming at the mean age of 22.3 years.
- 2. The mean number of grades the farmers completed was 8.13.
- 3. Farmers usually became owners of land during the second or third decade after becoming established in farming.
- 4. The amount of capital used to start farming has remained small during the entire period.

- 5. Fifty-five per cent of the farmers carried enterprises on father's farm before becoming established.
- 6. Ninety and eight-tenths per cent of the farmers began farming as their first occupation.
- 7. Ninety-eight and three-tenths per cent of the farmers studied were the sons of farmers.
- 8. The use of earnings from enterprises conducted on father's farm, and becoming a tenant with financial help from father have been the most important methods of becoming established in farming during the last four decades.
- 9. Working from farm laborer to farm tenancy has ceased to be an important method of establishment.
- 10. Sons usually do not enter the farming business as partners with fathers.
- 11. Most sons start farming as tenants rather than on farms inherited from fathers.
- 12. Financial institutions and persons other than relatives have established farmers nearly as often as the combination of all relatives except fathers.
- 13. Finally, vocational agriculture is using a method of placement which has proved successful during the period 1901-1940, namely; "enterprises conducted on father's farm".

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APPENDIX

Data Sheet

Name	Age
How long have you been an operator?	
How many grades in school did you comple	te?
At what age did you start farming?	
Capital invested in farming at time of e	stablishment
What occupations did you follow before f	arming?
Did you ever maintain an enterprise on f	Cather's farm? Yes No
Was your father a farmer? Yes No	
If not, what occupation did he follow?	
Did your father rent own	homestead (Check which)
How many grades in school did your father	er complete? Mother?
Methods by which established in farming	(Check which)
From farm laborer to tenant	
From farm laborer to owner	
Tenant with financial help from fat	ther
Owner with financial help from fath	ner
Partner with father	
Partner with others	
Tenant of father's farm	
Inherited father's farm	
From miscellaneous laborer to owner	
From miscellaneous laborer to tenar	nt
Farm Security Administration client	t

	Used earnings accumulated from larming program in Voc. Ag.	H. S.	
	Used earnings accumulated from e prises conducted on father's f		
	Used earnings accumulated from a club projects		
	Tenant with financial help of re	elatives	
	Father-in-law	Uncle	
	Grandfather	Aunt	The Section Se
	Mother-in-law	Other rel	ative
	Owner with financial help of re-	latives	
	Father-in-law	Uncle	
	Grandfather	Aunt	
	Mother-in-law	Other rel	atives
	Tenant with financial help other	r than rel	atives
	Owner with financial help other	than rela	tives
	Homesteaded original farmstead		•
	Secured land by timber claim		
	Other methods		
į.	What difficulties did you encour farming?	nter in be	coming established in
What	is your farming status? Owner		Renter

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