

SOME FACTORS AFFECTING FARM INTENSITY AND SIZE
OF FARMS IN MUSKOGEE COUNTY, OKLAHOMA

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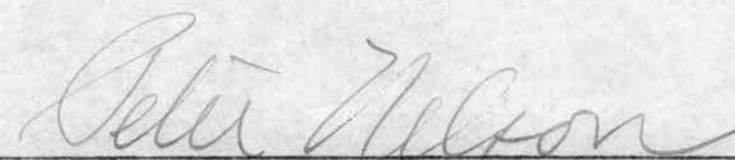
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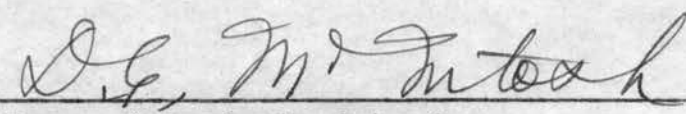
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SOME FACTORS AFFECTING FARM INTENSITY AND SIZE
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INTRODUCTION

It is an assumption of competitive economic theory that each entrepreneur will strive to so organize his business as to bring him the largest net returns.¹ This assumption applied more specifically to agriculture would imply that each farmer would strive to so organize his farm business as to yield him the greatest net returns. He would grow only those crops or engage in those enterprises which he had found would pay him most. He would strive to incorporate within his farm unit only that amount of land which he had found he could most advantageously manage; and to that land and to his management he would add as much machinery, equipment and hired labor as would continue to augment his net returns.

From these assumptions economists have derived a number of principles, but before they are considered, perhaps it would be well to reflect just a little more upon the important assumption that each entrepreneur or farmer strives to secure the highest possible net returns. Although all rational men may strive to get the highest net returns, certain real impediments exist which cause some managers only remotely to approximate complete attainment. Men differ widely in natural ability and in the amount and degree of training which they have had. Not only

¹H. C. Taylor, Outline of Agriculture Economics, p. 134.

do men differ in capacity and efficiency, but some may lack the necessary tools and facilities which are available to others.

These factors, then, make it possible to say that no entrepreneur always acts economically. As Marshall has pointed out, the so-called "economic man" does not exist in reality.² However, it may still be said that the great mass of men will behave in such a way in their economic life as to permit principles to be derived from their economic conduct. A discussion of such principles is, of course, far beyond the scope of this work or this writer. It is intended here to review briefly only those which have a bearing on the problem to be considered, namely, the economic factors which in general affect the choice of crops grown, the size of farms, and the intensity of cultivation.

An entrepreneur with available capital to invest will, if he is prompted by purely economic motives, select some enterprise or form of investment which he believes will bring him the highest possible returns.³ If he believes agriculture will bring him the greatest return on his capital, and if he buys or rents land in some designated locality, he will obviously elect those crops or enterprises which would bring

²Alfred Marshall, Principles of Economics, p. 27. The concept of the "economic man" as developed by the classical economists, constituted a mechanical, wholly logical being, guided in all actions by material and consistent self-interest.

³"Having an available sum for investment, he will attempt to utilize it in such a manner as to bring him the highest possible returns." Holmes, Farm Management, p. 148.

him a greater return than any other that he might select. What these enterprises might be depend largely upon forces outside his control once he has designated the locality of his farm. Competitive forces determine the type of farming in each locality and bestow upon some enterprise or groups of enterprises a greater comparative advantage than any other which might be placed within the farm organization. These forces are well described in the following passage:

Geographical variability in types of farming is in general the result of regional fitness for agricultural production of a particular kind.

This regional fitness is determined by the joint operation of three groups or classes of forces that affect economy of production. The first of these, the physical, includes soil, climate, distribution of rainfall and others of similar character; the second, the biological, includes insect pests and the like; while the third has to do with such things as transportation, price relationships, distance to market, character of the people, and other man made conditions. Farmers who misunderstand, ignore or attempt to operate counter to the action of these forces usually find farming unprofitable.⁴

A farmer, then, if he is an "economic" or rather a rational man will not necessarily develop those enterprises for which he has a personal preference, but will utilize his land, labor and capital in developing those enterprises which will bring him the greatest return as determined by the forces mentioned in the above passage. What those enterprises are, he will find out by observation and by trial and error, and they will largely determine the size of his farm and the intensity of his cultivation.

⁴Peter Nelson, "Geographical Variability in Types of Farming in Oklahoma," Current Farm Economics, Okla. Agri. Experiment Station, Stillwater, Okla., Feb., 1936, Vol. 9, No. 1, p. 5.

GENERAL ECONOMIC FACTORS AFFECTING SIZE OF
FARMS AND INTENSITY

The forces determining the most economic size of farm and degree of intensity are really related to the previously discussed question of the forces determining types of farming. The most important of these forces affecting size of farms and intensity are character of the soil, topography, capacity of the farmer, markets and density of population, crops grown, climate and size of family.⁵ These factors will not be discussed in detail here but will be brought into the discussion later on.

Perhaps it would be well to dwell briefly here upon the meaning of intensity according to orthodox economic theory. Intensity is linked with the law of diminishing returns, with the theory of economic rent, and with the intensive and extensive margins of cultivation. The extensive margin refers to the grade of land,⁶ or more specifically to the application of a known quantity of labor and capital to the lowest grade of land in use for its most advantageous purpose. Such land barely yields a return sufficient to cover the expenses involved and marks the outer fringe beyond which land is not utilized. The intensive margin, on the other hand, refers to that point in the utilization of any piece of land where the least productive homogeneous unit of labor and capital is applied.

⁵H. C. Taylor, Op. cit., pp. 172-174.

⁶J. D. Black, "Notes on Land Intensity," Quarterly Journal of Economics, Vol. 20, No. 4, p. 350.

In other words, it is that last unit of labor and capital applied which barely yields an increase in the returns sufficient to cover the increase in the costs involved. According to this reasoning, then, a farmer will continue applying successive units of labor and capital to superior land until the returns on the last unit supplied equal the returns for the same unit applied to marginal land. This will be apparent when it is realized that the goal of the farmer is the highest net profit for his exertion. The more advantageous land will yield him a higher rate of return than the less advantageous land for the same amount of capital and labor applied. Therefore he will continue applying labor and capital to the more advantageous lands until, through the operation of the law of diminishing returns, the marginal increments would so diminish that they would be no more or even less than the result of the same amount of labor and capital applied to less advantageous land which accordingly would be brought into cultivation.⁷

Theoretically, then, "at any time the returns for a given unit of investment upon the intensive margin and of the same investment on the extensive margin tend to be equal."⁸ If the above analysis is correct, then it would seem to be the best interests of the farmer to apply less labor and capital to a unit of inferior land than to the same area of superior land, with the

⁷ . . . "and it (poorer land) is so cultivated because the farmer knows that it is more profitable for him to plough and plant a less fertile field than to attempt to force the yield of the more fertile beyond a certain limit." Francis A. Walker, Land and its Rent, p. 17.

⁸ Holmes, Op. cit., p. 440.

result that the family sized farm would be larger in area on less advantageous land, because it could not absorb successive units of labor and capital as could the more advantageous land. Therefore, such units would be spread over a wider region. This is assuming, of course, that the economic location of the two areas is not so dissimilar as to deflect this tendency.

Some economists state directly that intensity varies with the physical grades of land,⁹ while others state that, while this may be the general tendency, there are areas where this is not the case, due to various factors such as differences in topography, type of farming, and variations in the capacity of land as well as in its fertility.¹⁰

It is the intention of the writer to examine some of the various factors affecting intensity and size of farms in Muskogee County, Oklahoma, and to analyze the factors on the basis of the economic theory just discussed.

Before this is done, however, it would be well to give a description of the county and to present a rough analysis of what one might expect the intensity to be if all farmers were "economic men." To facilitate the latter part of this task, Muskogee County will be contrasted with Garfield County, which in many respects ranks among the most prosperous counties in the state.

⁹R. T. Ely, Outlines of Economics, p. 440.

¹⁰Conrad Hammer, "Intensity and Land Rent," Journal of Farm Economics, Vol. 20, No. 4, p. 378-791.

LOCATION AND DESCRIPTION OF MUSKOGEE AND GARFIELD COUNTIES

Muskogee County: Muskogee county is situated in the eastern part of Oklahoma about midway between the northern and southern boundaries. It is irregular in shape and embraces an area of 814 square miles or 520,960 acres. Its greatest length north and south is 38 miles and its width east and west is 36 miles.

"This county includes three general physiographic divisions, one belonging to the Ozark Uplift, another to the Prairie Plains province, and the third lying between these comprising the bottoms and terraces of the Arkansas and Canadian rivers. The wooded uplands, locally known as "mountains" comprise about 7% of the area of the county. They are confined mostly to the eastern tier of townships."

"The prairie plains, which form the greater part of the area of the county, rise generally toward the west varying in elevation from 500 to 700 feet above sea level. The surface varies from nearly level to rolling and is broken in places by treeless ridges and rounded hills."¹¹

The climate of Muskogee county is favorable for agriculture. The average mean temperature for the past forty years was 60.7 degrees F. The highest temperature on record was 111 degrees. The average date of the last killing frost in the spring was March 30, while the first in the fall was November 2, giving an average of 217 frost free days.

¹¹U.S.D.A., Soil Survey of Muskogee County, Oklahoma, Bur. of Chem. and Soils in Coop. with Okla. Agri. Exper. Sta., Stillwater, Okla., 1915, p. 4.

Garfield County: Garfield county is situated in the north central part of Oklahoma. It is rectangular in outline and has an area of 1,061 square miles or 679,040 acres. It is located at the western border of the eastern prairies where they merge westward with the broad subhumid plains areas. The county might be divided into four distinct areas or divisions on the basis of soil type. The first division includes the heavy textured upland soils which are relatively fertile and which were originally covered by native grasses. Most of the county would fall within this division.

A second division would include the salty soils. They are dominated by salt grass and comprise but a small portion of the total area of the county.

A third division would include the loose sandy soils in the western portion of the county. This area was originally covered by black jack oak and includes some of the poorest land in the county.

A fourth division would include the fertile alluvial soils along the stream courses. Most of the land in the county is level to gently rolling. But very little of it is too rough for cultivation.¹²

Garfield county is both drier and has a smaller number of frost free days than Muskogee county. However, the difference between the two in this respect is not great. The average

¹²U.S.D.A., Soil Survey of Garfield County, Oklahoma, Bur. of Chem. and Soils in Coop. with Okla. Agri. Exp. Sta., Stillwater, Okla., 1938.

rainfall for Garfield is 30.5 inches as compared with 36.01 inches for Muskogee county. However, a greater proportion of the rainfall in Muskogee county comes during the winter months and less during the growing season than in Garfield county. The mean temperature is 58.9 degrees F. The average number of frost free days is 197 as compared with 217 for Muskogee county.

There is very little difference in the economic location of the two counties, for both are fortunate in this respect. Enid, the largest city in Garfield county, and Muskogee, the largest city of Muskogee county, are cities of about 30,000 population. They provide a market and a shipping center for farm products. Six railroads cross Muskogee county and five cross Garfield county. Several hard surfaced highways cross each county, and no farm in either county is very far from a good road leading to market.

The map on page 10 reveals that the average distance of farms from town in Muskogee county is probably greater than in Garfield county, due to the fact that Muskogee is situated in one corner of the county while Enid is more centrally located. It would seem that this fact would work toward the advantage of the Garfield county farms and would supply one reason for greater intensity there. However, hard surfaced roads reach into virtually every corner of Muskogee county, and this would tend to reduce by some extent the differences caused by the greater distances.



MAP: Showing the location of Muskogee and Garfield Counties

RELATIVE INTENSITY AS ONE WOULD EXPECT IT TO BE IN
THE TWO COUNTIES ACCORDING TO ECONOMIC THEORY

Theoretically, what factors might cause variations in intensity between the two counties? Differences in economic location, while important, would probably not be a major factor. While Garfield county had a slight advantage in freight rates, this would probably be offset to some extent by differences in economic location.

Another usually important factor affecting intensity is the fertility and character of the soil. It has been mentioned previously that a farmer would normally apply less capital and labor to a unit of inferior land than to the same unit of superior land. How would one expect this factor to affect variations in intensity in the two counties?

In this paper, land value will be used as a measure of land quality, although such a measure is open to several serious objections such as that it is equally affected by differences in capitalization rates which also profoundly affect values.¹⁴ However, in spite of these drawbacks, land values will still be used in the present instance, because they are not likely to cause great differences in the two counties concerned, and because no other measure is readily available.

In 1930, the average value of all farm land per acre in Garfield county was \$55, while in Muskogee county it was \$33.¹⁵

¹⁴Conrad H. Hammer, *op. cit.*, p. 781.

¹⁵United States Census, Vol. II, Part II, 1930.

In 1937, the average value per acre of a sample of 53 farms in Garfield county was \$50, while the average value per acre for a sample of 72 farms in 1938 was \$48 an acre. (Table 3.) The average value per acre for samples of 59 and 218 farms in Muskogee county for 1937 and 1938 was \$19 and \$18, respectively.

This would seem to indicate that the Muskogee county land is as a whole inferior to the Garfield county land. Therefore, one would expect that less labor and capital would be applied to a unit of Muskogee county land than to an equal unit of Garfield county land, with the result that the Garfield county farms would as a whole be more intensively cultivated than Muskogee county farms, and would be on an average smaller in area. This would certainly be expected if the two areas were similar in the type of enterprises specialized in.

RELATIVE INTENSITY AS IT ACTUALLY EXISTS

It has been stated previously that the term "land intensity" refers to the amount, or rather the degree to which labor and capital are applied to land. Thus, land may be spoken of as labor intensive and capital extensive or capital intensive and labor extensive, or as both labor and capital intensive or extensive.

An index of intensity was constructed for both Muskogee and Garfield counties from the data gathered in the 1937 and 1938 surveys. The index of labor and capital intensity was derived from the following formula:

$$\frac{\text{Av. value of labor used per yr.} \div \text{Av. value of capital used per yr.}}{\text{Av. value of land}}$$

index of labor and capital intensity.

Table 1

A Comparison of Selected Items Measuring Farm Size
and Intensity in Muskogee and Garfield Counties, 1930.

	: : Number : of : Farms	: Ave. : Size of : Farm : (Acres)	: Value of Imple- : ments and Mach. : Per : Farm	: Per : Acre	: Value of : Farm Buildings : Per : Farm	: Per : Acre	: Ave. : Value : of Land : Per Acre	: Ave. : Value of : Land and Bldgs. : Per : Farm	: Per : Acre	: Area : (Acres)	: Ave. Crop: : Land Per : Farm : (Acres)
Muskogee	4,487	86.5	\$ 182	\$2.11	\$ 756	\$8.75	\$33	\$ 3,610	\$42	520,960	158
Garfield	3,478	204.2	1,032	5.08	1,970	9.65	55	13,161	64	679,040	136

Source: Fifteenth Census of the United States, Vol. II, Part II, 1930.

Table 2

Total Rural Farm Population and Number of Persons Working
on Farms, January 1, 1935.

	Garfield			Muskogee			Memorandum:	
	Garfield			Muskogee			Population Per	
	Garfield			Muskogee			100 Acres	
	No. of Farms	Total No. of Persons	Ave. Per Farm	No. of Farms	Total No. of Persons	Ave. Per Farm	Garfield	Muskogee
	Reporting			Reporting				
Family Labor and/or Hired Labor	2,953	*	1.7	4,400	*	2.3		
Family Labor	2,918	4,350	1.4	4,324	9,496	2.3		
Hired Labor	427	684	1.5	523	818	1.5		
Total Rural-Farm Population	*	12,016	3.4	*	23,739	5.3	1.7	6.1

Source: Bureau of Census, United States Census of Agriculture, 1935, Vol. II, Part 2.

* Not available.

Table 3

Value of Labor Used on Farms, Amount of Capital Invested, Average Number of Acres
in Farms and Average Value of Land for a Selected Number of Farms
in Muskogee and Garfield Counties, 1937 and 1938

: Acres in		: Acres		: Value of Labor		: Amount of		:				
: Farms		: in Crops		: Used on Farms		: Capital Invested:		Land Value				
: Total	:	: Total	: Ave.:	: Total	: Ave.	: Total	: Ave.	: Total	: Ave.	: Total	: Ave. Per:	: No. of:
:	: Ave.:	:	:	:	:	:	:	:	:	: Acre	: Farm	: Farms :
Garfield County												
1937	18,540	349	13,209	249	\$ 48,516	\$915.4	\$347,068	\$6,548	\$ 926,966	\$50	\$17,489	53
1938	28,171	349	18,810	261	64,534	896.0	469,467	6,520	1,216,188	48	16,891	72
1937-38	43,711	349	32,019	256	113,050	904.4	816,535	6,532	2,143,154	49	17,145	125
Muskogee County												
1937	26,673	113	4,242	72	\$ 27,835	\$472	\$ 61,131	\$1,036	\$127,563	19.1	\$2,160	59
1938	24,905	114	16,047	73	107,346	492	91,773	879	459,800	18.5	2,109	218
1937-38	31,578	114	20,289	72.5	135,181	488	252,904	913	587,363	18.7	2,120	277

Source: Derived from data gathered by the Department of Agricultural Economics, Oklahoma A. and M. College, 1937 and 1938.

The average value of labor applied on the farm per year was used rather than the number of persons working because of the variations in the efficiency of labor between the two counties and on separate farms within each county. Likewise, the value of land was used rather than the extent of the operated area, because land value is itself influenced by some of the same factors which determine the value of labor and capital used per farm during the year. The index of labor intensity and the index of capital intensity were derived in a similar manner, the amount of labor and the amount of capital each being divided separately by the average value of land.

The results of this method of computation are shown in Table 4. Contrary to what one might expect, Muskogee County was found to be more intensive than Garfield County.

Table 4

Indices of Intensity in Muskogee and Garfield Counties 1937-38

	: Muskogee County :			: Garfield County:		
	:1937	1938:	1937-38	:1937:	1938:	1937-38
Index of Labor and Capital Intensity	69.8	64.8	66.0	42.6	43.9	43.3
Index of Labor Intensity	21.8	23.0	23.0	5.0	5.1	5.2
Index of Capital Intensity	48.0	41.7	43.0	37.4	38.6	38.0

Source: Derived from Data Gathered by the Department of Agricultural Economics, Oklahoma A. and M. College, 1937 and 1938.

The index of total intensity for the two years average of 1937 and 1938 was 66.0 for Muskogee County and 43.3 for Garfield County. Muskogee County was considerably more labor intensive than Garfield County, the two years average being 23.0 for

Muskogee County and 5.2 for Garfield County. A much smaller difference separated the index of capital intensity for the two areas, however, the two year average being 43.0 for Muskogee County and 38.0 for Garfield County.

Reference to Table 3 also reveals that the farmers in Garfield County had an average investment considerably larger than the average investment in Muskogee County. The two year average capital investment per farm in Garfield County was \$6,522, while for Muskogee County during the same period the average capital investment per farm was only \$913, the average investment in land being \$17,145. For the same period the average size of farm in Muskogee County was 114 acres with the average investment in land being \$2,120 per farm.

Table 5 gives the average labor income and the average returns to capital and family labor per farm in Muskogee and Garfield counties for the years 1935, 1937 and 1938. The data reveals that the average labor income and average returns to capital and family labor were considerably higher in Garfield County than in Muskogee County, the only exception being in 1938 when the labor income in Garfield County was extremely low due to low wheat yields and low prices. However, 1937 was an exceptionally good year in Garfield County so the three year average should approach an approximately normal figure.

As was discussed to some extent previously, under perfect competition one would expect the average income of farmers in the two areas to be approximately the same, and it has just been pointed out that this may not be the case.

The fact that the size of farms is so much greater in Garfield County while intensity is greater in Muskogee County suggests that this may possibly have some relation to the differences in income, especially as intensity and size of farms are different from what one might expect them to be from economic theory. It is possible that they are not in conformity with the farmer's best economic interests.

However, Muskogee County has a much more dense farm population than has Garfield County. In 1930 there were on an average 6.1 persons per 100 acres of land in Muskogee County and only 1.7 persons per 100 acres of land in Garfield County. Historically, an increase in intensity in the utilization of land is often the result of a relative increase in the population.¹⁶ But the question immediately arises, why is the farm population more dense in Muskogee County than in Garfield County? If the land in Garfield County is more fertile than in Muskogee County, and if accessibility is no more difficult, would not one expect it to reward a dense population more liberally than Muskogee County? Is the intensity and relatively small sized farms in Muskogee County really in conformity with the farmer's best economic interests?

A relatively dense farm population upon poor land is no rare thing in the United States as has been revealed by various studies. Hammer and Muntzel found that rough, stony hill land regions in Tennessee and Missouri were much more densely

¹⁶H. C. Taylor, *Op. cit.*, p. 160.

populated and intensively cultivated than some of the best Missouri corn land.¹⁷ In a Kentucky study it was found that Laurel County, in the Cumberland mountain region, contained nearly twice the farm population of Bourbon County in the fertile central portion of the state, although it contained less than one-third as many acres of tillable land per person.¹⁸

Table 5

Average Labor Income and Average Returns to Capital and Family Labor per Farm in Muskogee and Garfield Counties, 1935, 1937 and 1938.

Average Returns to Capital and Family							
:	1935	:	1937	:	1938	:	:
No. of	Average	No. of	Average	No. of	Average	3 Year	:
Farms	Returns	Farms	Returns	Farms	Returns	Average	:
Muskogee 52	\$219	59	\$ 460	218	\$463	\$ 381	
Garfield 105	814	53	3,060	72	688	2,187	
Average Labor Income							
:	1935	:	1937	:	1938	:	:
No. of	Average	No. of	Average	No. of	Average	3 Year	:
Farms	Returns	Farms	Returns	Farms	Returns	Average	:
Muskogee 52	\$ 106*	59	\$ 293	218	\$252	\$150*	
Garfield 105	1,336	53	1,729	72	585	823	

* Approximately

Source: W. D. Nichols, J. H. Boudurant and J. L. Galloway, Family Incomes and Land Utilization in Knox County, Kentucky Ag. Exp. Sta. Bul. 375, Nov., 1934, p. 159.

¹⁷ Hammer and Muntzel, Land Use and Resettlement, Journal of Farm Economics, Vol. 17, No. 3, p. 417

¹⁸ W. D. Nichols, J. H. Boudurant and J. L. Galloway, Family Incomes and Land Utilization in Knox County, Kentucky Agri. Exp. Sta. Bul. 375, Nov., 1937, p. 159.

The same thing was apparent in Louisiana where a study revealed that the farm population in the hilly, cut-over sections of the state was increasing with "remarkable speed" while the sugar bowl and cotton delta areas contained fewer inhabitants in 1930 than 1890.¹⁹

Table 6

Labor Requirements to Produce Corn on Bottom and Hillside Land, Knox County, Kentucky.

Item	Bottom Land	Hillside Land
Number of Farms	32	82
Total Acres	237.5	504.0
Days man labor per acre	7.4	16.2
Bushels per acre	24.5	19.4
Bushels produced per day of man labor	3.3	1.2

Source: W. D. Nichols, J. H. Boudurant and J. L. Galloway, Family Incomes and Land Utilization in Knox County, Kentucky Agri. Exp. Sta. Bul. 375, Nov., 1937, p. 159

Among the reasons advanced in the above mentioned studies for such a concentration of population upon poorer land was the fact that much of the land in such areas was broken and hilly and unsuitable for cultivation by modern large scale machinery, with the result that greater hand labor became necessary and that consequently the operator had to spend a greater amount of his time caring for a hillside field than he would for a level field of the same area. This is clearly brought out in Table 6.

¹⁹T. Lynn Smith, "The Social Effects of Land Division in Relationship to a Program of Land Utilization," Journal of Farm Economics, Vol. 17, No. 4., Nov., 1935, p. 702.

There is reason to believe that such a factor might have been important in contributing to the greater density of the farm population of Muskogee county over that of Garfield county. As was pointed out in the description of the county previously given, a portion of the county was included in the physiographic division known as the Ozark Uplift. A writer in a previous study in this county gave the roughness of the terrain as a reason to believe the production of crops would continue to be confined to relatively small farms.²⁰ However, the greater portion of the county was included in either the Prairie Plains Province or the bottoms and terraces of the major rivers, and these are mostly of such a level nature as to offer no insurmountable difficulties to larger scale cultivation. Although a potent factor, there are indications that other factors than topography may possibly be important in determining why the farms in Muskogee county are so small. It is the purpose of this paper to determine if such factors do exist, and if so, to seek their nature.

STATEMENT OF THE PROBLEM

This, then, is the nature of the problem. Facts which have so far been disclosed reveal a wide difference in the size of income and average size of farms in Muskogee and Garfield counties. They have also revealed that land in Garfield county is much more extensively farmed, although the land is more

²⁰Don Marshall, Type of Farming Development in Wagoner, Muskogee, and McIntosh Counties, Unpublished Thesis, Oklahoma A. and M. College, 1938, p. 38.

fertile. To uncover the factors affecting the size of the farms in Muskogee county and to determine if there were present in such factors elements which might have a bearing on the smaller average income or contribute to maladjustments in the county is a task which will fill the remaining pages of this paper. It is a well known fact that maladjustments between land and population exist in other regions of the United States. Are the causes of the Muskogee county problem the same as those prevailing in such widespread regions, or does it have a different set of factors unique only to its intimate locality? On the other hand, does such a problem of maladjustment really exist? Might not the size of farms and intensity actually be developing to the farmer's best economic interests? It is hoped that the succeeding pages may throw some light upon such questions.

REASONS FOR THE PROBLEM

Historical: The historical setting is here treated as one of the independent factors determining size of farms in Muskogee county, and in reality it is probably one of the important ones. Nevertheless, it is also intertwined with several other possible factors which have their roots in the historical scene. Strictly speaking, all aspects of the problem are in a manner historical in nature. Because of this and because a historical perspective will aid in giving a wider understanding and background to the problem as a whole, this aspect of the problem will be considered first and in considerable detail.

Muskogee county and Eastern Oklahoma (including all that territory which was formerly included in the Indian Territory) has a record unique in land colonization history. No other portion of the United States was ever opened to white settlement in a similar manner. It is well known that this land was set aside as a home of the Indian tribes for a number of years with the intention that all whites be excluded, but soon after the arrival of the Indians, whites began to filter in and continued to come in such increasing numbers (even though their presence was forbidden by law) that by statehood in 1907 the old Indian Territory was virtually a white man's country. A number of questions come to mind concerning the effect of this method of settlement upon the agricultural development of the area. Did the Indians have any influence upon development of agricultural practices and techniques in the territory? How did the whites gain possession of the land from the Indians and what factors determined the size of the holdings which they secured. Did this have any relation to a prevailing belief that the area is overpopulated? Did the fact that this area is rich in mineral resources have any relation to its agricultural development? Did the method of settlement have any relation to the present high percentage of tenancy in the area?

The larger portion of Muskogee county was formed from the old Creek Indian Nation. A smaller portion, comprising the strip east and northeast of the Arkansas River, was derived from the Cherokee Nation. These two tribes formerly lived in

that portion of the United States which now includes most of Alabama, Georgia, Tennessee and western North and South Carolina. They were removed by the force of United States troops to a new home in what is now Eastern Oklahoma, because of economic expediency the whites coveted the ground upon which they resided.

A delegation appointed in 1825 selected the land which the Creeks were to receive as a "tract running westward between the Arkansas and the Canadian Rivers with acreage equal to the land in Georgia and Alabama that the Creeks were to give up."²¹ The area apportioned to the Cherokees was the land lying between the Creek land and the present location of the southern boundary of the State of Kansas.

In the new treaty of removal between the Indian tribes and the United States government, it was stated that this land was to be kept free from all white intrusion and was to be occupied by the Indians as a home forever, or, as expressly stated in the treaty, "as long as the grass grows and the water runs."²² This was the beginning of a new Indian policy by the United States government. In order to prevent future wars between the whites and these tribes, it concluded to try a "gigantic experiment" and remove and isolate them from the white settlements. "It formulated the plan to remove the Indians. . . to this new territory where it was anticipated they would take root and flourish, forever free from white intrusion. This territory was the 'ultima thule' of the United States, its most extreme western possession available for settlement. It

²¹Dora Ann Stewart, The Development of Oklahoma Territory, p. 186-7.

²²Clarence Douglas, A History of Tulsa, Oklahoma and Surrounding Territory, p. 25.

was thought that it would be many decades before the whites would encroach upon the territory or come in serious contact with its borders; and that in the distant future, by the time the white settlement had reached it, the Indians would be so far advanced in arts of civilization. . . .that they would be amply able to take care of themselves and the territory would then be erected into a great and homogeneous Indian state of American Union."²³

The formulators of the "gigantic experiment" overlooked two things. They overlooked the speed with which the white settlers would reach the Indian Territory and the rapacity with which they would attempt to wrest the land from the Indian's grasp; and they overlooked the slowness with which the great body of Indians would adopt white man's customs and thus be able to protect themselves from the grasp of land seeking whites.

It is unfortunate that there is no, or at most very little, material directly relating to only Muskogee county at this early date. Muskogee county did not come into being until statehood in 1907. Consequently most of the material available concerns either the Creek nation as a whole or the Cherokee nation as a whole. However, even though this is true, the material is still applicable to Muskogee county. Most of this area is largely homogeneous in its agricultural aspects, and many of the facts pertaining to Muskogee county, which were brought out at the beginning of this paper, are

²³Ibid., p. 29.

applicable to the rest of the area as well. The problem is not confined to Muskogee county alone, but also to its surrounding territory.

In conformity with its announced policy of keeping the Indian Territory a home for the Indians forever, Congress passed what became known as the Intercourse Act of 1834 which forbade white settlement in the Indian country and sought to keep the whites from entering the Indian Territory.²⁴ This act was nominally in force until the Indian land was allotted at the end of the century. For about 50 years the government seemed to be sincere in attempting to carry out this policy. Only certain classes of white people such as preachers, teachers, agents of the government and attaches of the army were allowed in the territory. All others were excluded and had no rights there except by permit of the Indians themselves. Each permit was in the nature of a license allowing its holder to live and work in the territory of the tribe granting the license. A white man holding such a license had but few privileges, and what he did was simply by suffrance. He could not legally own or occupy land or houses and had no share in the government. He was subjected to ejection at any time on complaint made to the authorities and heavy penalties were imposed upon him if he returned to the Territory. Trade and intercourse with the Indians were regulated by law and were confined to bonded traders.²⁵

²⁴Douglas, op. cit., p. 29-30.

²⁵Ibid., 30-31.

A highly important factor here was the type of white immigrants who began coming into the Indian country, and the purpose for which they came. For the most part they were not permanent settlers who entered with the intention of making that country their home and consequently were not as interested in quickly developing the country and in establishing schools, good government, etc., as were the settlers coming into Oklahoma Territory to the west later on. They were largely a transitory class, intent either upon escaping from peace officers because of some wrong doing in the states, or upon some nefarious scheme of wringing wealth from the Indians, or from Indian lands.²⁶ It has been pointed out previously that the United States government sought to bar whites from entering the Territory, and that all who entered save government officials and missionaries had to secure permits from the Indian tribes. It is true that many of the traders did secure such permits, but many others dispensed with such formality. The larger area of the land, sparsity of settlement, and inertia of the Indians in reporting intruders made this possible. But even in cases when the traders and settlers did enter the territory legally and by permit, they could take no active interest in developing the country or in making that their permanent home because of their uncertainty of tenure and possibility of ejection at any time, and because they had no voice whatever in the government.

²⁶"Some were criminals, hoping to hide from the law. Some were seeking what they could find and careless what. Others were traders, founding trading posts and towns, selling to Indians." Dale and Rader, Readings in Oklahoma History, p. 740.

Thus it was that a class of white settlers arose who were unique in land colonization history. The spectacle of pioneers rapidly building homes and improving their land, of organizing schools, churches and local governments as soon as circumstances permitted, a spectacle so common with the settlement of other areas of the United States public domain including Oklahoma Territory, was lacking here. Instead there arose an unstable, transitory class which was intent mostly upon exploiting as much as possible the land and the people living upon it. This situation changed somewhat after the Civil War when the great horde of white settlers began moving in, when large cities developed, and when efforts to keep the whites out ceased to be made. Then whites were given a voice in some local governments, and their status developed a greater aspect of security. Nevertheless the type and status of white settlers entering the Territory at that time was highly significant as a factor in its agricultural development.

All lands were owned in common by the Indian citizens. Ownership of land in fee simple did not exist. Each tribal member, whether by descent or adoption, had the privilege to select and appropriate to his own use a site for a home and also as much land as he could farm. Under such a system it would seem natural that the more intelligent and industrious would secure the best land and develop the largest holdings while the more indolent or ignorant would segregate into less desirable regions and develop smaller holdings. That is exactly what developed. Many of the Indians containing white

blood and some of the more industrious full bloods developed rather sizeable plantations; and the rest of the Indians, while they had the same opportunity to secure and develop good land as the others, seemed to shun the activity and contact with whites which such a life would necessitate and retreated into the hills and more remote regions where they usually had a small log cabin, perhaps a few head of live stock and a few acres of corn and depended to a large extent on fish and game.

Indian agriculture was for the most part self-sufficing. Most Indian families had a garden, a small patch of corn, raised enough cotton to supply their own clothing, and had some livestock grazing on the unoccupied lands. This they supplemented with hunting and fishing. However, two important aspects of commercial farming did develop--namely, the livestock industry, and the large plantations. Livestock was probably the most important agricultural enterprise in the Indian Territory at that time. Vast herds roamed the free, unoccupied lands. They could be raised without effort and they found a ready market. Large buyers from outside the Territory came to supply their needs, and thus the Territory was beginning to attract the attention of the whites because of its agricultural possibilities.

Most of the larger plantations as well as many of the smaller holdings were dependent upon slave labor. Many of Indians had become slave owners in their old home east of the Mississippi, and when they moved to Indian Territory they brought their slaves with them.

The Civil War was tragic to the Indians. Part of them joined the Union forces and part of them the Rebel forces, thus intensifying the bitterness and resulting in pillage and devastation among them. Peace among the tribes and with the United States government came with the signing of the treaty of 1866. In this treaty were, among other things, three highly significant provisions. They were: first, abolishment of slavery. The Creeks and Cherokees granted their former slaves full tribal citizenship rights, including lands and annuities. Second, the United States government was given the right to permit the construction of railway lines across tribal reservations. Third, the Creeks ceded to the United States the western half of its reservation, while the Cherokees in effect relinquished claim to their lands lying west of the 96th Meridian.²⁷ These three provisions eventually changed the whole agricultural system of the Indians and opened the way for allotment of lands and legal settlement of whites in the Territory. The full effects of the provision will be traced in later sections, but here it might be well to point out the immediate implications. The territory occupied by the two Indian tribes was cut in half. This meant that the Indian families would be more closely confined and that there would be less land upon which to graze livestock. It also set up two large unoccupied areas adjacent to the land occupied by the Indians which were soon to attract the attention of land hungry whites. The abolishment of slavery meant that

²⁷Thoburn, A History of Oklahoma, p. 65.

that the Indians who had held slaves would either have to reduce the size of their holdings or find some other method of securing labor. The coming of the railroads provided an outlet for agricultural products and paved the way for commercial farming. It also paved the way for the entry of whites who were soon to pour into the country in large numbers.

Some idea of the status and development of agriculture in the Indian Territory after the Civil War may be glimpsed in Table 7, the material in it having been gathered from the reports of the Indian commissioners for the years concerned. As the Indian agents were changed every few years, and as the figures given were but estimates by the agents, the data may not be any too reliable; but they should give some rough knowledge of the extent of agriculture at the time of its great increase during the period following the Civil War.

The population of the Creek Indians remained about stationary while the population of the Cherokees increased gradually, probably owing to the greater infusion of white blood. That the number of acres in cultivation in 1866 was so low was due to disruption caused by the Civil War. The number of cultivated acres rose rather rapidly to 1885, though the amount still was relatively small at that time, the average being around 30 acres per family. This included only that land which was cultivated directly by citizens of the Indian tribes, as the amount of land leased to whites and non-citizens was not included in the figures.

Cattle raising occupied the dominant position in the Territory during this period. A few large holdings probably accounted for the greatest portion of the cattle, although according to the reports of the Indian agents, nearly all families seemed to have owned a few head of livestock. Table 7 does not include the number of cattle owned by outside stockmen who had leased Indian land, of which there seems to have been a considerable number. Corn was the major cultivated crop with oats, barley and wheat occupying secondary roles. The abundance of native grasses furnished feed for livestock the year around, and this made hay cutting largely unnecessary. Taken as a whole, agriculture seems to have been gradually rising from a subsistence basis with livestock in the leading role, and corn and cotton assuming positions of ever increasing importance.

Cotton assumed a place of importance in the Territory soon after the Civil War. Before the war, most farmers had grown only enough cotton to supply their families with clothing. In 1871, the cotton crop of the Territory was about 270,000 pounds. In 1878, which was soon after the arrival of the railroads, the Territory raised about 1,200,000 pounds of cotton. In 1871, there were 204,677 acres of cotton in cultivation. In 1878, there were 178,000 acres of cotton in cultivation in Cherokee nation alone.²⁸ Material was not available of the amount of cotton in cultivation in Creek nation alone in 1878,

²⁸C. P. Adair, "Indian Territory in 1878," Chronicles of Oklahoma, Vol. 4, No. 3, p. 266.

Table 7

Agriculture Development in the Cherokee and
Creek Nations, 1866-1884.

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Source: Report of the Commissioners of Indian Affairs for the Years 1866, 1876, and 1884,
Washington Printing Office, Washington, D. C.

* Data not available.

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but it must have increased at least proportionately, if not a leader over the other Indian nations.

There were three classes of people in the Indian Territory at this time, the full bloods, the mixed bloods and intermarried whites, and the whites. They were generally poor, but the degree of their poverty varied. The size of their farms varied from 5 to 150 acres and were, for the most part, located in the more hilly and inaccessible regions. Most of them raised only enough grain and vegetables to supply their own needs. Their cattle grazed on the range and were branded or marked at intervals. Most of their houses were made of logs. Many full bloods were lazy and depended upon their neighbors to support them. All full bloods were quite neighborly and food was divided freely as long as there was any to divide.²⁹

The second class, composed of the mixed bloods and intermarried whites was much more prosperous than the full bloods, though smaller in number. Their farms ranged in size from 50 to 500 acres and their farms and living conditions similar to any rural community of that time.³⁰

A third class of people in the Indian Territory at this time (1865-1890) was composed of the whites. These never received citizenship and had to obtain permits from the Indian governments as long as they remained in the Indian country. Whites began pouring into the Territory in large numbers soon

²⁹V. A. Travis, "Life in the Cherokee Nation," Chronicles of Oklahoma, Vol. 4, No. 1, p. 20.

³⁰Ibid, p. 21.

after the Civil War, and the migration increased to such an extent that by 1890, the whites far outnumbered the Indians. One might wonder why the Indians permitted the entrance of the whites, at times even encouraged it, when they knew that the presence of the whites would eventually mean the end of Indian control over the land, and that the whites would gradually seize control of the country. A major factor was the apathy of the Indians and a general indifference or resignation to the whole affair. Also a number of whites gained permits to enter by fraud, and once settled were impossible to dislodge.

But there were more active reasons, and one of the major ones was the need of the Indians for more labor and for men to cultivate their land. This need arose from several causes. In the first place, the abolition of slavery had deprived many of the plantation owners and large land holders of their sources of labor. It will be remembered that the Creeks and Cherokees had granted their Negroes full citizenship privileges and that such freedmen had the right to inclose and cultivate their own land. A second and far more potent cause arose from the changes brought about in the Territory by the coming of the railroad.³¹ It opened an outlet for agricultural products and made possible the change of agriculture from a largely

³¹"The coming of the first railroad did more than all else to settle and build the Indian Territory according to the white man's customs and ideas." Ohland, "Reconstruction in the Creek Nation," Chronicles of Oklahoma, Vol. 9, No. 2, p. 174.

subsistence to a commercial basis. A direct result of this was the large increase in cotton culture, which has already been noted. To put in cultivation the larger fields and adopt the improved methods of cultivation which it was possible and profitable to inaugurate, a larger number of laborers was necessary who were not only willing to work but who knew how to use the latest methods and machinery. Consequently, some of the leading Indian land holders found it to their interest to permit the entrance of white laborers. Soon after, the Indians found it to their advantage to lease land to white laborers for a period of years, because they put the land into cultivation and made other improvements.³² This enabled many to increase the size of their farms, or provided improved places for the young people just starting out in life.³³ In 1886, the Indian agent at Muskogee wrote that the Indians were "using white laborers by the thousands and availing themselves of their landed rights. The fields on the prairie are

³²"The culture of cotton on a commercial scale was probably largely responsible for this white tenant immigration." Thoburn, A Standard History of Oklahoma, p. 619.

³³"A large number of persons in the Cherokee nation...are working under leases, though the lease is forbidden by law...The method is this: The Indian citizen will agree to 'employ' the United States citizen for a period of from 5 to 10 years, generally about 5 years, secure his permits, and locate him on some portion of the unoccupied public domain. Then the U.S. citizen is to break out, fence, and erect houses thereon, and have all the products of the place for the period of years agreed upon. At the end of that time the place with its improvements is delivered to the Indian. In this way farms are made for Indian children by the time they reach maturity, and, while unlawful to lease, the results are generally not to be condemned." (Leases were lawful in Creek Nation.) Report of the Commissioner of Indian Affairs, 1887, p. 112.

getting numerous, larger and are cultivated with improved machinery."³⁴ Another reason some Indians desired or at least permitted whites to settle upon their land lay in their laziness and indifference to work. They preferred a cash income or rent, however meager, to toiling in the field themselves. Many of the full bloods were also exceedingly ignorant and were easily prevailed upon by the whites to lease their land.

It must not be supposed that all entering whites legally obtained permits. The Indians tried to enforce this rule at first, but the great flood of whites soon made it almost impossible. Many whites settled upon land without invitation, and once settled were exceedingly difficult to dislodge.³⁵ Many swore falsely that they had Indian blood and tried to get land in that way. Many whites who saw white tenants farming land by permit, saw no reason why they should not seize idle land next to it whether they had permits or not.³⁶

The results of such a migration accelerated an already apparent tendency. The more enterprising Indian citizens together with the whites gradually gained control of the most desirable land, gradually edging the original settlers into the hills and more secluded regions. Many were evidently slow to realize what was happening for as late as 1887, Indian agent Robert L. Owen wrote that there was "no present danger of such

³⁴Dale and Rader, op. cit., p. 614.

³⁵Ibid., 615.

³⁶"A traveler in Indian Territory wrote in 1872; 'The herder, hunter or explorer from Kansas or Texas rides through beautiful tract and when he asks who owns it the only answer is 'the Injuns, its Injun land! that is in his estimation nobody's land if he can by force of fraud get a foothold' Thoburn, A Standard History of Oklahoma, p. 472.

monopoly of farming land as would oppress the poor."³⁷ It was the final realization of such a danger which caused many intelligent Indian citizens to assent to, and even advocate, individual allotment of Indian lands in the next decade.

The whites in Indian Territory at this time were occupying a position which was rapidly becoming intolerable. The Indian population by 1890 had become a small minority of the total population of the five civilized tribes. But the tribes owned all the lands and the Indians had all the political authority. The non-citizen white men could not own or legally hold any land, not even a town lot in the towns and cities where they were rapidly gathering. The tribal schools were not open to the white children. The white men were governed, so far as government was provided for them, by officers sent from other states, in whose appointment they had no voice. They had none of the benefits of government which other communities shared and had no way in which they could secure them.³⁸ In 1890 it was estimated that there were 140,000 white persons in Indian Territory out of a total population of 210,00.³⁹

The system of land tenure proved vicious in many ways. It enabled the enterprising and forehanded citizens to use more than his share of the land, and to take up and occupy by means of white tenants large tracts and many farms of the best agricultural lands. Great bodies of grass lands were likewise

³⁷Dale and Rader, op. cit., p. 614

³⁸Harlow, Oklahoma--A History, p. 68.

³⁹Ohland, op. cit., p. 213.

enclosed with wire fence and by one subterfuge or another filled annually with Texas cattle. This was good for the few, but it was an unequal use of common property and failed to benefit the mass of citizens. It also discouraged good farming and good husbandry. The renter had no interest in the land. The improvements he made were of the most temporary nature, and the land was tilled in the manner best calculated to get the most out of it for the present.⁴⁰ As the citizen could not own the land but only the improvements, it could be said that nothing was absolutely a fixture. Anything might be removed at the owner's will. Hence, there was practically no real estate or no conservative landed interest such as generally became true of other newly settled portions of the United States. To illustrate the state of things, the Dawes Commission found that 61 citizens had absolute control of over 1,237,000 acres of a total acreage of 3,040,000 acres in the Creek nation.⁴¹

It had been foreseen for some time before the passage of the Curtis Act that allotment of Indian lands was inevitable. The treaty by which the Indians were granted their lands in Indian Territory back in 1832 had stated that this was to be the exclusive home of the Indians "as long as the grass grows and the water runs," but the more intelligent Indians soon saw that this was not to be. Some even openly advocated allotment and entrance of the whites, as they believed the Indians could

⁴⁰Douglas, op. cit., p. 33.

⁴¹Loren N. Brown, "The Dawes Commission," Chronicles of Okla., Vol. 9, No. 1, p. 74.

gain more from it than from enforced isolation. The less progressive full bloods, however, bitterly opposed anything which hinted at such a thing. "Death (was) the speedy fate of any Indian of any tribe who dared to accede to approaches on the part of the white man tending towards the sale of lands."⁴² The anomalous condition of the whites, and the evils arising from the land tenure system made a change imperative. Two powerful interests also worked for a change in land ownership. The whites had long been desiring to gain control of the country, in name as well as in fact and were raising a clamor which could not fail to be heard in Washington. The railroads also desired allotment, for an increased population would mean increased business for them.

The need for a change became so imperative that Congress created the Dawes Commission in 1893 to treat with the Indians. For the next 4 years, negotiations were constantly in progress between the commission and the tribes for the purpose of inducing the Indians of these tribes to divide their lands and change to the system of private ownership. In 1897, a majority of the Indians finally agreed to the proposition put by the Dawes Commission, and the next year Congress passed the Curtis Act, which provided for abolition of tribal courts and preparation of a roll of Indian citizens with allotments to each under a survey and appraisal to be made by the Dawes Commission.⁴³

⁴²Dale and Rader, op. cit., p. 110.

⁴³Glasscock, Then Came Oil, p. 110.

The Dawes Commission was given the task of allotting the Indian lands. For this reason the land had to be surveyed and an appraised value given to each quarter section. Probably the greatest task of the Commission was to make out a roll of all citizens who had sufficient Indian blood to entitle them to allotment.

The Creek agreement specified that their lands should be appraised at a fair cost value regardless of improvements, and each man, woman, and child, including freedmen, was permitted to select 160 acres of any grade of land. The land was appraised at from 25¢ to \$6.50 per acre according to quality. Those who selected 160 acres of the best land were supposed to have allotments worth \$1,040. In order to equalize the value of the allotments, it was further provided that any citizen whose quarter section was of a lower grade would be entitled to receive the difference between the appraised value of his land and \$1,040 in cash from Creek funds. Each one receiving allotment had to select 40 acres of it as a homestead and was issued a separate deed for it. The homestead was declared to be inalienable during the lifetime of the allottee. None of the land allotted could be sold or encumbered by the allottee or his heirs before five years after allotment. If the citizen had improvements on any land, the 40 acres homestead was made to include them if possible. The agreement with the Cherokee Indians was similar to the agreement with the Creeks, with the exception that the standard size of their allotment was 110

acres instead of 160 acres.⁴⁴ If any citizen at the time of allotment was cultivating land in excess of the standard allotment, he had to select from it allotments for himself and his family. If he had improvements on the land in excess of this, the improvements were appraised by the appraisement committee, and the citizen selecting the lands was supposed to pay the owner an amount equal to the appraised value, and the "same shall be a lien upon the rents and profits of the land until paid."⁴⁵ According to the Curtis Act all the residue of lands not allotted was to be used for the purpose of equalizing allotments.

All known coal, asphalt, oil and other mineral lands were to be reserved from allotment. It was provided that such land was to be leased by the tribal government under the supervision of the Secretary of the Interior and the proceeds revert to the tribal funds. It is to be remembered that land known to bear oil in Indian Territory at this time was negligible and that consequently most of the oil bearing land was allotted to individuals. The Curtis Act was arranged for the incorporation and survey of towns, (Muskogee had already reached a population of ten to twelve thousand) gave all residents of towns the right to vote, authorized the establishment of free

⁴⁴Report of the Commission to the Five Civilized Tribes, Annual Report of the Department of Interior, 1903, p. 35-40.

⁴⁵Ibid., p. 81.

public schools and otherwise rectified the deplorable position of the whites in the Territory.

The task of the Dawes Commission was that of surveying, appraising, and dividing the land according to value among the rightful heirs. First, a roll was made showing the name, age, sex and degree of Indian blood of each applicant. Hundreds of white people tried to prove that they had Indian blood. There were 200,000 claimants but only 90,000 were allotted. Allotment of the lands induced a host of grafters to the Indian Territory in the hope of swindling the red men out of their every possession. All sorts of fraudulent schemes were concocted to obtain the valuable oil, coal, gas, asphalt and farming and timber tracts of the Five Civilized Tribes. In addition to enrolling all of the Indians, the Commission had to enroll all of the freedmen of each tribe. The surviving freedmen and all decedents of freedmen were to be allotted lands as well as the Indians.

The work of allotting the land to Indians began about 1897 and was still not quite completed fifteen years later. According to the original law the 40 acre homestead which the allottee had to select from the 160 acre allotment which he received (or 110 acre allotment in the Cherokee Nation) could not be sold or encumbered until 21 years after the date on which the deed was issued. None of the land allotted could be sold or encumbered by the allottee or his heirs before five years

after allotment.⁴⁷ Leases for agricultural purposes might be made in the Creek Nation for periods not in excess of five years.

An act was passed in 1904 changing this rule somewhat. It removed all the restrictions upon the alienation of lands of all allottees of either of the Five Civilized Tribes who were not of Indian blood, except minors and except as to homesteads. Allottees included in the category of citizens of the Five Civilized Tribes not of Indian blood were all freedmen and their dependents, as well as intermarried whites. It also provided that all restrictions upon the alienation of all other allottees of the tribes except minors and except as to homesteads might, with the approval of the Secretary of the Interior, be removed under such rules and regulations as the Secretary of the Interior might prescribe upon application to the United States Indian agent at the Union agency, (Muskogee), if the agent was satisfied upon a full investigation of each individual case that such removal of restrictions was for the best interests of the allottees. By the end of the fiscal year 1904, the number of tracts sold under this section of the new law was 465, totaling 40,406 acres. The average acreage of such tracts was 87.1 acres.⁴⁸ The number of tracts sold during the fiscal year 1905 was 162 totaling 13,662 acres with an average of 84.3 acres.⁴⁹

⁴⁷Annual Report of the Secretary of the Interior, Report of the Commission to the Five Civilized Tribes, p. 38. 1903.

⁴⁸Annual Report of the Secretary of Interior, Report of the Indian Agent of the Union agency, 1904, p. 263.

⁴⁹Report of the Commissioner of Indian Affairs, 1906, p. 117.

A new law pertaining to the alienation of Indian lands was passed in May, 1908. This act removed the restriction from all citizens of the Five Civilized Tribes who were not of Indian blood, and all citizens of less than one-half Indian blood, including minors, and including homesteads. Citizens of one-half Indian blood and less than three-fourths Indian blood, including minors, could sell their surplus allotments without the approval of the Secretary of Interior but their homestead allotments were still restricted. The entire allotment of citizens of three-fourths or more Indian blood was restricted. The act provided, however, that all adult citizens whose land was restricted could make application to the Secretary of Interior for the removal of their restrictions. When a citizen made application for the removal of the restrictions, the Secretary of Interior approved it unconditionally when he was satisfied the citizen was fully competent to dispose of the land and handle the proceeds to his best advantage. If the Secretary of Interior thought the citizen was not competent, the sale might still be made conditionally, i.e., the Indian agent supervised the handling of the sale and disposition of proceeds.⁵⁰ The results of this act are summarized in Table 8. In it are also given the number of acres and per cent in both Creek and Cherokee Nations which were restricted and unrestricted at the end of 1909. Thus it is seen that by 1909 over half of the land in the Creek Nation and nearly three-fourths of the land in Cherokee Nation was unrestricted.

⁵⁰Report of the Commissioner of Indian Affairs, 1909, p. 408-10.

Table 8

Status of Restricted and Unrestricted Lands
in Creek and Cherokee Nations at end of 1909.

	Creek Nation			Cherokee Nation		
	Number of			Number of		
Total	Acres	Per	Total	acres	Per	
Area	Restricted or	Cent	Area	Restricted or	Cent	
(Acres)	Unrestricted		(Acres)	Unrestricted		
Restricted Lands: Allotments of full bloods and mixed bloods of more than $\frac{3}{4}$ and homesteads of mixed bloods from $\frac{1}{2}$ to $\frac{3}{4}$.	3,079,094	1,230,000	41.1	4,020,067	1,190,000	25.4
Unrestricted Lands: Allotments of mixed bloods less than $\frac{1}{2}$ and citizens of no Indian blood and surplus of mixed bloods from $\frac{1}{2}$ to $\frac{3}{4}$.	3,079,094	1,760,000	58.8	4,020,067	3,477,000	74.6

Source: Report of the Commissioner of Indian Affairs, Washington Printing Office, 1909, p. 375.

By 1911, of the 101,287 Indians who were still under superintendency of the Indian agent for the Five Civilized Tribes, 64,326 had received patents in fee for their entire allotment and had disposed of all their inherited land or had not fallen heir to any. The remaining 36,961 still held land under federal jurisdiction, although it is likely that a number of these had already disposed of some of their surplus land.⁵¹ No record could be found in the reports of the Indian Commissioner concerning the size or number of tracts sold of that land which had been declared alienable and which could be sold without the supervision of the Secretary of the Interior. There were data available, however, for those sales which had to be made with the approval of the Secretary of the Interior (ie., three-fourth bloods or more or incompetents), and these data were compiled into Table 9, which shows the number of tracts and their average size for the years 1909-14. The average size of the 3,823 tracts sold was only 75.3 acres. As a rule, Creeks allottees of full blood were allowed to sell only 80 acres of alienable land.⁵²

Surplus land remaining after allotments had been made was sold and the proceeds used to equalize allotments. Nearly all of that part of Muskogee County which lay in the Creek nation was allotted to Indian citizens. However, of that part of the county which lay in the Cherokee nation, there was a

⁵¹Report of the Commissioner of Indian Affairs, 1911, p. 206.

⁵²Report of the Commissioner of Indian Affairs, 1906, p. 118.

Table 9

Number and Average Size of Tracts Sold, and Total
Acreage and Consideration Received for the Sale of
Restricted Indian Lands for the Years, 1909-1914.

Fiscal Year Ending June 30,	Ave. Size of Tracts (Acres)	Number of Tracts Sold	Number of Acres Sold	Consideration Received (Total)	Average Consider- ation Per Acre
1909	72.8	150	10,924	\$149,423	\$13.68
1910	84.5	629	53,192	566,666	10.65
1911	77.8	871	67,790	674,730	9.95
1912	75.9	504	38,277	315,132	8.23
1913	70.5	735	51,817	502,406	9.70
1914	70.7	934	66,104	636,042	9.62
Grand Total	75.3	3,823	288,104	\$2,844,299	\$10.01

Source: Report of the Commissioner of Indian Affairs, 1914, p. 279.

larger proportion which was unallotted. The amount of such unallotted land sold, the proceeds and the average size of tracts were as follows:

Table 10
Unallotted Land Sales in Muskogee County

	In Creek Nation	In Cherokee Nation
Tracts (Number)	8	319
Area (Acres)	18.5	5,153
Ave. Size of Tracts Sold	2.3	16.1
Appraisement	\$ 141	\$20,248
Sale Price	274	34,110
Appraisement Per Acre	7.63	4.38
Sale Price Per Acre	14.81	6.58

Source: Report of the Commissioner of Indian Affairs, 1911, p. 400.

The extremely small size of the tracts sold was probably due to the fact that they were odd corners, widely distributed, which for some reason had been unable to be tucked in any allotment.

Although the allotment of Indian lands had not been quite completed fifteen years after the Dawes Commission started the task, by far the largest part of the land had been disposed of by 1904. At the end of 1904, all but 604,000 acres of the 3,063,774 acres of the allottable land in the Creek Nation had been disposed of.⁵³ By the end of 1909, the amount of unallotted land had been reduced to 68,000 acres in the Creek Nation.⁵⁴

⁵³Annual Report of the Secretary of the Interior, Report of the Commission to the Five Civilized Tribes, 1904, p. 27.

⁵⁴Report of the Commissioner of Indian Affairs, 1909, p. 95.

Most of that remaining was surplus land and was sold during the next two years. The amount of such land sold in Muskogee County is shown in Table 10. Land in the Cherokee Nation was allotted at about the same rate.

All the material so far uncovered seems to point to the conclusion that the land in the old Indian Territory was disposed of to whites in tracts of considerably less than 160 acres. For the sales of that land which lay in the unrestricted class there is no record, though it is not likely that a large proportion of it was disposed of in the full 160 acre tracts. The Indian agents whenever possible tried to encourage the sale of land in tracts of less than 80 acres, for they wished the allottees to keep a small amount of land to live upon in case of destitution. Also, none of the restrictions was lifted on the 40 acre homestead until after 1908, so that all the land sold to whites before that date had to be in tracts of not more than 120 acres. It is possible that some white buyers bought several such small tracts and thus made large farms, but that the number of such farmers was probably not large is seen by reference to Table 12. Also, most of the buyers of Indian lands were former white tenants of the Indians and did not have the means to buy large tracts of land. Another hindrance to the building up of large farms was the fact that the small tracts offered for sale were often widely scattered.

The purpose of the restrictions thrown around the sale of the lands of the Indians was to safeguard and protect the

Indians, and to prevent the land from passing into the hands of the unscrupulous whites. An expressed intention of the government policy was to aid the Indians in developing their farms and adopting white man's ways of farming. To help fulfill this object, they kept two main principles in mind when making the rules regulating the sale and lease of Indian lands. The first arose from a belief that if actual white farmers were settled among the Indians, they would be a source of inspiration to them, and they would naturally imitate and follow their neighbors. A farmer who purchased 40, 80, or 120 acres would do so with the intention of improving it and making it his home. It was hoped that such farmers would be interested in the construction and maintenance of good roads and schools, and would see that their lands were properly fenced and cultivated, and that the Indians would follow their example. A second object arose from the belief that the proceeds from the sale of 40, 80, or 120 acres from the allotment would give the Indian farmer the means to improve the rest of his allotment in the desired manner. Many of the more progressive families were desirous of disposing of the surplus lands in order that they might build houses, dig wells, plant orchards and generally improve their 40 acre homesteads.⁵⁵ Another manner of getting the means to improve their homesteads lay in leasing part of their allotments.

⁵⁵Annual Report of the Secretary of Interior, Report of the Union Agent, 1903, p. 246-248.

It was with these objects in mind that the rules regulating sale and lease of Indian lands were made. These rules have previously been given on page 45. That they did not work out in the manner hoped for was soon evident to the more observing. The Indians were not only ignorant and easily imposed upon, but lazy as well, and eager to lease their land to anyone who would pay them a few dollars for it. Many sold their allotments as soon as they were permitted to do so and often for much too low a consideration. Especially was this true of some Creek freedmen and the full blood Indians. As early as 1903, the Union agent wrote:

"(The Indians) have been induced to enter into contracts of leases for long terms in flagrant violation of the letter and spirit for the (Creek) agreement. A few such leases have been submitted to this office by the Indian allottees. An examination discloses that the leased lands were unimproved and were leased for periods ranging from 5 to 7 years at a rate of 25¢ per acre per annum, when fair rental value would have been from \$1 to \$3 per acre per annum...The Creek agreement proves that allotments may be leased for agriculture purposes for a period of 5 years. There is nothing indicated in the agreement upon what conditions the allottee can rent his land, except for a period of 5 years. The real estate agent has heretofore made his own conditions agreeing to pay the allottee 25¢ per acre per annum for a period of 5 years, and a clause is usually inserted in the lease providing for the removal by the lessee of all improvements placed on the land at the expiration of the term of the lease. It is plain, therefore, that the allottee at the end of 5 years will be in a worse shape than he is today.⁵⁶

This problem is again discussed by the Union agent in the annual report of 1914. What he says is so pertinent that it will be quoted directly:

⁵⁶Ibid., p. 247.

The provisions of the Act of Congress approved May 27, 1908, which allows Indians of the restricted class to lease their surplus allotments for a period not to exceed 5 years, and their homesteads for a period not to exceed one year (without supervision) is, in fact, the most demoralizing of created obstacles met with in the supervision of the affairs of the Indians of the 5 civilized tribes. Under this provision, Indians lease all of their allotments of the family that have any value for agriculture... purposes for considerations that, as a rule, are from 10% to 50% of a fair value. The sole business of many lessees is the taking of leases on this class of land and sub-letting them to tenant farmers for the real value.

The common practice is when the first year of a 5 year lease has elapsed to take up a second 5 year lease, and when the second year has elapsed, the performance is repeated. This practice is especially noticeable in the case of the aged or infirm Indians, and as a result, when the Indian finally dies, and the land becomes alienable, the lessee has effectually stifled competition and can dictate in a large measure the terms of sale.

At the time Congress granted the Indians of the restricted class authority to lease their lands for certain periods without supervision, it was believed that they would materially profit by the experience to be gained therefrom; but because the uneducated fullblood Indian is just as incompetent to lease his property as he is to sell it without supervision, there are hundreds of cases where such Indians are seldom in possession or derive much benefit from their allotments; the small rentals received therefrom being only sufficient for their meager existence, or barely preventing destitution, unless they receive per capita payments, are fortunate enough to have some land of prospective oil value, or sell a portion of their own or inherited allotments. At conservative estimate, the losses due to improvident agriculture leasing by full blood Indians will undoubtedly reach, if not exceed, the million dollar mark annually. In fact, the existing conditions in this respect retard rather than promote the progress of the Indian, as he grows to depend on these small rentals, instead of producing anything himself which is naturally detrimental to the advancement of eastern Oklahoma.

A further evil effect is that when the Indian desires to dispose of his excess lands and with the proceeds improve the remaining tract for a home and equip himself for farming, the existence of leases of this character often prevents a successful sale.

This system has also a bad effect on the economic condition of the state aside from the Indian citizenship for the reason that a large portion of the acreage in the eastern part of the state is occupied by a class of tenants who are of small advantage in the permanent development of the agriculture resources. If all lands which Indians may desire to sell were freed from this class of leases, sales could readily be made, and the land would be occupied by home owners and home builders.⁵⁷

It was the opinion of the Indian agent that Indians should be prohibited from leasing their land except in cases in which they were absolutely unable to take care of it themselves, and that the restricted Indians should be permitted to sell, under federal supervision, all land in excess of their homestead, thus giving them the means to put their farm in the proper state of improvement. This plan, he thought, would place the land directly in the hands of bona fide farmers who would proceed with the immediate improvement of the land, thus making thousands of idle acres, then tied up with speculative leases or in the hands of poor tenantry, productive.

⁵⁷Report of the Commissioner of Indian Affairs, 1914, p. 285.

Effect of Oil and Minerals Upon Agriculture in the Indian Territory: Oil is the only mineral which has materially affected land values in Muskogee county. Small beds of coal have long been known to lie in the county, but they have not been developed to any extent and have had but little effect upon agriculture in the area.

The first commercial oil well was not drilled in Indian Territory until 1897. However, it was not until after the discovery of the Glenn Pool near Tulsa that the possibilities of oil had much influence upon land values in the Territory, and by that time most of the land had already been allotted.⁵⁸ The leasing of restricted Indian land for mineral development was under the supervision of the federal government. Indians owning unrestricted lands did not require authority to lease their lands. The discovery of oil increased the pressure upon the Indians. It brought in an increasing influx of outsiders who wished to get control of the Indian land, not because of its agricultural possibilities, but because of speculative purposes. This naturally increased the amount of land which was held by those who were not interested in farming or developing the land themselves, but only in getting from it what they could by other methods. This offers another possible clue as to why some land was in holdings of uneconomic size for agricultural purposes.

Effect of the Negro Upon Agriculture: The treaties of 1866 established the freedmen in full equality in rights and privileges

⁵⁸Glasscock, op. cit., p. 155-156

with the Indians as well as a share in the national soil and funds. The Creeks looked upon the freedmen as their equals in rights and readily incorporated them into their tribes with all the rights and privileges of native Indians. The Cherokees were a little more reluctant and reserved in admitting the freedmen as members of the tribes.⁵⁹ The freedmen soon assumed a position of importance and leadership in tribal matters, and it was not long after they had secured their position of equality that the Indian agent wrote that the freedmen had planted larger crops, attended them more faithfully, and were further from want than their former masters.⁶⁰

There was much intermarriage between the Indians and freedmen, especially in the Creek nation, and many of the important chiefs and leaders were of mixed Indian and Negro blood. Taken as a group, the freedmen seem to have been an energizing influence upon the country, at least before the entrance of the whites.⁶¹ When Indian lands were allotted at the end of the century, the freedmen and their descendents received the same rights as the Indians. In 1890, 4,621 out of a total population of about 15,000 were freedmen, while 5,127 out of the total population of about 25,000 in the Cherokee nation were freedmen.⁶²

⁵⁹Report of the Commissioner of Indian Affairs, 1866, p. 284.

⁶⁰*Ibid.*, p. 319.

⁶¹"The Creek nation is an alert and active one, which is largely due to the Negro element which fairly controls it...In any of the 5 tribes where the Negroes have a fair chance, there is a perceptible progress due to them. The Negroes are among the earnest workers in the 5 tribes." Eleventh Census of the U. S., Vol. 10, p. 258, 1890.

⁶²*Ibid.*, p. 258

It must not be supposed that all the freedmen exerted the commendable influence upon the country that their more energetic leaders did. Some of them were as lazy and ignorant as any of the Indians. In 1903, the Indian agent reported that his office was "greatly annoyed by a few worthless Creek freedmen" who persisted in leasing or disposing of their lands as often as they could find anyone who would pay them a few dollars for it.⁶³ After the land had been allotted, there seems to have resulted the same evils in the system of leasing and disposing of land held by freedmen as arose from the land held by the Indians. While the presence of the Negroes and freedmen may have been an energizing influence upon the Indians, it must be assumed that they were an enervating influence upon the country as a whole, after the whites had entered the country in numbers.

Negroes from neighboring states began migrating into the Territory in large numbers at about the turn of the century. The situation favored a high rate of Negro tenancy. The small size of the tracts offered and the fact that a large amount of the land was controlled by speculators or in the hands of those who were not particularly interested in developing the land from a long time purely agricultural viewpoint did not do much to encourage the entrance of a high class of farmers who had the capital or the ability to develop the land to its full agricultural potentiality. The negro population of the Creek nation in 1890 was 4,621. By 1900, it had risen to 7,520; while by 1910, the

⁶³Report of the Secretary of Interior, Report of Union Agent, 1903, p. 247.

Negro population in Muskogee County alone was 16,454. In 1910, 31.2 per cent of the entire population of those counties other than Muskogee which were formed from the Creek nation consisted of Negroes. The number and per cent of colored farm owners and colored farm tenants in Muskogee county for the years 1910, 1920, and 1930 were as follows:

Table 11

Number and Per Cent of White and Colored Farm Owners and Tenants in Muskogee County, 1910, 1920, and 1930

	1910	1920	1930
Total number of farms	3,129	3,531	4,487
Number of colored owners	589	454	481
Number of colored tenants	610	618	1,174
Per cent of farms operated by colored farmers	37.5	30.3	36.8
Per cent of farm owners colored	18.4	12.8	10.7
Per cent of farm tenants colored	28.8	29.3	36.6
Number of white owners	471	954	779
Number of white tenants	1,509	1,487	2,034
Per cent of total farms operated by tenants	66.4	59.6	71.5

Source: 13th, 14th, and 14th Census of the U.S.

It will be noticed that the number of colored owners decreased from 1910 to 1920. This was probably due to the fact that many of the freedmen and Indian owners disposed of their allotted land during this time. The per cent of total farms operated by colored farmers in 1930 was 36.8, approximately what it was 20 years earlier when the per cent of colored farmers was 37.5. The per cent of total farm tenants who were colored, however, increased from 28.8 in 1910 to 36.6 in 1930. Thus, it is seen that colored farmers were probably a potent factor in the increase in farm tenancy in Muskogee county from 1910 to 1930.

Evolution of the Size of Farms in Muskogee and Garfield

Counties: The number of acres included in a farm is probably the best though not a perfect indication of the size of a farm. The amount of equipment, machinery and buildings are also elements affecting the size of farms; but as is shown in Table 13, the value of these varies greatly over a period of years in accordance with variations in the general price level. This makes the long time movement of the importance of implements and machinery difficult to determine. Other measures of size of farms might be the number of laborers used or livestock on the place. But area is the one thing which all farms have in common and which is most easily obtained and widely used, and for that reason will be used in this paper.

The average sized farm in the Creek nation was 329.2 acres. (Table 12) That the average size was so large, was, of course, due to the fact that, as each citizen could enclose as much land as he wanted, there were some very large farms. Cattle raising was one of the leading industries in the country, and large ranches were not uncommon. There were 122 holdings of over 1000 acres. However, the largest number of farms was found in the 20-50 and 100-175 acre groupings which included the 40 and 160 acre farms.

In Muskogee county ten years later, however, the largest number of farms was in the 50-100 acre group while the 20-50 acre group was a rather close second. This indicated that most of the allottees had disposed of at least part of their 160 acre allotments by this time.

Table 12

Total Number of Farms, Average Size of Farms, Per Cent of Land Area in Farms, and Size Distribution in Muskogee and Garfield Counties, Census Years, 1900-1935

		: Per Cent:		Number of farms with an acreage of											
: No.:	Ave.:	: of Land	: Under:	3-	10-	20-	50-	100-	174-	260-	500-	Over	: Per Cent :		
: of	: Size	: Area in	: 3	: 9	: 20	: 49	: 99	: 174	: 259	: 499	: 999	: 1000	: of Farms :		
: Farms:	: Farms	:	:	:	:	:	:	:	:	:	:	:	: over 175 :		
<u>Creek Nation</u>															
1900	4,240	329.2	*	38	141	289	1,127	725	1,146	142	342	168	122	16.2	
<u>Cherokee Nation</u>															
1900	13,537	134.2	*	76	479	1,309	3,777	2,634	2,368	1,181	1,156	444	113	21.4	
<u>Muskogee County</u>															
1910	3,192	100.5	61.6	2	60	163	930	1,060	653	146	130	33	15	10.1	
1920	3,531	98.5	66.8	4	38	131	1,036	1,141	768	223	153	30	7	11.7	
1925	3,958	78.8	*	1	121	243	1,264	1,372	709	156	75	12	5	6.2	
1930	4,487	86.5	74.2	56	138	224	1,253	1,481	954	229	121	26	5	8.7	
1935	4,480	88.8	76.4	8	205	279	1,159	1,462	977	233	130	18	9	8.7	
<u>Garfield County</u>															
1900	3,744	172.5	*	2	18	10	61	238	2,806	270	313	25	1	16.2	
1910	3,291	197.3	95.6	3	24	28	72	203	1,802	457	666	36	-	35.2	
1920	3,089	211.3	96.1	2	34	39	68	176	1,499	422	801	45	3	31.1	
1925	3,049	204.7	*	2	76	53	85	194	1,507	359	723	47	3	37.1	
1930	3,478	204.2	96.0	16	134	89	169	338	1,350	445	822	110	5	39.7	
1935	3,056	213.5	96.1	6	175	85	136	235	1,166	329	795	118	11	41.0	

Source: United States Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910; 12th Census 1900, Vol. V.

* Data Not Available.

Table 13

Value of Land and Buildings, and Value of Implements and Machinery
per Farm for Creek and Cherokee Nations 1900, and for Muskogee and
Garfield Counties, Census Years, 1910-1930.

	1900	1910	1920	1925	1930
<u>Creek Nation</u>					
Value of Land and Buildings	\$1,625	*	*	*	*
Value of Implements and Machinery	50	*	*	*	*
<u>Cherokee Nation</u>					
Value of Land and Buildings	903	*	*	*	*
Value of Implements and Machinery	96	*	*	*	*
<u>Muskogee County</u>					
Value of Land and Buildings	*	\$3,503	\$6,181	\$3,953	\$3,610
Value of Implements and Machinery	*	94	236	170	182
<u>Garfield County</u>					
Value of Land and Buildings	*	9,381	15,935	11,334	13,161
Value of Implements and Machinery	*	289	1,053	711	1,037

Source: U. S. Census, Vol. I, 1935; Vol. II, Part II, 1930; 14th Census 1920; Vol. VII, 1910;
12th Census 1900, Vol. V.

* Material not available.

Between 1920 and 1925 the average sized farm in Muskogee county decreased about 20 acres, from 98.5 to 78.8 acres. This was accompanied by a decrease in the number of farms in the large size groupings and an increase in the small size groupings. This development also occurred in Garfield county, although to a smaller degree. Possibly a powerful contributing factor was the fact that agricultural prices and land values slumped badly at this time, thus causing a breakdown of some of the larger farms.

The number of farms in the small sized groupings has increased steadily in both counties since 1925. In Muskogee county, probably a large amount of this increase was due to the increase in the per cent of land area in farms. Possibly another reason for the increase in the number of small farms in Muskogee county and decrease in the number of large farms from 1900 to 1925 was due to the fact that many who received allotments at the beginning of the century were minors. Their parents operated their holdings for them until they came of age at which time the children operated the land themselves.

In 1900, the group containing the largest number of farms in Garfield county was the group containing the 160 acre farms. In 1935, this group still contained the most farms, although during the intervening years the number had decreased steadily in this group while increasing rather steadily in all the other sized groups. However, by 1935, there were nearly twice as many farms over 160 acres in size as under. The average sized farm was 213.5 acres in 1935 as compared with 172.5 acres in 1900.

Probably the most significant thing revealed in Table 12 is that in Garfield county all farms initially were 160 acres, that 160 acres has continued to be the most common size, but that the average size of all farms has increased up to 1935. The most common size after the 160 acre farms was in the group containing farms from 260 to 500 acres.

In Muskogee county, on the other hand, the most common sized farm also was originally 160 acres. However, the number of acres decreased rapidly while the number of smaller sized farms increased rapidly. This gives rise to the question: Was the trend toward smaller sized farms in Muskogee county due to the fact that they were more profitable than larger farms, or was this trend possibly due to other factors?

This historical aspect of the problem is obviously an inadequate one with which to explain the differences in the size of farms and intensity in the two areas, although there is no doubt that it has played an important role. It has been shown that land was originally opened to white settlers in tracts considerably less than the size of tracts in Garfield county, and that the original settlers were probably poorer farmers and had less capital and ability than the farmers originally settling in Garfield county. However, if the land was originally opened in tracts of uneconomic size, one would naturally expect the size of farms to gradually increase over a long period of time; and if the original settlers were of a rather low capacity, one would expect that farmers of superior capacity would migrate if they thought that there was opportunity there. But instead of

increasing the size of farms actually decreased. This would imply that other powerful economic forces are at work influencing the size of farms in the area, and that a more thorough analysis of the farm business in the two counties and of the factors affecting them is in order. It also suggests the possibility that the farms in Muskogee county may actually be approaching optimum economic size under existing conditions.

Natural Factors: The natural factors have already been discussed to some extent. It has been mentioned previously that the land is somewhat rougher in Muskogee county than in Garfield county and that it is more cut up by streams. This would naturally limit the size of farms to some extent, for under such circumstances, large scale machinery must not be used, and smaller scale or sometimes even hand machinery must be depended upon. This reduces the amount of land which one man can operate. It can readily be observed that the general rule in the United States is for the area of level or gently rolling land to be characterized by farms of a larger size than the more hilly sections, if the economic location of the two areas is generally the same. While this may be an important factor, the smallness of the size of the farms cannot be attributed entirely to it, because much of the country lies in the prairie plains province which is relatively level.

The climate might also have some influence. The rainfall is somewhat higher in Muskogee county than in Garfield county. This might reduce the number of days during the rush season when it is possible to work in the fields and thus reduce the amount

of land which one man can profitably operate. While probably a factor, it is doubtful if this is of much more than negligible importance. It is probable that the greatest influence which the natural factors have upon the size of farms in Muskogee County lies in their effect upon the types of farming.

Type of Farming: The forces determining type of farming were mentioned at the beginning of this paper. Briefly, to recapitulate, they were natural, biological, and economic. It is hardly probable that biological forces have played a very important part. Therefore, it would seem likely that type of farming is due largely to the natural and economic forces. The amount and per cent of total crop acreage devoted to the principle crops in the two counties in 1929 were as follows:⁶⁴

Table 14

Amount and Per Cent of Total Crop Average Devoted to
the Principal Crops in Muskogee and Garfield Counties, 1929

County	Total	Wheat		Cotton		Corn		Sorghum	
	Crop	Per		Per		Per		Per	
	Average	Acres	Cent	Acres	Cent	Acres	Cent	Acres	Cent
Gar.	:473,359:	341,262:	72.1:	1,478:	.3:	24,679:	5.2:	13,167:	2.7:
Musk.	:261,709:	1,746:	.7:	96,557:	36.8:	83,780:	32.0:	4,559:	1.7:
	:	:	:	:	:	:	:	:	:

Source: 15th Census, Vol. II, Part II, 1930.

These figures show wheat is the dominant crop in Garfield County, while in Muskogee County, the major emphasis is upon corn and cotton. Wheat growing lends itself more readily to large scale extensive farming than either corn or cotton. In general, cotton farms are smaller than wheat farms. The

⁶⁴H. C. Taylor, op. cit., p. 170.

reason is evident.⁶⁵ Cotton requires much more labor during the growing season than does wheat. Also labor cannot be supplanted as readily by improved types of machinery in cotton farming as in wheat farming. Therefore, labor would have to be concentrated in a smaller area, and smaller, more labor intensive farms would be the result.

It has just previously been mentioned that it is probably the natural factors, ie., soil, climate, topography, which have made wheat paramount in Garfield county and corn and cotton the leading crops in Muskogee county. Consequently, there has resulted larger farms in Garfield than in Muskogee county. Nevertheless, there is a remaining question of whether or not all the differences in the size of farm and intensity can be attributed to differences in the type of farming and to differences in the topography and climate.

If the two counties were settled by farmers of equal capacity, efficiency and opportunity, the average labor income would naturally approximate equality irrespective of types of farming. The rather wide differences in labor income between the two counties brings up the possibility that social factors may be of great importance. In 1930, 37 per cent of all the farms in Muskogee county were below 50 acres. In Garfield county, on the other hand, only 21 per cent of all farms were below 100 acres in size. That such a large proportion of the farms in Muskogee county are so small has undoubtedly served to

⁶⁵H. C. Taylor, op. cit., p. 170.

lower the average labor income. That cotton farms do not have to be small to be efficient is shown by the large, prosperous cotton farms in western Oklahoma and in some areas of Texas. On the contrary, small cotton farms are often inefficient in the use of labor, capital, and power.

Social Factors: It seems probable that the method of settlement and type of whites who initially moved into Muskogee county had a profound influence upon the development of agriculture there. This has already been discussed to some extent. The first settlers were Indians and Negroes. While they made remarkable strides in agricultural development over what their status had formerly been, their progress could hardly be compared to that of the leading agricultural states during the same period. Nor were the whites who first entered the country hardly of a type to contribute materially to the agricultural well being of the country. Many were criminals hiding from the law. Others hardly less reprehensible came with the purpose of seizing what they could from the Indians by fair means or foul. Soon after the Civil War, the Indians needed laborers and tenants to work their lands and take the place of the freed slaves and also to take advantage of the wider markets which the railroads brought. Many of the whites who moved in for this purpose were of a poor and shiftless lot. Most of them had been tenants or laborers in Texas, Arkansas, and other southern states.⁶⁶ The farmer with the energy or means of fully developing the country had but little incentive for coming, for most of the whites were there only by

⁶⁶Dale and Rader, op. cit., p. 740.

sufferance of the Indians. They were subject to removal at any time and could not own land. School facilities were non-existent, or at best, were meager. There were, of course, exceptions to the general case. There were some whites who leased large tracts of land from the Indians and either stocked it with cattle or farmed it on a large scale.

When the land was allotted to the Indians, many of the early white residents bought the land from the allottees if they had the means, or else leased it from them or from whites who had bought the land for speculative or investment purposes. Most of the tracts offered for sale were rather small, no case over 160 acres and seldom over 120, but this suited their small means. There were many new migrants coming into the country at this time who were interested in selecting farms as a source of permanent livelihood, but the fact that most of the tracts were of such a small size and often so widely scattered as to prevent their being combined into a large holding, as well as other factors, offered a discouraging prospect to an energetic man from the better agricultural states.

By way of contrast, Garfield county and the western part of Oklahoma was settled far differently. There, each settler received direct title. He came, ostensibly at least, for the purpose of making that his permanent home and source of livelihood. Each settler had to file an affidavit stating that he was filing on the land for the purpose of actual settlement and cultivation and not for the benefit of a third party or corporation nor for

speculative purposes.⁶⁷ The settlers were largely self-governing from the start. Negroes and Indians were few, and the schools were good as pioneer schools went. Most of the settlers, in Garfield county especially, came from Kansas, Missouri, and Iowa and contiguous states. It is true that many of them were destitute or nearly so when they came to Oklahoma, but most of them came from a part of the country and from an ancestry where shiftlessness was by no means a universal characteristic, and they started to work with the energy of the pioneer who believes in his land and that it will produce abundantly, and who knows that the fruits of his labor are his alone. Garfield county was opened to settlement in 1892. By 1897, the average yield of wheat was about 25 bushels, with yields as high as 55 bushels an acre being reported in some instances.⁶⁸ The average size of the labor income for Oklahoma Territory in 1900 was reputed to be \$458.93. For Indian Territory, it was \$292.94.⁶⁹ An interesting angle on the matter under consideration is revealed in the following data:

Table 15

Number of Illiterate in Muskogee and Garfield Counties, 1910.

County	:Per Cent: :of popu- :lation :Negroes	:Total :popu- :lation	:Negro :popu- :lation	:Total :Number: :Illit- :erate	:Per Cent: :Illit- :erate	:Per Cent: :White :Illit- :erate	:Per Cent: :Negro :Illit- :erate
Muskogee	: 31.2	:52,743	:16,454	:1,095	: 7.0	: 3.3	:13.9
Garfield	: 2.5	:33,050	: 822	: 95	: 1.0	: .5	: 6.6
Source: Thirteenth Census of U.S. 1910, Vol. VII.							

⁶⁷J. L. Calvert, "Oklahoma Settlers Guide," State Capital Printing Company, 1896, p. 26.

⁶⁸Report of the Governor of Okla. to Sec. of Int., 1896-7, p. 26.

⁶⁹Twelfth Census of U.S., Vol. V, p. 131.

The data show that the number of illiterate in Muskogee county in 1910 was considerably larger than in Garfield county, probably due to the facts which have been disclosed. It seems reasonable to conclude that an illiterate farmer is generally a poorer farmer and has less capacity than an educated one, just as it is certain that an illiterate business man is under great disadvantage compared with his educated competitor.

There is one aspect of the case which should not be overlooked and which, perhaps, should be considered now. The question might be asked: To what extent has the method of settlement really contributed to the magnitude of the problem in Muskogee county? Might not the same differences between the counties have appeared had Muskogee and Garfield counties both been settled in a similar manner? As was pointed out near the introduction, Muskogee county consists of a somewhat rougher terrain than Garfield county. The soil is as a whole less fertile and the county is more conducive to subsistence farming. The county is much more similar to the subsistence farming areas of the southern states from which many of its inhabitants moved. In short, if Muskogee had been opened in a manner similar to Garfield county, might not the poorer, subsistence farmers eventually have gravitated to Muskogee county anyway?

It is readily apparent that the areas of high colored and cropper concentration in the south are marked by smaller farms than in areas where a larger proportion of the farmers own their own land and are skilled in the use of advanced agricultural technique. This fact seems to give strong evidence to a belief that the capacity of the individual farmer is a powerful factor

in determining the size of farms. H. C. Taylor has advanced an interesting hypothesis to the effect that the best farmers tend to settle on the best land.⁷⁰ This hypothesis has been objected to by some on the grounds that poor land is really more difficult to manage than better land, and that it therefore requires better managers to operate it efficiently.

On the other hand, better managers are usually more efficient in the use of the best known techniques. There is some evidence that the economic use of the best known techniques means their employment on good land.⁷¹ This would imply an increase in the acreage of an economically operated farm in Garfield county due to the tendency of farmers of a higher capacity to congregate there. If this line of reasoning is correct, then it would seem that the settlement of the best farmers of Garfield County and the gradually increasing size of the farms there with the resulting higher price of labor income is but a natural and inevitable process.

Nevertheless, it has not yet been proved that this could be accepted as a sole explanation. Under perfect competition, one might expect that the results of the competition would eventually be such that there would be little difference between the areas. If higher returns could be secured by settling in Garfield County, the competition for that land would become so keen that eventually the returns would be reduced to such an extent that there would be little alternative between settling

⁷⁰H. C. Taylor, op. cit., p. 172.

⁷¹C. A. Wiley, "Tenure Problems and Research Needs in the South," Journal Farm Economics, Vol. XIX, No. 1, 1937, p. 136.

in Muskogee or Garfield Counties. That a small amount of difference in income might exist one would naturally expect, but that the difference in the capacities of the operators would cause such a wide difference has yet to be proved.

Mention might be made here of the significance of the smaller size of families in Garfield county, resulting from a lower birth rate. In most regions, a low birth rate implies a higher economic status. In this case, the smaller size of families and declining birth rate in Garfield County would seem to be another indication that the status of the farmers in Garfield County is higher than the status of the farmers in Muskogee County.

Other Factors: The manner in which Muskogee County was settled has had a deep influence upon its tenancy rate. The following data show the per cent of farms operated by tenants in Muskogee and Garfield Counties, 1900-1935:

Table 16

Per Cent of Farms Operated by Tenants in Muskogee and Garfield Counties, 1900-1935

County	1900	1910	1920	1930	1935
Muskogee	63.4	66.4	59.6	71.4	71.6
Garfield	17.0	35.3	42.8	47.5	48.5

Source: Twelfth Census of the U.S.; 13th Census of the U.S., Vol. VII; 14th Census of the U.S., Vol. VI; 15th Census of the U.S., Vol. II, Part II; Census of Agriculture, 1935, Vol. II.

¹For Creek Nation. Muskogee County was not yet formed.

These data show that the tenancy rate was high when the whites were first permitted to own land and that it has remained

high ever since. Garfield County, on the other hand, started out with a very low tenancy rate, but it has been rising steadily ever since. The high tenancy rate in Muskogee County was originally due to restrictions on the sale of Indian lands to white men. Restricted Indians might rent their land, but not sell it. This brought into the country a rather low type of farmer who had always been a tenant and who had little prospect of ever being anything else. Later, they rented from whites who had bought Indian land for speculation or for investment.

The situation was far different in Garfield County. Every farmer was at first a land owner. Subsequently, the tenancy rate steadily increased, until 1935, when it was nearly 50 per cent, but still considerably below the rate for Muskogee County.

However, the fact that the land is cheaper and that the average size of investment is smaller in Muskogee County might lead one to suppose that the tenancy rate would decline there. If the farms were of an optimum economic size, it would be easier for farmers of small means to eventually supply the smaller amount of capital required.

It has previously been revealed that Muskogee County was more labor intensive than Garfield county. This would mean that the tenants would apply more labor to a unit of land in Muskogee than in Garfield County. As more labor was added to a unit of land, this would mean that the gross receipts from that unit would rise unless the point of additional total returns had been reached. As share rent was the prevailing method of paying rent in the area, it would seem that this would consequently raise the

rent from that land. Tables 17 and 18 show the ratio of rent to land value for Muskogee and Garfield Counties for the years 1937 and 1938, the tenants in each case being separated into the groups of share tenants, cash and share tenants, cash tenants and part owners. In addition, the 1938 data for Muskogee County were separated into two groups, one containing colored tenants and the other containing the white tenants. Records for 1937 were not treated in this manner due to the smaller number of farms from which data were secured.

The fact that the ratio of rent to land value was so low in Garfield County in 1938 was due to the exceptionally poor year in that county caused by poor yields and low prices. On the other hand, 1937 was an exceptionally good year for Garfield county, the labor income for that year having been higher than any other year during the ten years for which records have been kept. Thus, the two year average should not be far from normal.

The tables show strong evidence that the ratio of rent to land value is higher in Muskogee County than in Garfield County. Also, the colored tenants seem to pay a somewhat higher rent than do the white tenants in Muskogee County. In both counties, the share tenants and the cash and share tenants seem to pay a higher rent than the part owners. The sample of cash tenants secured was too small to permit conclusions to be given.

The higher ratio of rent to land value in Muskogee County would mean that the land yields a higher rate of return on the investment to the landlord in Muskogee than in Garfield County.

Table 17

Value of Land, Ratio of Rent to Land Value, and Rent Paid
in Garfield County by 42 Tenant Farmers
in 1937 and 57 Tenant Farmers
in 1938.

	Ave. : Size : of : Farms :	Rent : Rent : Per : Acre :	: Rent : Value : of Land :	: Total : Value : of Land :	Ave. Val. : of Land : Per : Acre :	Ratio : of Rent : To Land : Value :	No. : of : Farms :
<u>1937</u>							
Share Tenants	353	1,462	4.17	21,853	62	6.7	8
Cash and Share	320	1,362	4.25	15,112	47	9.0	12
Part Owners	199	754	3.78	9,126	45	8.4	21
Cash Tenants	70	120	2.00	1,200	20	10.0	1
Average of All Farms	264	1,052	3.99	13,310	50	8.0	42
<u>1938</u>							
Share Tenants	281	531	1.89	15,405	54	3.5	12
Cash and Share	333	708	2.12	15,927	48	4.4	11
Part Owners	239	370	1.54	10,375	43	3.6	31
Average of All Farms	260	456	1.75	12,329	47	3.7	57
Average for 1937 and 1938	262	754	2.86	12,819	49	5.8	

Source: Derived from Data Gathered by Department of Agricultural Economics,
Oklahoma A. and M. College.

Table 18

Value of Land, Ratio of Rent to Land Value and Rent Paid
in Muskogee County by 57 Tenant Farmers in
1937 and 192 Tenant Farmers
in 1938.

	Ave. : Size : of : Farms :	Rent : Rent : Per : Acre :	Rent : Rent : Per : Acre :	Ave. Val. : of Land : Per : Farm :	Ave. Val. : of Land : Per : Acre :	Ratio : of Rent : to Land : Value :	No. : of : Farms :
1937							
Share Tenants	99	186	1.86	1,866	19	9.8	37
Cash and Share	134	242	1.81	2,436	18	10.0	10
Part Owners	70	103	1.46	1,777	17	8.6	9
Cash Tenants	180	187	1.94	4,200	23	8.4	1
Average of All Farms	102	187	1.83	1,898	19	9.8	57
1938							
Colored Tenants							
Share Tenants	92	166	1.80	1,689	18	9.8	103
Cash and Share	119	211	1.77	2,317	19	9.3	10
Part Owners	73	100	1.37	1,308	18	7.6	19
Cash Tenants	133	162	1.21	2,598	19	6.4	3
Average for all Colored Tenants	92	160	1.74	1,709	18	9.4	135
White Tenants							
Share Tenants	139	241	1.73	2,782	20.7	8.3	35
Cash and Share	148	192	1.29	2,088	14.1	9.1	10
Part Owners	194	144	.74	2,686	13.8	5.4	8
Cash Tenants	130	171	1.31	2,298	17.6	7.4	4
Average for all White Tenants	147	213	1.47	2,613	17.7	8.3	57
Average for all White and Colored Tenants	108	176	1.63	1,977	18.2	8.9	192
Average for 1937 and 1938	105	181	1.73	1,937	18.5	9.4	

Source: Derived from Data Gathered by Department of Agricultural Economics,
Oklahoma A. and M. College.

The reason is that the landlord may receive part of the wages of the operator. Theoretically, this rent would tend to equal economic rent, but in the case of Muskogee county it might exceed this. One contributing reason for this might be that the tenants in Muskogee County require more supervision than in Garfield County, and this is part of the payment for it. Therefore, the higher rent need not be reflected to the higher land values.

Another factor causing the higher rents in Muskogee County might arise from the higher risk which the landlords on the smaller farms have to undergo. While the losses may be proportionally as great during bad years, the profits on good years may not be as high. Also, the landlords may have to contribute more during lean years to supply the needs of the farm operation a factor which landlords of larger farms and superior tenants may not have to contend with as much.

The question may arise as to why the tenants in Muskogee county pay the higher rent. The answer is that they have nothing else to do. They do not have the necessary capital with which to buy land, and it is harder for them to secure credit. Small, subsistence farms return but very little with which to repay a debt. Consequently, loaning agencies are loath to lend to individuals on such farms, who subsequently must make the best bargain they can with their landlord.

Labor is about the only factor of production which such tenants and small farmers have an adequate supply of, and their

only choice is to exploit that to the best of their ability. The tendency is for farm entrepreneurs to use most exhaustively that factor of production which is cheapest in relation to the others. As labor occupied this position, it was consequently the most exploited. This suggests another reason why the farms in Muskogee County are so much more intensive.

The farmers who originally settled in Muskogee County had very small means and came from states where their experience had largely been confined to cotton growing. When they came to Muskogee County, they were forced to settle upon farms of a rather small size. In order to compete with the larger farms, in other portions of the state and nation, they had to choose between either increasing the size of their farms or farming more intensively. As there was an abundant supply of unskilled labor on hand, the latter choice was the result. In order to utilize the large amounts of family labor upon such a small sized holding, they had to depend upon enterprises which could absorb such excess labor. Consequently, the emphasis upon corn and cotton was the result. Fortunately, the poorer Muskogee County land had the capacity to absorb the larger quantities of labor. The Garfield County wheat land on the other hand, although more efficient, could not absorb successive quantities of labor as could the poorer land. This is often the case and offers a clue to one reason why regions of poorer land in the United States are often farmed more intensively than the more fertile cash grain areas.

It has been observed in Oklahoma that in areas where diversified and subsistence types of farming are practiced, the average size of farms has been decreasing.⁷² It was also noticed that the areas where subsistence farming is practiced the soil is much less fertile than areas of highly specialized farming. This was true even in western Oklahoma. The population trend in Muskogee and Garfield counties since statehood was as follows:

Table 19

Population Density in Muskogee and Garfield Counties,
1907-1930

	: 1907	: 1910	: 1920	: 1930	: 1907-30	:
	: Den-:	: Den-:	: Den-:	: Den-:	: Den-:	: % :
Co.	: Pop. :	sity: Pop. :	sity: Pop. :	sity: Pop. :	sity: Inc.:	Inc.:
Musk.	: 37,467:	46.0: 52,743:	64.8: 61,710:	75.8: 66,424:	81.6: 35.6:	77.3:
Gar.	: 28,300:	26.7: 33,050:	31.1: 37,500:	35.3: 45,585:	43.0: 16.3:	61.1:

Source: O. D. Duncan, "Social Aspects of Rural Shifts of Farm Population in Oklahoma," Current Farm Economics, Vol. 9, No. 4, Aug. 4, 1936, p. 88.

These figures show that Muskogee was not only the more densely settled at the time of statehood, but that the density has been increasing more rapidly since. The reason why subsistence farmers are more prone to settle in areas of poorer land is not difficult to find. They are usually accustomed to a lower standard of living. Poorer land offers a lower standard of living, unless the farms are of an economic size. It is also

⁷²O. D. Duncan, "Social Aspects of Rural Shifts of Farm Population in Oklahoma," Current Farm Economics, Vol. 9, No. 4, Aug. 4, 1936, p. 88.

cheaper in price. These farmers, not having the means to settle upon higher priced land, thus settle upon small tracts of the poorer land and attempt to support themselves upon it the best they can. There results the small subsistence farms and dense farm population.

In 1937, the average total investment per tenant in Garfield County was \$10,772, while for Muskogee county for the same year, it was \$1,099. (Table 20.) The average labor income per tenant for the same year was \$1,788, while for Muskogee County it was \$321. (Table 21.) This fact would seem to suggest the reason why the tenants or even the farmers in the small, subsistence farming areas of Muskogee County are not able to migrate to the areas where they might receive a higher reward for their exertion, but where a much larger amount of capital is also required. Such farmers are often poor credit risks and consequently would find it extremely difficult to borrow the capital necessary to operate a larger farm. This fact also suggests a reason why farmers of a superior capacity do not readily migrate to Muskogee County. Farmers with but little experience, capital, or capacity congregate on the small farms in areas where land is cheap. In doing this, they may be forced to pay higher prices or rents than the other farmers would be justified in paying. Hence they would have no incentive to migrate to such an area.

The question that next arises is to what extent the farms in Muskogee County are of an optimum economic size. Studies made

in the past reveal that as size of farm increases, the labor income increases. Reference to Table 22 reveals that the smaller farms are the more intensively cultivated containing more cotton and livestock on a given quantity of land than the larger farms. However, the returns to capital and family labor were considerably lower on the smaller more intensive farms. This might suggest that the larger farms give the larger returns and are closer to an optimum economic size.

However, the farm income per dollar invested tends toward an equality in Muskogee and Garfield Counties, although slightly higher in Muskogee County. The average returns to capital and family labor per dollar invested in Muskogee County in 1937 was \$.154, while for Garfield County in the same year it was \$.153. The three year average of 1935, 1937, and 1938 in Muskogee County was \$.13, while the three year average for Garfield County was \$.115. The reason that they tend to be equal is that land values tend to be so capitalized as to give the same rate of return. The reason that the farm income per dollar invested is slightly higher in Muskogee than in Garfield County might be that as the landlords perform a greater supervision of their tenants, they must consequently receive a higher return, and therefore land values are not capitalized so high. Also, the good land in Garfield County may be over capitalized due to greater demand by farmers with adequate capital. Therefore, as returns to capital and family labor per dollar invested tend to an equality, the larger labor income

Table 20

Average Investment of 53 Tenants and Owner Operators
in Garfield County and 59 Tenants and Owner Operators
in Muskogee County, 1937.

	: : Share : Tenants	: : Cash : Tenants	: : Part : Owners	: : Share Tenants: : and : Cash Tenants	: : Owner : Operators
<u>Garfield County</u>					
Total	33,814	516	372,161	56,714	226,125
Average	4,227	516	16,916	4,726	22,612
Number of Farms	8	1	22		10
<u>Muskogee County</u>					
Total	20,394	1,274	25,599	8,798	30,020
Average	658	1,274	2,844	880	3,754
Number of Farms	31	1	9	10	8

Source: Derived from Data Gathered by Department of Agricultural Economics
Oklahoma A. and M. College.

Table 21

Average Labor Income for 53 Tenants and Owner Operators in Garfield County and 59 Tenants and Owner Operators in Muskogee County, 1937, and Average Labor Income for 218 Tenants and Owner Operators in Muskogee County and 72 Tenants and Owner Operators in Garfield County, 1938.

	: : Share : Tenants	: : Cash : Tenants	: : Part : Owners	: : Share Tenants : and : Cash Tenants	: : Owner : Operators
	<u>1937</u>				
	Muskogee County				
Average	\$ 310	\$380	\$ 321	\$ 345	\$-14
Number of					
Farms	31	1	9	10	8
	Garfield County				
Average	2,093	711	1,658	1,675	927
Number of					
Farms	8	1	22	12	10
	<u>1938</u>				
	Muskogee County Colored				
Average	232	237	86	210	126
Number of					
Farms	93	4	19	20	16
	Muskogee County White				
Average	343	668	449	340	298
Number of					
Farms	35	4	8	10	9
	Garfield County				
Average	78	388	-499	-177	-641
Number of					
Farms	11	5	31	12	12

Source: Derived from Data Gathered by Department of Agricultural Economics, Oklahoma A. and M. College.

on the larger farms and in Garfield County might be a return to a greater labor efficiency and capacity of the operators.

Table 22

Average Farm Returns on Farms Classified by Size Groups
Muskogee County Survey, 1935.

	Size of Farms (Acres)				
	Average of all farms	0-59	60- 119	120- 180	180 & over
Number of farms	76	14	28	22	12
Farm investment	4,032	1,078	2,959	4,571	8,965
Total receipts	688	228	598	758	1,331
Livestock	211	63	202	183	467
Crops	377	102	257	489	772
Miscellaneous	100	63	139	86	92
Total expenses	469	157	342	569	977
Return to capital and family labor	219	71	256	189	354

Source: Peter Nelson, Current Farm Economics, Vol. 12, No. 4, Aug., 1939, p. 108.

Hence the reason farmers of greater capacity and efficiency are able to ascend the agricultural ladder so to speak and eventually to settle on better and larger farms while the poorer farmers of less capacity remain on the small farm basis.

CONCLUSION: It has been shown that farm intensity and the average size of farms in Muskogee County are not what theoretically would be expected by one who had no knowledge of the existing conditions in the county. This paper has endeavored to determine how existing conditions have actually tempered intensity and size of farms.

The factors mainly responsible for the relative high intensity and small size of farms might be divided into three groups, namely, the rather rough topography which in some sections

has limited the size of cultivated fields and has made the use of more advanced techniques less advantageous than in some other sections of the state; type of farming which has been partly responsible for the smaller, more intensively cultivated farms, and the large proportion of farmers in Muskogee County who have small capacity, experience, or capital.

The first two of these factors need no further comment here. The third factor is more complex, and is itself the result of several social and economic forces, the initial force being directly attributable to the manner in which the land was settled. One cannot define with exactitude the contribution of this force to present conditions. The presence of similar conditions in some other sections of the country which have similar physical characteristics but which were not settled in a similar manner would seem to lend substance to the conclusion that, while this force was of primary importance in inaugurating the trend leading to the present state of affairs, other factors also are exerting considerable influence. Probably all that can be said with certainty is that it has accelerated and aggravated a tendency which would have taken place, anyway.

Poorer farmers naturally tended to gravitate to the Muskogee County area because they did not have the necessary capital, capacity, or skill in the use of the better agricultural techniques necessary to compete with the farmers in the better areas such as is characterized by Garfield County. They were forced to settle on small units of poor land and exploit that to the utmost

of their ability. Smaller, more intensively cultivated farms were the result.

Are these results in conformity with the farmer's best economic interests? In the introduction, it was pointed out that theoretically, one would expect the returns for a given unit of investment upon the intensive margin and of the same investment on the extensive margin would tend to be equal. It was later pointed out that one would expect intensity to be greater in Garfield than in Muskogee county; but the fact that the index of intensity gave greater intensity for Muskogee County, coupled with the greater average farm incomes in Garfield County suggested the possibility that the size of farms and farm intensity are not in conformity with the farmers' best economic interests. In other words, it might pay the farmers in Muskogee County to extensify their farm operations.

This would certainly seem sound logic for this supposition if the above comparison could have been made between farms of equal size and farmers of equal experience and capacity and the same results had been obtained. But the swirl of economic and historical action instead of depositing farmers of equal capacity and capital indiscriminately throughout the two counties, seems to have acted as a centrifugal force separating the farmers in each county into two unequal groups. It is possible that if comparisons could have been made between farms of equal size and farmers of equal status in the two counties, entirely different results would have been obtained.

The fact that the returns per dollar invested in Muskogee County approached the returns per dollar invested in Garfield County indicated that the farmers in Muskogee County may be doing a fairly good job with the means at their disposal. The larger labor income on the larger farms in Muskogee County, on the other hand, indicates that had they the ability and the means to enlarge their holdings, such enlargement would enhance their income. More work needs to be done in this respect before the optimum size of farms in Muskogee County can be determined.

Can the size of farms be expected to increase materially in the future? Since 1925, the average size of farms in Muskogee County increased approximately 10 acres per farm (Table 12). It seems likely that as the capacity of the poorer farmers increases in Muskogee County through education and that if the farmers are not hampered by economic depression, the size of farms will continue to gradually increase. On the other hand, it can be expected that the same factors, previously discussed, which have drawn the poorer farmers to the cheaper land in Muskogee County and which have been responsible for the smaller more intensive farms, there will continue to operate in the future. Therefore, it seems likely that the size of farms will continue to be small and intensity relatively great in Muskogee County for some time to come.

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