

Recent Trends of Land Tenure in North Dakota¹

By PERRY V. HEMPHILL
Assistant Agricultural Economist

HAVE the recent years of high agricultural income enabled more North Dakota farmers to own the land they operate? In order to get an answer to this question, the North Dakota Agricultural Experiment Station, in cooperation with the Division of Land Economics, Bureau of Agricultural Economics, United States Department of Agriculture, has made a sample survey of the land tenure situation in selected townships in five representative North Dakota counties. The survey made reveals the percentages of full owner farms, of part owner farms, and of tenant farms for each of the years 1941 to 1944, inclusive. The results obtained have been expressed in both percentages of the respective types of tenure of the operators and in percentages of the land operated under the different types of tenure. The data were secured from county AAA records made available through the courtesy of the county officers and personnel of the Agricultural Adjustment Agency.

In 1900 the majority of the farmers of North Dakota owned the land which they operated. According to the United States census, only 8.5 percent of the farms were operated by tenants at that time. The census of that year does not segregate the part owner farms from the full owner farms; consequently, we do not know what percent of the farmers owned all the land they operated in 1900, but we probably can safely assume that at least 75 percent of the farms were full owner farms. In 1940 only 25.5 percent of the farms were full owner farms.

Every U. S. census has shown an increasing percentage of North Dakota farms as operated by tenants. The percentage of tenancy in 1910 was 14.3 percent and in each succeeding decade the percentage increased approximately 10 percent until it had reached 45.1 percent in 1940. The decade of the greatest increase in the percentage of tenancy was the decade of 1910 to 1920 when there was an increase of 11.3 percent. This was a period of high agricul-

tural income and yet there was a decrease in the percentage of farmers owning the land they operated.

Farmers operating in North Dakota during the past 20 years have experienced many years of low agricultural income. It was not until the last several years that the farm income of the State approached the high level of the first World War period. According to estimates made by the Division of Agricultural Statistics, Bureau of Agricultural Economics, the total farm cash income received by farmers in 1943 was the highest of the last 20 years. While comparable figures are not available prior to 1924, the agricultural income of 1943 was undoubtedly the highest in the history of the State. The estimates for the 1944 farm cash income are not yet available but when completed will undoubtedly exceed that of 1943.

A comparison of the farm cash income for the years prior to 1943 with the farm cash income of 1943 may give a picture of the change that has taken place with respect

¹In cooperation with the Bureau of Agricultural Economics, USDA. Robert L. Berger of the Bureau of Agricultural Economics, Reuben Engelking and Donald Peet of the North Dakota Agricultural Experiment Station assisted in the field work.

to the financial status of North Dakota farmers which in turn reflects their ability to own the land that they operate. The farm cash income for 1942 was 75 percent and the farm cash income for 1941 was 54 percent of that of 1943. For the entire eleven year period of 1930 to 1940, inclusive, the farm cash income in any one year never was more than 34 percent of the farm cash income which North Dakota farmers received in 1943. The range for the various years was from 14 percent to 34 percent. The yearly farm cash income for the six-year period of 1924 to 1929, inclusive, ranged from 46 percent to 64 percent of the farm cash income for 1943.

The five counties selected for the sample survey of the land tenure situation in North Dakota were Cass, Stutsman, Stark, Ward and Towner. These counties were selected in order that different sections of the State might be represented in the sample. Cass is a Red River Valley county; Stutsman is one of the southern, east-central counties; Stark is one of the southwestern counties; Ward is one of the northwestern counties; and Towner is one of the northern, east-central counties. Another reason for the selection of Towner county was the fact that the percentage of farms operat-

ed by tenants in this county has been the highest of any North Dakota county every census year since 1920, except for 1940 when two other North Dakota counties had a higher tenancy percentage but neither was more than 1 percent higher. The percentage of farms operated by tenants in Towner county in 1900 was only 6.5 percent, but by 1920 the percentage of tenancy was 46.2 percent and by 1940 had reached 60.0 percent. The percentage of tenancy in Cass county was 15.9 percent in 1900 and increased each decade until it reached 45.2 percent in 1930 and then decreased to 43.4 percent in 1940. Stark county has never had a high degree of tenancy in comparison with many of the other counties of the State. Less than 3 percent of the farms were operated by tenants in either 1900 or 1910, and by 1920 it was only 13 percent. The percentage of tenancy in this county was 38.3 percent in 1940. The trend of tenancy in Stutsman and Ward counties has been very similar except that in Stutsman county the percentage of tenancy in 1900 was 6.4 percent and reached 56.5 by 1940, whereas in Ward county it was 1.0 percent in 1900 and 47.1 percent by 1940.

Three sample townships were selected in each of these five counties.

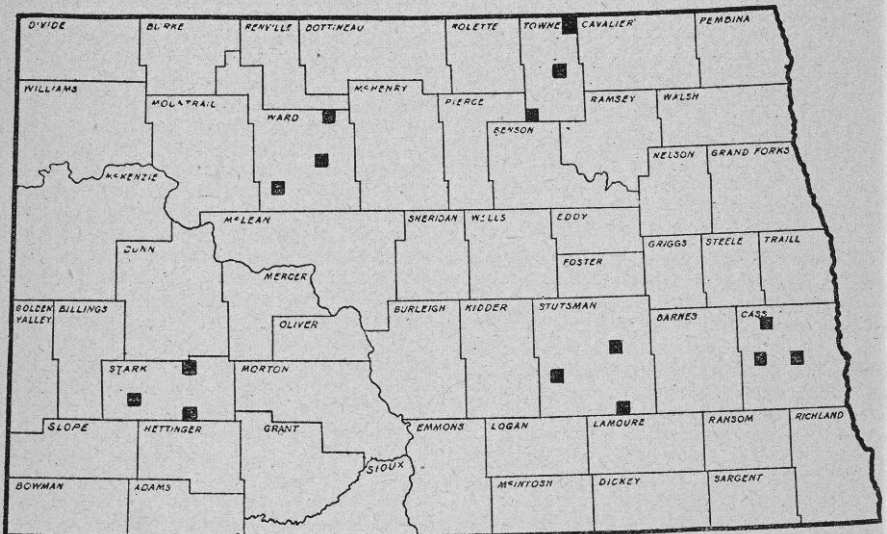


Figure 1.—Location of Sample Townships used in Land Tenure Survey.

Figure 1 gives the location of the townships. The townships were not taken at random but were carefully selected to represent three types of farming in order to obtain, if possible, an average picture of the county as a whole. Likewise, it was thought that the counties selected would indicate the tenure trends that were taking place in various sections of North Dakota and when combined would give a picture of the land tenure trends in the State as a whole.

Data for 1941, 1942, 1943 and 1944 were collected from county AAA records of the sample townships. The name of the operator of each farming unit having one or more tracts within the township was obtained. Also recorded was the number of acres in each tract and the name of the owner of the one or more tracts included in each farming unit. The percentage of farms operated under three different tenure classifications—full owner, part owner and tenant—has been calculated for each of the four years covered by the survey. Table 1 gives the changes that have occurred in the survey sample North Dakota townships expressed as percentages of the number of farms in each of the tenure of operator classifications. The reader should note that the percentages are based on numbers of

farms and not on acres in the farming units, and also, that included in each sample township are all farming units that have one or more tracts within the township. In other words, the sample is slightly larger than the township because all farming units are not confined within the legal bounds of the township.

The five counties all show a decrease in the percentage of tenancy for the period of 1941 to 1944. The average decrease for the five counties was 14.4 percent. This did not result in a corresponding increase in the percentage of full owner operated farms, however. The average increase for the five counties in the full owner farms was only 3.0 percent whereas the part owner farms increased 11.4 percent. In Towner county there was actually a decrease of 4.8 percent in full owner farms in spite of the fact that there was also a decrease of 9.0 percent in tenant farms. Stark county is the only county of the five where the change of percentage of full owner farms anywhere nearly equalled the change or decrease in the percentage of tenant farms. In this county the decrease in the percentage of tenant farms was 6.0 percent while the increase in full owner farms was 7.1 percent as there was also a decrease of 1.1 percent in part owner farms. It may not be amiss to call attention

TABLE 1—Percentage of Farms¹ by Tenure of Operator—1941 to 1944. Sample Townships in Five North Dakota Counties

Tenure	Year	Five County	Cass	Stutsman	Stark	Ward	Towner
		Average (15 Twp.)	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)
		Percent	Percent	Percent	Percent	Percent	Percent
Full Owner Farms	1941	22.4	25.7	12.9	31.3	21.8	20.5
	1942	25.3	25.8	15.3	39.7	27.5	18.4
	1943	25.4	29.1	15.9	36.2	30.5	16.2
	1944	25.4	26.7	20.9	38.4	25.7	15.7
	Increase or Decrease 1941 to 1944	+3.0	+1.0	+8.0	+7.1	+3.9	-4.8
Part Owner Farms	1941	24.5	31.7	16.3	33.3	25.6	16.1
	1942	29.7	32.7	28.5	32.9	33.3	21.5
	1943	31.7	30.5	32.4	36.9	33.8	25.3
	1944	35.9	36.0	39.2	32.2	42.1	29.9
	Increase or Decrease 1941 to 1944	+11.4	+4.3	+22.9	-1.1	+16.5	+13.8
Tenant Farms	1941	53.1	42.6	70.8	35.4	52.6	63.4
	1942	45.0	41.5	56.2	27.4	39.2	60.1
	1943	42.9	40.4	51.7	26.9	35.7	58.5
	1944	38.7	37.3	39.9	29.4	32.2	54.4
	Decrease 1941 to 1944	-14.4	-5.3	-30.9	-6.0	-20.4	-9.0

Source: Compiled from County AAA records.

¹Based on number of complete farm units having one or more tracts in sample township.

to the fact that Stark county is located in an area that has, since 1939, probably had more successive good crops than any other area in North Dakota.

It may be of interest to compare the 1940 census tenancy percentage figures for these five counties with the 1941 tenancy percentage figures in Table 1. It should be clearly understood, however, that the two sets of figures may not be entirely comparable unless the three sample townships in each county are truly

and accurately representative of that county. Such a comparison, which should at least show the general direction of the tenancy trend, is shown in Table 2.

The census of 1940 was made early in that year but the tenure of farms' figures probably reflect the situation as it existed for 1939. It can therefore be concluded that there is a lag of approximately two years between the U. S. census data and the data for 1941 as secured during the tenure trends survey.

TABLE 2—Percentage of Tenancy; Comparison of 1940 U. S. Census¹ and 1941 Survey Data². Selected North Dakota Counties.

Year	Five County Average	Cass County	Stutsman County	Stark County	Ward County	Towner County
	Percent	Percent	Percent	Percent	Percent	Percent
Proportion of Tenant Farms 1939 (1940 Census)	48.5	43.4	56.5	38.3	47.1	60.0
Proportion of Tenant Farms 1941 (Table 1)	53.1	42.6	70.8	35.4	52.6	63.4
Increase or Decrease 1939¹ to 1941	+4.6	-0.8	+14.3	-2.9	+5.5	+3.4

¹U. S. Census taken early in 1940 but probably reflects 1939 situation.

²Survey compiled from AAA records as of January, 1942, thus reflecting the 1941 situation.

Table 2 indicates that for the five counties as a whole the proportion of tenancy continued to increase during these two years. The increase was 4.6 percent. Not all of the five counties show an increase, however. In Cass county there was a slight decrease in the proportion of tenancy which is a continuation of the trend which took place between the 1930 census and the 1940 census. The proportion of tenancy in Stark county also shows a decrease which is a reversal of the previous trend. That the reversal of the trend came prior to 1941 in Stark county can undoubtedly be explained by the fact that this county had good crops in both 1939 and 1940. Table 2 indicates that the tenancy trend continued upward in Stutsman, Ward and Towner counties until 1941.

The increase of 14.3 percent in the proportion of tenancy in Stutsman county in two years just prior to 1941, followed by a decrease of 30.9 percent (see Table 1) by 1944, may seem to indicate that the proportion of tenancy of 70.8 percent in 1941 is an error, especially in view of the fact that 14.6 percent of the 30.9

percent decrease came between 1941 and 1942. A careful examination of the data for each of the three sample townships of Stutsman county revealed that the percentage of farms being operated by tenants in each township was very nearly the same in each case. The possibility of an error, or that one of the sample townships was out of line, was therefore ruled out. What then can be a logical explanation of the rather violent changes in the proportion of tenancy in Stutsman county? A study of land transfers being made by the North Dakota Agricultural Experiment Station and the Bureau of Agricultural Economics indicates that in Stutsman county, following the lifting of the moratorium, there was a considerable amount of activity in the transfer of title to land. In 1941 transfers of title for 7.7 percent of the land of the county were recorded. Since a number of such transfers commonly are not immediately recorded, it may be estimated that the title of as much as 10 percent of the farm land in Stutsman county changed hands in that one year alone. The 1940 crop in

this county was poor. This had been preceded by a series of comparatively poor crop years. The first of the recent so-called bumper crops did not come to Stutsman county until 1941. The Stutsman county percentage of tenancy between 1939 and 1941 increased 14.3 percent and decreased almost an identical amount, or 14.6 percent, between 1941 and 1942 which was the first year following the bumper crop.

So far the discussion and tables of this article have been based upon percentages that were calculated from numbers of farming units in

the sample townships. It may also be of interest to observe the trends in the number of acres being operated by the owners as compared to the number of acres being operated under lease. Table 3 gives such a comparison.

The percentages in Table 3 are based upon the total number of acres included in all the farming units of each sample township, with the acreage being operated by owners each year in one group and the acreage being operated by tenants or renters in the other group. In other words, the acreage of the

TABLE 3—Percent of Farm Land¹ in Farming Units Operated by Owner and Percent Operated by Tenant. Sample Townships in Five North Dakota Counties

Tenure	Year	Five County Average	Cass County (3 Twp.)	Stutsman County (3 Twp.)	Stark County (3 Twp.)	Ward County (3 Twp.)	Towner County (3 Twp.)
		Percent	Percent	Percent	Percent	Percent	Percent
Owner Operated	1941	37.2	48.6	20.9	52.1	33.6	29.5
	1942	41.8	50.2	28.0	58.6	41.2	30.5
	1943	43.6	52.2	34.9	55.9	44.7	30.8
	1944	45.3	50.5	40.8	55.2	47.2	33.1
Increase	1941 to 1944	+8.1	+1.9	+19.9	+3.1	+13.6	3.6
Tenant Operated	1941	62.8	51.4	79.1	47.9	66.4	70.5
	1942	68.2	49.8	72.0	41.4	58.8	69.5
	1943	56.4	47.8	65.1	44.1	55.3	69.2
	1944	54.7	49.5	59.2	44.8	52.8	66.9
Decrease	1941 to 1944	-8.1	-1.9	-19.9	-3.1	-13.6	-3.6

Source: Compiled from county AAA records. Includes acreage of all farm land in farming units having one or more tracts within the sample township.

owned portions of all the part owner farms was combined with that of the full owner farms and the acreage of the rented portions of the part owner farms was combined with that of the tenant farms. Table 3 indicates that for the five counties as a whole there was an increase of 8.1 percent in land being operated by the owner during the period of 1941 to 1944. The change in the direction of operator owned land ranged from an increase of 1.9 percent in Cass county to an increase of 19.9 percent in Stutsman county.

All of the percentages used so far to express trends have been based on farming units having one or more tracts within the sample township. This has caused a slight year to year variation in the total number of acres in the sample in each case due to year to year changes in a few farming units that had tracts both inside and outside of the

sample township. For example, a certain farming unit may have had two tracts in 1941, one in the township and one outside. In 1942 another tract was added but it was also outside. In 1943 this farming unit had only two tracts, neither of which was inside the sample township and, therefore, the farming unit was no longer considered as a part of the sample. In four of the five counties there were certain tracts that were idle one or more years and therefore, not a part of any farming unit. This also caused a slight variation in the total number of acres in the sample.

In order to observe the tenure changes of only the farming land located within the legal boundaries of the sample township, another calculation has been made, based on tracts rather than on farming units. In a few cases a tract contained land both inside and outside of the

sample township. In this case only the acres inside the township were considered, as dropping the outside acreage had no effect on the tenure status of that portion of the tract inside the township. This made it possible to compare identical acres each year. The results of this calculation are shown in Table 4.

The five counties as a whole show an increase of 7.3 percent in the number of acres being operated by the owner. There was a decrease of 6.6 percent in the number of acres being operated by a tenant or renter. The difference between these two figures is accounted for in the change in the number of idle acres. In one township in Ward county, it

was not possible to determine from AAA records the tenure status of certain grassland tracts. The acreage of these tracts was included with the idle acreage. This accounts for the rather large percentage of idle land in Ward county, especially in 1941. When considering only the farm land in the three sample townships in Towner county, there was, for the period 1941 to 1944, a decrease of 3.3 percent in the land being operated by the owner. The other four counties all show an increase in the percentage of land being operated by owners with the changes ranging from 3.6 percent for Cass county to 20.2 percent for Stutsman county.

TABLE 4.—Percent of Farm Land¹ in Township Operated by Owner and Percent Operated by Tenant. Sample Townships in Five North Dakota Counties

Tenure of land	Year	Five	Cass	Stutsman	Stark	Ward	Towner
		County Average	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)	County (3 Twp.)
		Percent	Percent	Percent	Percent	Percent	Percent
Owner Operated	1941	34.6	42.9	16.5	52.1	29.4	32.4
	1942	39.1	44.3	23.5	57.1	37.5	33.3
	1943	40.3	46.9	30.1	53.3	43.3	28.5
	1944	41.9	46.5	36.7	52.9	45.1	29.4
	Increase or Decrease	1941 to 1944	+7.3	+3.6	+20.2	+0.8	+15.7
Tenant Operated	1941	61.7	57.1	77.3	47.4	60.3	66.5
	1942	57.6	55.7	70.4	42.4	53.7	65.5
	1943	56.8	53.1	64.2	46.2	50.1	69.5
	1944	55.1	53.5	57.8	46.6	48.3	68.3
	Increase or Decrease	1941 to 1944	-6.6	-3.6	-19.5	-0.8	-12.0
Idle or Operator Unknown	1941	3.7	0.0	6.2	0.5	10.3	1.4
	1942	3.3	0.0	6.1	0.5	8.8	1.3
	1943	2.9	0.0	5.7	0.5	6.6	1.5
	1944	3.0	0.0	5.5	0.5	6.6	2.5
	Increase or Decrease	1941 to 1944	-0.7	0.0	-0.7	0.0	-3.7

Source: Compiled from county AAA records.

¹Includes acreage of all farm land in sample township disregarding farming units.

Summary

The present period of high agricultural income, climaxed by 1943 and 1944 when the income received by North Dakota farmers was probably the highest in the history of the State, has resulted in a change in the land tenure situation. A sample survey of land tenure trends in three townships in each of five representative North Dakota counties indicates that there has been a general decrease in the percentage of farms being operated by tenants. The average decrease from 1941 to 1944 in the percentage of tenancy for the fifteen townships surveyed was 14.4 percent. There was not a

corresponding increase in the percentage of full owner farms as the increase in full owner farms was 3.0 percent whereas the part owner farms increased 11.4 percent. A study of the tenure of the land in the fifteen townships, disregarding the farming units, revealed that for the period of 1941 to 1944 there has been a decrease of 6.6 percent in the number of acres being operated by a tenant or renter and an increase of 7.3 percent in the number of acres being operated by the owner.

The average tenure changes for the period of 1941 to 1944 were not the same in all of the five counties.

There was a decrease of 5.3 percent in the number of tenant farms in Cass county with an increase of 1.0 percent in full owner farms and 4.3 percent in part owner farms. The increase in the number of acres operated by the owner was 3.6 percent with the same percentage decrease in the number of acres being operated by tenants. The most pronounced tenure change occurred in Stutsman county as there was a decrease of 30.9 percent in the percentage of tenant farms, an increase of 8.0 percent in full owner farms, and an increase of 22.9 percent in part owner farms. In this county there was a decrease of 19.5 percent in the number of acres of land being operated by a tenant or renter and an increase of 20.2 percent in the land operated by the owner. Stark county is the only county of the five where the increase in the number of full owner farms during the period of 1941 to 1944 exceeded the decrease in the number of tenant farms. The tenure changes were: 6.0 percent decrease in tenant farms, 1.1 percent decrease in part owner farms and 7.1 percent increase in full owner farms. There was only a slight change in the number of acres of land being operated by tenants

as the decrease was 0.8 percent with an increase of 0.8 percent in the number of acres being operated by the owners. During the same period there was a considerable change in the tenure situation in Ward county where the number of tenant farms decreased 20.4 percent, the number of full owner farms increased 3.9 percent and the number of part owner farms increased 16.5 percent. The changes in the tenure of the acres of land in the sample townships of the county were a decrease of 12.0 percent in tenant operated land and an increase of 15.7 percent in owner operated land. The percentage of tenant farms in Towner county decreased, but at the same time the percentage of full owner farms also decreased as there was an increase of 13.8 percent in the part owner farms, a decrease of 9.0 percent in tenant farms and a decrease of 4.8 percent in full owner farms. When considering only the farm land within the three sample townships in Towner county, disregarding farming units, there was actually an increase of 2.1 percent in the number of acres being operated by tenants and a decrease of 3.3 percent in the number of acres being operated by the owner.

WE EAT MORE VEGETABLES AND LESS POTATOES

The per capita consumption of fresh vegetables and melons in the United States has gone up sharply during the 35 year period 1909-1943. The per capita apparent consumption is defined as the weight of the vegetables as they leave the farm. In the period under study the lowest per capita consumption, 181 pounds, was estimated for 1911, and the highest, 251 pounds, was estimated for 1942. Actual consumption levels are about 15 percent less, due to normal marketing losses, shrinkage and spoilage in transit and in storage, and spoilage in stores. Still another deduction from these figures, not estimated in these reports, are the losses in preparation for the table, although some of these losses are probably included in the 15 percent normal marketing loss.

Potato consumption has gone down steadily during the same 35 year period. Its high point was in 1910 with 197 pounds per capita and its low point in 1939 with only 121 pounds per capita. There have been slight increases in the per capita consumption of potatoes since 1939, the increase ranging from 6 to 10 pounds per capita. The data on potatoes do not include sweet potatoes. Per capita consumption of this commodity has fluctuated but has trended downward. (From "Production and Consumption of Vegetables, United States, 1909-43," United States Department of Agriculture, Bureau of Agricultural Economics, Mimeographed, December, 1944, Prepared by R. S. Berberich. Abstracted by H.L.W.)