AN ECONOMIC ANALYSIS OF A DESIGNATED "SUBMARGINAL" AREA OF MCCURTAIN COUNTY, OKLAHOMA

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By

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PREFACE

This study concerns submarginal farms in a designated "Land Utilization Project" area in McCurtain county, Oklahoma, with the purpose of determining the relationship of such factors as size of farms in relation to land transfers, mortgage records, tax delinquencies, appraised and assessed values during the period 1900-1939.

REVIEW OF LITERATURE

L. F. Garey [1] discusses the land transfer problem in twelve Nebraska counties as it is related to economic and social changes. In this study he attempts to discover the nature of land transfers, the relation to assessed taxes, and the conditions under which they were made for the period 1928-1933.

Schickele's [2] study of methodology in the Soil Conservation and Agricultural Adjustment research seeks to appraise the fundamental assumptions and explain soil conservation and land use adjustment with regard to public policy. In this presentation there is an appraisal of program planning in soil conservation together with the probable effects of positive, desirable changes in land use patterns in relation to types of farming, size of farms, and status of land tenure as these changes influence the total production of agriculture.

1/ L. F. Garey, Land Transfers in Twelve Counties in Nebraska, 1928-1933, University of Nebraska Agricultural Experiment Station, Research Bulletin No. 107 (Nov. 1938).

2/ Rainer Schickele, Economics of Agricultural Land Use Adjustment, Research Bulletin No. 209, Iowa Experiment Station, March 1937.

Hedrick, [3] in a study of farm tax delinquency in eight counties in Michigan between 1928 and 1932, attempted to determine the growth and extent of delinquencies, the extent to which back taxes were paid before the sale date, the extent of land losses from tax delinquency and its ratio to delinquency, the extent of arable lands defaulting, and the effects of the tax relief measures and remedies which are adopted during times of emergency.

Mereness [4] found in a study of farm mortgage experience in five counties in Alabama that poor soils are overvalued in relation to the better soils, that the percentage of foreclosures was lowest for sandy loam soils, and that the percentage of foreclosures increased from 4 percent for level to 10 percent for rolling lands. The percentages of loans foreclosed was in inverse ratio to the borrower's equity.

In a study of delinquency of farm real estate in Kansas, Howe [5] found that the total tax delinquency in 1931 was over 234 percent greater than in 1928, that tax sales during the period increased nearly 495 percent, that the number of properties sold was over 540 percent, and that the number of acres sold was over 508 percent.

Kohlmeyer, Van Hay, and Kessler [6] in an analysis of the relation of school fund mortgage loans and losses to land use in one township of a

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3/ W. O. Hedrick, Farm Tax Delinquency in Michigan for 1928-1932, Special Agricultural Experiment Station Bulletin, No. 264,(Oct. 1935) East Lansing, Michigan.

4/ E. H. Mereness, Farm Mortgage Loan Experiences in Southeast Alabama, Agricultural Experiment Station Bulletin No. 242, (Jan. 1935) Auburn, Alabama.

5/ H. Howe, The Delinquency of Farm Real Estate in Kansas, 1928-1933, Agricultural Experiment Station Circular No. 186 (1937) Manhattan, Kansas.

6/ J. W. Kohlmeyer, S. O. Van Hay, Kessler, The School Fund Mortgage Loan Situation in Indiana with Special Reference to Land Use in Martin county, Agricultural Experiment Station Bulletin No. 422, (July 1937) Lafayette.

county in Indiana found that approximately 20 percent of the school fund mortgage money loaned was lost in Martin county for the period 1844 to 1936. In the township studied an average of 99.9 percent of the original principal was lost on foreclosures on land classed as unfit for agriculture. Since 1900, the allocation of funds has been approximately twice as great to poor land counties as to better land counties. The authors recommend that these loans be stopped, that the funds be returned to the state and invested in bonds.

Craig and Hall 7/ in a study of tax-forfeited lands in four representative counties in Arkansas discuss the use of the land, tenure of operator, forest type, character of the land, accessibility to market, school, etc., and the assessed valuation and taxes as of the last assessment as well as general conditions in the State - forest types, ownership, and tax delinquency. They make recommendations for types of surveys, revision of tax laws and practices, and demonstration and extension work in forestry needed to effect improvement in the forest land delinquency situation.

7/ R. B. Craig and O. J. Hall, Tax Delinquency for Forest Land in Arkansas, 1932-1933, Agricultural Experiment Station Bulletin No. 340, (June 1937) Fayetteville, Arkansas.

CHAPTER I

INTRODUCTION

The significance of an economic analysis of this designated "submarginal" area lies in the association of such factors as land transfers, size of farms, mortgage record, tax delinquencies, appraised and assessed values with alterations in social and economic institutions. Owners of land dispose of it willingly, either because they wish to retire or desire to change the type of enterprise in which they are engaged. They dispose of it unwillingly, or by compulsion, as a result of failure to pay obligations on their land in the form of taxes or interest and principal payments on loans.

When prices of farm produce rise, public interest in land purchase increases. While this condition exists, rural people move up the agricultural ladder from laborer to tenant, and from tenant to owner. Many purchasers, however, assume top-heavy financial obligations in order to share the large profits being obtained from farm produce. This increased demand on the part of farmers and investors in land results in land prices rising to such a level that the produce from the land will no longer pay for the farming operations and for payments on taxes and interest and principal payments on loans. This situation, in turn, causes real estate prices to decline.

If payments are discontinued and the legal time is allowed to elapse, foreclosures and tax sales occur with a loss to the land purchaser who may only have an equity in the land. In many cases there is also a loss to the investor who financed the purchase, since foreclosures and tax sales are followed by further decreases in land prices. This price decline

continues until a more equitable balance is reached between income from the land and prices of the land.

The land transfers and related data for the 51 tracts of land chosen by lot for study represent a 6 percent sample of the total number of farms, and a 7.5 percent sample of the total land proposed for purchase in the project area. This sample has been studied and the findings presented in this paper.

Data and Procedure

The methods used in this study naturally fall into two sections: first, that method associated with the historical background of the economic problem; and second, that method which treats of sample data by dealing directly with economic aspects.

In the analysis of the historical data, a compilation of general facts contributing to the history of the area was made with special attention to the expansion and decline of the lumber industry. There will be analyses of personal interviews with pioneer residents of the area, including farm owners and tenants, doctors, lawyers, teachers, lumber-jacks, and railroad employees. This general information, together with the author's personal knowledge of the area, facilitates the analysis of the problem. 8/ Other facts include the systematic organization and presentation of data selected from sources such as: Forest Service Release,

8/ The writer's home was located in the project area from 1915 to 1928 during which time he became acquainted with the forest and agricultural problems. In 1939 the writer was employed as planning specialist for the Land Utilization Project, which is the area considered in this study.

Number 37, [9] Forest Service Occasional Paper, No. 80, [10] Preliminary Forest Report on Land Utilization Project, No. L. U. OK 39-24, [11] Oklahoma Experiment Station Miscellaneous Paper, [12] Preliminary Report of the Oklahoma State Planning Board, 1936, [13] and the McCurtain County Land Utilization Project Proposal. [14] This project proposal is of considerable value to the present study in that it is the basic data on which the project was established. Because this proposal is rather extensive in relation to the project, it makes available information relative to the present situation within the problem area and provides a limited supply of data pertinent to the specific problem within the proposed project. The proposals advanced in this study, which are expected to free the perplexing economic difficulties, appear to be based on assumptions deduced from data representing, however, the entire problem area rather than on data representing only the project selected.

9/ I. F. Eldridge, Southern Forest Survey Report, Forest Service Release No. 37,(Oct. 18, 1938) Southern Forest Experiment Station, United States Department of Agriculture, New Orleans, Louisiana.

10/ Ronald B. Craig, The Extent of Long-Term Tax Delinquency in Certain Oklahoma Counties, Occasional Paper No. 80, Southern Forest Experiment Station, United States Department of Agriculture, New Orleans, Louisiana.

11/ Roy A. Nay, Preliminary Forest Report of Land Utilization Project L.U. OK 39-24, (Nov. 1939) Soil Conservation Service Division of Land Utilization, United States Department of Agriculture, Fort Worth, Texas.

12/ Meredith F. Burrill, A Socio-Economic Atlas of Oklahoma. Oklahoma Experiment Station Miscellaneous Paper, June 1936, Oklahoma Experiment Station, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

13/ Facts and Findings Pertaining to Physical, Social,and Economic Conditions which Are Essential to Comprehensive State Planning for Oklahoma, 1936, Oklahoma State Planning Board, State Capitol, Oklahoma City, Okla.

14/ Project Proposal for McCurtain County Land Utilization Project by United States Department of Agriculture, (Nov. 4, 1938) Soil Conservation Service, Division of Land Utilization, Washington, D. C.

The data mentioned are either directly related to the area studied or embody statistically representation of the area with respect to size of sample and factors studied which compare favorably to the basic factors considered essential in this study.

Trends in acreage, production, prices, and estimated gross value from major crops accompanied by numbers, prices, and gross value from major classes of livestock, based on the United States Census of Agriculture from 1910 to 1935 have been presented. Additional indications of trends in numbers or principal classes of livestock as shown by county assessor's reports obtained from K. D. Blood, Agricultural Statistician, United States Department of Agriculture, were used to interpolate inter-Census data. (Appendix I.) The annual ginnings of cotton in McCurtain county for the years 1910-1939, obtained from the same source, were used as a check on production trends of cotton as shown by Census data. Data from the Census of Agriculture reports, including number of farms, total acres in farms, acres in crop land, acres in pasture and woodland were compared for the Census periods from 1910 to 1935 to indicate general trends in total land in farms, size of farms, and land use.

The State price indexes for principal crops and classes of livestock for the years 1910 to 1939, as shown in a recent Oklahoma Experiment Station Bulletin, are included for analysis so that the reader may visualize changes in the agricultural situation during the period. 15/ Justification of the use of these data in application to the area studied

15/ Trimble R. Hedges and K. D. Blood, Oklahoma Farm Price Statistics, 1910-1938, Experiment Station Bulletin No. 238, Agricultural Experiment Station, Stillwater, Oklahoma. Also, Current Farm Economics, Vol. 13, Nos. 1 and 2, Series 49. Stillwater, Oklahoma (Feb. to April, 1940) pp. 43-44.

lies in the assumption that national and international determination of prices of these products makes these indexes relatively comparable to general trends in crops and livestock values in the county. For example, the trends of corn, cotton, cattle, and hog prices substantiate this assumption. A comparison of county, state, and national production of these items for the Census periods from 1910 to 1935 shows a high positive relationship of directional changes between county, state, and national prices. These prices are therefore considered reliable in studying general agricultural trends in McCurtain county. Acreages of crops and numbers of livestock together with prices of each are used to calculate gross value of these enterprises; gross value, in turn, is used as an index of net farm income in the area.

The second division of this study of economic analysis treats with the sample data. These data include number, dates, and kinds of transfers with mortgage record embracing number, date of instrument, date of release and foreclosures taken from the McCurtain county records in the office of the county clerk at Idabel, Oklahoma. Assessed values of land and improvements used in this study were also obtained from the county assessor's records in the county court house at Idabel, Oklahoma. (See Appendix II for items included in the sample.) These items were tabulated for fifty-one farms located in the project area and summarized with respect to present land utilization and size of farms. These data were studied to determine the interrelationships of present land utilization, taxes, appraised and assessed values, mortgage record, and size of farm. In conclusion, an attempt has been made to show cause and effect relationships between these factors as they influence the economic status of the area.

CHAPTER II

HISTORY AND DESCRIPTION OF SURVEY AREA

A brief look at the history of the area may serve as an introduction to the problem of economic adjustment. Congress in 1855 designated the Indian Territory for the Choctaw nation. The Choctaw nation includes all the area within the following boundary:

> "From a point where the Arkansas River crosses the Arkansas State line and extending west along the Arkansas River to the mouth of the South Canadian River and west along this river to a point where a line extending south from the river will pass between sections 3 and 4, township 4 north, range 8 east and continuing to the intersection with the Island Bayou thence along the Bayou to Red River and east along Red River to the Arkansas State line and north along this line to the point of beginning." 16/

The following counties now comprise the former territory: Haskell, LeFlore, Latimer, Pushmataha, Choctaw, and McCurtain, and parts of Pittsburg, Atoka, and Bryan. Within McCurtain county is the particular area for this study. McCurtain county has a total area of 1,214,080 acres,17/ ranking third in total area with other counties in the State.

Located in McCurtain county is the "Land Utilization Project Number L.U. OK, 39-42" which is described as beginning at a point where the south bank of Little river crosses the Arkansas-Oklahoma State line and extending west along Little river to the point where it crosses the section line running north and south between Range 24 east and Range 25 east. The boundary then extends south along this line to a point located at the southeast corner of Section 1, Township 8 south, and Range 24 east at which point the boundary extends west six miles to the range line between

16/ Map of Indian Territory compiled by Chief Law and Land Division Indian Bureau under supervision of the Commissioner of Indian Affairs Department of Interior, Washington, D. C. 1889.

17/ Fifteenth Census of the United States 1930, Agriculture, Oklahoma Statistics by Counties, 1st Series.

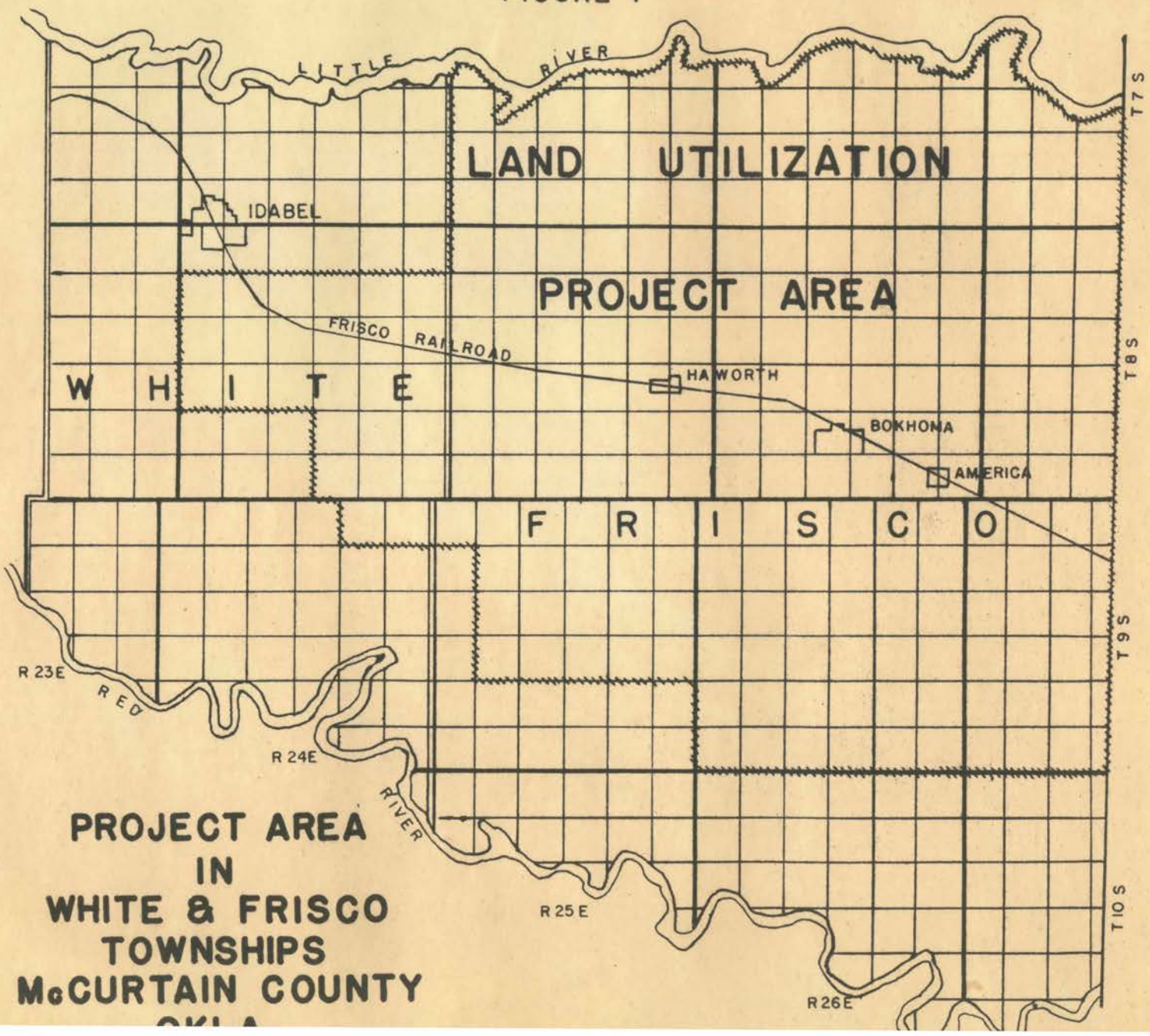
Range 23 and 24 east of the Indian Meridian. From this point the boundary extends south three miles, east three miles, south two miles, east one-half mile, south one mile, east three miles, south three miles, east five miles, south two miles, then east to the Arkansas-Oklahoma State line. From this location the boundary follows the Arkansas-Oklahoma State line north to the point of beginning. (Figure 1.)

The area studied includes approximately 158,000 acres; and, as shown by the original United States Geological Survey made in 1898, 18/ there were 81 farms with an estimated acreage of 2,835 acres of cultivated land at the time this survey was made. At this date there was no open pasture land. This survey reveals only 61 farm homes in the area, with all land other than crop land being dense forest.

During the period 1900 to 1910 the area was being settled by sturdy, adventurous families in search of free lands and locations where more extensive enterprise could be developed. These pioneers came from Arkansas, Louisiana, Mississippi, Tennessee, Alabama, and Georgia. Most of them were people of good character and possessed of a determination to better their economic condition, but this group was followed by the usual lawless element of a frontier. Soon after the arrival of the early settlers, people in other parts of the country realized that the area possessed a large supply of virgin timber, both pine and hardwoods. This knowledge resulted in the establishment of sawmills in and near the

18/ Taken from photostatic plats of the area surveyed, on file in the Land Utilization office, United States Department of Agriculture, Soil Conservation Service, Idabel, Oklahoma. The Department of the Interior, Washington, D. C., supervised the Geological Survey made in 1898. The permanent records are on file in the United States General Land office, Washington, D. C.

FIGURE I



PROJECT AREA IN WHITE & FRISCO TOWNSHIPS McCURTAIN COUNTY OKLA.

area. The first of these sawmills was imported from Louisiana in 1910 and located on the branch line of the Frisco Railroad about half way between the town of Idabel and the Arkansas-Oklahoma State line. The place was later called Bokhoma. 19/ This mill was imported by Sam Scratch, of Atoka, Oklahoma, and by 1916 it had changed ownership four times. In 1916 it was bought by the Ingram Wilson Lumber Company after Ingram had constructed a water supply for a new mill at America, Oklahoma, only four miles to the east of the Bokhoma Mill. The mill was operated under this ownership until 1921 when it was moved from the area. After the establishment of the mill at Bokhoma, the Dierks Lumber and Coal Company of Dierks, Arkansas established three large saw mills at De-Queen, Arkansas, Broken Bow, and Wright City, Oklahoma.

As indicated by the sources investigated, the entire area, including a large percentage of McCurtain county, was covered with an abundant growth of shortleaf-loblolly pine and hardwoods. The pine ranged up to six feet d.b.h.20/ with a uniform growth over the area. The hardwoods, including oak, gum, sycamore, hickory, elm, and maple, at this early date ranged probably higher in d.b.h.; however, there was little uniformity, since the hardwood areas were not covered with a good stand. The shortleaf-loblolly pine stand and d.b.h. are indicated by the pine timber cut in the State of Oklahoma by the Dierks Lumber and Coal Company

19/ The history presented is the result of personal interviews with early settlers, together with questionnaires answered by the first judge in the county, a doctor who was in the employ of the mill when it was in operation, and a locomotive engineer employed by the mill who remained in the area after the mill was moved. The above data is supplemented with the writer's personal knowledge of the area after 1916 which was the year the writer moved to the area.

20/ D.b.h. - diameter at breast high, as used by the United States Forest Service, Preliminary Forest Report, Land Utilization Project, Idabel, Oklahoma.

in the area studied. The production on a large part of the tracts was 20,000 board feet per acre. 21/

Between 1910 and 1921 all of the virgin pine timber within the area was felled, except for a few very small tracts where owners could not be located, or refused to sell to the mill. These individuals soon felt they had lost money by not selling; and, as small mills moved in, the small tracts of virgin timber were sold, completing the harvesting of entire acreage of pine within the project area. During the period following the removal of the sawmill at Bokhoma, it was estimated that approximately 20 percent 22/ of the employees remained in the area establishing farm homes and endeavoring to obtain a livelihood by crop and livestock farming of the once wooded area.

The fallacious economic picture, presented to these mill workers during the time most of the present crop land was brought into cultivation, had indicated that the farmers were receiving a superabundant income from both crops and livestock. (Tables in Appendix.) These figures represented farming as a natural and stable enterprise in which one could easily establish himself with the aid of a loan from the eastern investors operating through local agencies. The natural conclusion drawn was that prices of agricultural products would provide a margin of profit from the lands sufficient to pay the 10 percent interest charged for the loan, pay the principal, and leave a reserve large enough to maintain an adequate standard of living as well as a savings.

21/ Personal interview with John Craig, an employee of the Choctaw Lumber Company, BrokenBow, Oklahoma.

22/ See Footnote 19.

In 1919, when it became evident that the mill would close down, farming in the area was very profitable because of high prices occasioned by World War demands and the ease with which money could be obtained through loans. These prices had not yet decreased, partly as a result of over-confidence of the American markets. Moreover, the high productivity of these soils, occasioned by the fact that they were rich in humus and organic matter and had ample rainfall, indicated that the farmer was on a sound economic basis. But this encouraging picture was misleading and based on a lack of knowledge of actual soil conditions. The soils in the area studied, Norfork, Orangeburg, and Susquehanna, are, in fact, all subject to high erodibility. 23/ When these soil factors, along with the economic distress caused by depreciated values of farm produce in 1920 and 1921 are considered, it is not difficult to see why the farmers were losing money in operation as well as failing to make interest and principal payments on loans made during more prosperous times.

With the proper administration and protection the forest area not subjected to cultivation should be well on its way to another harvest. 24/ It is estimated that during the last 20 years loblolly pine in the area has made a growth of 10.42 inches in diameter. This amount of growth on stock that was slightly under cutting dimensions when the sawmill moved

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23/ Oklahoma State Planning Board Preliminary Report of 1936, State Capitol, Oklahoma City, Oklahoma, p. 35. Also, Soils Classifications obtained from Dr. H. J. Harper, Professor of Soils, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

24/ Preliminary Forest Report by Roy Nay, Forester, Land Utilization Division, Idabel, Oklahoma.

out of the area would normally indicate that the area is rapidly approaching the second harvest. But the fact is that because the people who remained in the area were forced to continue harvesting the timber as fast as it reached merchantable size to extract an existence from the land, by making ties of the hardwood trees, selling to small portable sawmills all the pine that would square 6" x 6" or above, and marketing all select poles with a diameter of four inches or above in the form of fence posts, mining props, piling, and telephone poles - all that remained was undesirable stock.

This situation was aggravated by the influx of transient families who established themselves in this area and harvested the timber in the form of ties, posts, and poles without regard to the ownership of open lands. These families usually moved into the area during the months of November and December, spent the winter and spring between seasonal labor periods, and preyed on the timber resources for part of their living, the rest of which they drew from relief agencies.

In addition to the factors mentioned as contributing causes of depressed conditions of these forest lands, other factors such as the lack of protective measures either on the part of the individual or government toward the prevention of forest fires, toward timber stand improvement, and toward establishing harvesting plans prevent the land from producing at its maximum capacity. At the same time small tracts of rolling forest land have been cleared, cultivated a few years, and abandoned. Such a procedure leaves the soil in a badly eroded condition which is unfavorable to reforestation.

To summarize, here is an area with its only natural enterprise - forestry - completely depleted and no attempt being made to reestablish

it. The same condition exists within the area with respect to agriculture. The soil types are such that depletion is high enough to cause the abandonment of practically all cultivated land by 1930. The livestock industry, which is dependent on grazing land, has never been extensive enough in the area to be considered a major enterprise, because the open range was forest or cut-over land on which grasses were very low in quantity and very poor in quality.

As a result of these increasingly unstable conditions the two banks serving the area and additional territory along the Red river failed in 1924. The towns of Bokhoma and America were abandoned by 1930, and the town of Haworth declined from a population of over 1,000 during the lumbering period to approximately 400 in 1930. Schools and churches were abandoned, while school districts were consolidated. The railroad cut down the customary four passenger trains daily to an operation of one each direction daily. The freight business decreased to such an extent that one special freight a week was sufficient to handle the the business that formerly required two daily. The local freight traffic was reduced from one train each from the east and west daily to one every third day of the week.

Tax collections became so irregular that in order to operate the county government additional money was necessary. To meet this need, the excise board raised tax rates to 18 mills the statutory limit set by the State. The result was that those who could pay carried the expense of the local government, while those who could not pay, who attempted to extract a livelihood from the land, had their land taken for taxes. Still another depressing factor was the inability of land owners to pay interest and principal payments due on farm loans made during 1913 to 1923.

CHAPTER III

GENERAL AGRICULTURAL TRENDS

Trends in agriculture are fairly well indicated by changes in the number of farms, total acreage in farms, average size of farms, total crop land in farms, total grazing land in farms, and total woodland in farms. 25/ A discussion of these data and those dealing with acreage, yield, production, price and gross value of major crops (cotton and corn) grown in the county during the period from 1910 to 1939 is pertinent to this study. (See Tables in Appendix I.) Since major crops are used as an index of trends in farm income, it is also necessary that the next enterprise of importance, livestock (numbers, price, and gross value of cattle and hogs) be included.

The total number of farms in McCurtain county had increased from 1,954 farms in 1910 to 4,511 in 1920, or 131 percent increase over the 10 year period. For the five year period following 1920, there was a decrease of 145 farms in the county, and from 1925 to 1930 a further reduction of 145 was noted. Reversing the trend from 1920 to 1930, the total number of farms increased from 4,221 in 1930 to 5,092 in 1935, an increase of 871, or 20.6 per cent.

The increase in the number of farms from 1930 to 1935 may be accounted for in the type of procedure used in taking the Agricultural Census in 1935, by which all tracts of three acres or more were classed as farms. In addition to this, a possible explanation is that the Census

25/ The United States Census, 1910-20 and 1930. United States Bureau of the Census, Washington, D.C. Also, The United States Agricultural Census for 1925 and 1935, United States Department of Agriculture, Washington, D. C.

included as farmers those squatters who had moved into the county for the winter and spring, obtaining a living from cutting timber from tracts of land owned by non-resident owners and from relief.

The total land in farms as shown in Tables in Appendix has increased during each Census period, except for the period 1920 to 1925 which had a decrease of 19.3 percent. In line with the general economic trend in the county, the decrease in size of farms from 70.5 in 1910 to 69.4 acres in 1920, and 57.9 acres in 1925, the slight increase to 60 acres in 1930, and to 61.5 acres in 1935 make apparent the fact that the average size of farms during and following the agricultural depression in 1920 and 1921 decreased.

With the increase in number of farms there has been an increase in total land in farms for the county. These increases are comparable since the percentage change in numbers of farms during any period is usually accompanied by a similar change in total land in farms. The general trend in size of farms showed a decrease from 1910 to 1925 with a slight increase for 1930 and 1935. This slight increase may be explained by the fact that the more stable owners established on the better tracts, purchasing small adjoining tracts in order to keep their farming units large enough to produce a living.

The total crop land in McCurtain county increased from 61,002 acres in 1910 to 160,877 acres in 1920, a change of 163.7 percent for the period. For the period 1920 to 1925 there was a decrease in crop land from 160,870 acres to 143,759 acres, which is a 10.6 decrease. This was due, partially, to social and economic factors, including the decreased returns from agriculture in the form of decreased yields and prices, and the opportunities

existing outside agriculture. The absence of a further decline in crop land during this period and the period from 1925 to 1935 is most likely a result of the farmer's inability to liquidate his investment in equipment and livestock, as well as to liquidate his equity in land, without being subjected to distressing losses. The total crop land increased 4.9 percent from 1925 to 1930, and 7.6 percent from 1930 to 1935. (Tables in Appendix I.)

For changes in grazing land very little can be said concerning any of the period earlier than 1920, except that before 1910 there was very little grazing land. Probably as late as 1915 there was little grazing land because all such land had to be cleared before it would produce enough grass to be classed as grazing land. Since the land cleared was more productive in crops than livestock, farmers restricted their acreages to crop production. Since 1920, however, grazing land increased. Two things seem responsible for this increase; they are: first, the failure of agriculture to pay profits because of low prices, and second, the inability of the land to produce. These factors caused land to be taken out of crop production and allowed to revert to grazing. This led to an increase of livestock production.

Total grazing land in McCurtain county increased 98 percent from 1910 to 1920 as indicated in Tables in Appendix I. 26/ For the period from 1920 to 1925, grazing land in the county increased from 9,509 acres to 77,577 acres, or a percentage increase of 715.8 percent. For the period 1925 to 1930, total grazing land decreased from 77,577 acres to 60,047

26/ The total grazing land and woodland for 1910 was estimated on the basis of percentage distribution found in 1920. This estimate of grazing land is likely too high, while the estimate for woodland is too low; but it is thought that these figures lend aid in following the general trend in grazing and woodlands. Same as Table Appendix I.

acres, or 22.6 percent. During 1930 to 1935, there was another increase from 60,047 acres to 85,002 acres, a 41.6 percent increase in total grazing land.

Woodland in farms increased 98 percent, or from 72,020 acres to 142,632 acres during 1910 to 1920. [27] Following this period there was a decrease from 142,632 acres in 1920, to 9,805 acres in 1925. This decrease, as well as the large increase in 1920 appears unreasonable, although they are totals taken from United States Census reports. For the period 1925 to 1930, the total acreage of woodland increased from 9,805 acres to 29,532 acres, or a percentage increase of 201.2 percent. During 1930 to 1935 the acreage increased from 29,532 acres to 47,971 acres, a 62.4 percent increase. (See Tables in Appendix I.)

An analysis of the woodland data is hardly worth including, except for the period there was an increase in the converting of woodland into farm land. The data for 1920 indicate a large acreage classified as woodland, and the grazing land acreage for the same Census report is extremely low. [28] The explanation of the general increase from 1925 to 1935 is based on the increase of acreage in crop land and the trend in acreage of grazing land which contains all the abandoned crop land. These figures show a definite drop in acreage in 1930, as compared with 1925, and an increase of 41.6 percent in 1935 over 1930. From interviews and personal knowledge of the farming practices after 1916, it is the opinion of the writer that the abandonment of crop land has continued steadily from 1920 to 1939.

27/ The United States Census, Op. cit.

28/ Ibid.

It seems rather probable that none of the abandoned crop land had been unused long enough to have reestablished sufficiently heavy timber growth to justify its being classified as woodland until after 1925. After 1925, it would seem likely that a considerable amount of abandoned land had returned to forest and no longer carried the classification of grazing land, but was classified as woodland. If this reasoning is correct, the conclusion may be drawn that the increase in woodland on farms, as of 1930 and 1935, is partially due to the inability of the land to pay production costs and a profit. It seems reasonable to assume that the land would be abandoned as during earlier periods and later become reforested. This would, in time, cause the total woodland for these periods to increase.

To summarize, Table VII (See Appendix I) the total number of farms is larger in 1935 than for any previous period. The total acreage in farms increased in 1920, decreased from 1920 to 1935, held fairly constant from 1925 to 1930, and increased from 1930 to 1935, returning to a figure slightly above the 1920 acreage in farms.

Crop land increased until 1920, decreased 10.6 percent from 1920 to 1925; then increased until 1935 when the total was larger than in 1920. The rate of increase of crop land over total land in the sample was found to be decreasing, beginning with a differential of 7 percent increase from 1910 to 1920, a 6 percent increase from 1920 to 1925, a 3 percent increase from 1925 to 1930, and an 8 percent decrease from 1930 to 1935.

Grazing land, for which the data available was insufficient for the period 1910, shows a definite increase for 1920 to 1925, with a slight decrease (7 percent) in total acreage from 1925 to 1930, and an increase (3 percent) from 1930 to 1935. The rate of change in the proportion of grazing land to total land was a 4 percent decrease for the period 1925

to 1930 and an increase of 3 percent from 1930 to 1935.

Apparently the total number of farms and the total acreage in farms were increasing. While these increased, crop land was decreasing and more land was being given to grazing land and woodland.

Further analysis of trends in the major agricultural enterprises for the county have been made. In dealing with these enterprises, cattle, hogs, cotton, and corn, the changes in production, price, and gross value of cotton and corn for the same period were noted, all of which are comparable with the sample data in this study. In studying the general trend in numbers, prices, and gross value of cattle and hogs in McCurtain county, it was necessary to calculate representative estimates of numbers of each for the years between the United States Census reports and for the years 1936 to 1939. The methods used in this procedure will be found in Appendix I.

Cattle. The index numbers of production of cattle as shown by the total number of cattle on farms for the years 1910 to 1939 indicate the usual cyclical trends in numbers for the period. The indexes also indicate that the cattle business has not increased in proportion to the increase in number of farms or the total acreage in farms in McCurtain county, since the high index of production in 1937 is slightly higher than the index in 1919. The index numbers for the years 1926 to 1932 are considerably lower than the 1910 to 1914 average which is the base used in calculating the indexes. Apparently with the general increase in number of farms and acreage in farms there has been a corresponding increase in population within the county. By deduction, one may conclude that with the same number of enterprises on the new farms there should be a corresponding increase in numbers of total cattle on all farms for the period studied. From these deductions it is evident that the cattle industry has,

relatively speaking, been losing ground since 1920. (See Tables Appendix I.)

Hogs. The trend in production of hogs as indicated by indexes of numbers for the period 1910 to 1939 shows hog production increasing until 1920; after this time a relative decline in numbers continued until 1939. The decline reached an index of 52 in 1939; the highest index during this time was 100. Considering the general increase expected as a result of increased number of farms and total acreage in farms, the total number of hogs in the county during the last 20 years indicates a definite decline in hog production. (See Appendix I.)

Cotton. A consideration of the general trend in the production of crops based on the production of major crops (cotton and corn) in the county for the period 1910 to 1939 shows that indexes of production for cotton continued to increase through 1925, but have declined for the last ten years. Farmers in this area apparently attempted to improve their financial condition after 1920 by increasing the acreage planted to cotton. They continued this practice until 1926 when national and world surpluses, together with decreased yields and price, forced a curtailment of production. The fact that the indexes of production from 1926 to 1932 are higher than in 1926, or higher than the average for the base period, indicates that the production of cotton in the county was increasing faster than the number of farms or the total land in farms. For the period following 1932 the program of the Agricultural Adjustment Administration caused cotton production to decrease as a result of decreasing acreage planted. Cotton production would have tended normally to increase except for forced acreage control administered by the Agricultural Adjustment Administration /and decreased yields resulting from depleted soils. As a result of these

two forces, cotton production is smaller than would have been expected. (See Appendix I.)

Corn. The indexes of production of corn increased from 1910 to 1921 and decreased the next five years. Following 1927 corn production increased in the county until 1933, then declined again. The last three years of the period studied, corn production increased substantially. Over the entire period corn has shown an increase in production trend, but until 1936 when cotton acreage was restricted the trend upward was not pronounced. Likely, after the adjustment of the acreage control program affecting all surplus producing crops there will be the same minor trend upward in corn production as was indicated by indexes for the period immediately preceding the administration of the Agricultural Adjustment Act. (See Appendix I.)

Prices

The prices used for the period 1910 to 1939 are studied to determine the trend in prices of cattle, hogs, cotton, and corn. From the analysis of the indexes of these prices based on the 1910 to 1914 average compared with the purchasing power of these prices in relation to items of consumption, a relative stability in comparison with other prices may be noted except for the period from 1930 to 1939. 29/ The price of cattle became critical in 1933-1934, due partially to generally depressed economic conditions as well as a shortage in feed crops for 1932, 1933, and 1934. This decline was checked in 1934 by government purchase and slaughter of large numbers of cattle that were starving. As a result prices of cattle rose in

29/ Trimble R. Hedges and K. D.Blood, Op. cit., pp. 46,52,61,65,82,88,97,101. Also, Current Farm Economics, Op. cit.

1935 and continued slightly above the 1910-1914 average until 1939. About the same situation accompanied the Corn-Hog program in 1933-1934 with respect to prices of hogs during 1931 to 1935. The price indexes for cotton from 1931 to 1939 were extremely low as a result of high world production for the ten years preceding. This decline in price was checked by the administration of the Agricultural Adjustment Act of 1933 which began to influence cotton prices in 1933 and 1934. Oklahoma farm price indexes for corn have followed very closely the 1910 to 1914 average except during the World War when corn prices along with other commodities rose to high levels. The price indexes were changed partially by the shortage of feed crops in 1934 and 1935, together with the effects of the Corn-Hog program placed in operation in 1934. (See Appendix I.)

Gross Values

The gross farm values from the enterprises considered in this analysis as shown by the indexes have followed a general trend upward until 1920 when all prices and production declined. After 1920 these gross values declined suddenly, with further decline from 1928 to 1934. In 1935 the gross value of cattle more than doubled as a result of the cattle killing program and heavy marketings in 1934. From 1935 to 1939 the indexes indicate gross value standing more than 200 percent of the 1910 to 1914 average. Following 1920 the indexes of gross value of hogs declined to a lower level than the 1910-1914 average and has remained below the average, except for the year 1928 when it reached an index of 117. The general trend of hog prices was downward from 1920 to an index of 19 in 1935, however, as an effect of the Corn-Hog program, gross values rose to an index of 64. Following this increase in 1935, 1936, 1937 values declined to an index of 37.

For the period following 1921 the index of gross value of cotton suddenly increased until in 1925 it reached the peak of the 30 years studied. After 1925 the gross value continued to decline until 1933 when the effect of the Agricultural Adjustment program caused values to increase slightly. Values fluctuated until 1938; then, a further decline brought values to an index of 91 for the year 1939. Gross value of cotton has followed a decline since 1925, partially due to what is commonly called "over-production", which is the effect of national and international surpluses and the effect of other factors on prices and production.

The index of gross value of corn for the period 1921 to 1939 has been relatively stable showing fluctuations for only short periods with the index for 1939 remaining relatively close to the 1910 to 1914 average.

The index of total gross value (as indicated by the total value of cattle, hogs, cotton, and corn for McCurtain county) indicates that the total gross value of the aforementioned four agricultural enterprises in McCurtain county has increased along with the increase in total number of farms, total acreage in farms, and total acreage in crop land until 1920. From 1921 to 1932, however, the general trend has been toward decreasing values. The administration of the Agricultural Adjustment Act of 1933 and 1934 brought a considerable increase in total values of these enterprises from 1935 to 1939.

Generally, after 1920 the movement of agricultural values has failed to keep pace with the increase in number of farms, or the increase in total land in farms, both of which are associated with a relative increase in population. Because this increase in population, in number of farms, in total land in farms, was accompanied by relatively no decrease in size of farms,

the general trend in agricultural values has been downward. The basis for this conclusion is that the enterprises included in this analysis are representative of the actual trends in agriculture, and that the gross values are representative of the actual trend in farm income in the area.

CHAPTER IV

EXAMINATION OF SURVEY AREA WITH RESPECT TO SIZE OF FARMS, MORTGAGES, TAX DELINQUENCIES, APPRAISED AND ASSESSED VALUES, AND LAND TRANSFERS [30]

Size of Farm

It seems reasonable to assume that the size of farms is responsible in part for the limitation of farm income in the project area studied. The small acreage of crop land on farms, as well as the small acreage in the farm itself, has limited the earning power of the business.

There is perhaps a historical reason for the small amount of crop land. Settlers came to this area because the land was cheap. In the process of getting settled on the land and obtaining the necessary equipment and livestock, they had used most of their capital. Further improvements, such as clearing the land or fencing, therefore, were only to be had by hand labor. Since considerable time had to be devoted to work outside the farm, usually in the lumber industry, to supply the necessities not produced on the farm, there was little available labor to be used on improvements. The acreages devoted to crops were, thus, smaller than might have been expected had capital been available for the proper development of all farm units.

Schikele [31] points out that there is need for changes in land use patterns as a result of previous land use policies and practices; so it is that this study shows that land use patterns and practices need changing.

30/ For data on which this chapter is based, see Appendix II.

31/ Schikele, Op. cit.

It would be unjust to criticize these early settlers for the way they used the land, since it is possible that they made the best economic use of it, considering the time and conditions in which they lived. The problem remains that since the policies and practices of those settlers have evolved in such a way as to maladjust present land uses, further changes in land use are necessary - changes that will cause the whole area to become more productive and that will give it the qualities requisite for a more balanced living for those remaining in the area.

Examination of Size of Farm. In choosing class intervals for size of farms in this study, it was concluded that only three distinct sizes were applicable since there is a definite separation of farms in the area which includes small farms, all ranging around 40 acres, while next are the 80 acre farms, and last, those over 160 acres. It was also concluded that by choosing the intervals of 0-49, 50-159, and 160 and above, a relatively equal distribution of number of farms in all class intervals might be arrived at. Too, this distribution of class intervals lends itself readily to statistical procedures.

Table I gives the number of farms, acreage in farms, acreage in crop land, acreage in pasture land, and acreage in woodland by size of farms for the 51 farms in the project area for 1938. This table also shows the percentage distribution of each of these items by size of farm. In the sample of 51 farms there were 12 falling in the 0 to 49 acre size. This represents 24 percent of the total number of farms sampled. Another 18 farms were grouped in the 50 to 159 acre class, representing 35 percent of the total farms in the sample. Twenty-one farms falling in the group having 160 acres and above represent 41 percent of the total farms sampled. Further discussion will use the expression "group one" to refer to those sample farms falling in the 0 to 49 acre size of farm group; the expression "group-two"

TABLE I

Number of Farms, Total Acreage in Farms, Total Crop Land, Total Grazing Land, Total Woodland and Average Acreage in Farms with Percentage Distribution of Each by Size of Farm for 51 Sample Tracts Studied

Acres in farms	Number farms	Percent distribution	Total land in farms (acres)	Average acreage per farm	Percent distribution	Total crop land in farms (acres)	Percent distribution	Total grazing land in farms (acres)	Percent distribution	Total woodland in farms (acres)	Percent distribution
0- 49	12	24	360.00	30.0	6	56	7	207.00	12	27.00	3
50-159	18	35	1665.00	92.5	27	260	33	522.00	29	883.00	25
160 & over	21	41	4037.00	192.3	67	447	60	1047.69	59	2513.10	72
Total	51	100	6062.70	118.9	100	793	100	1776.69	100	3493.10	100

will be used to designate the farms falling in the 50 to 159 acre group; and those /falling in the 160 acre and above group will be mentioned as "group three" farms.

The total land in farms ranged from 360 acres in group one with an average size of 30 acres to 4,037.79 acres in group three, with an average of 192.3 acres per farm. (See Table I.)

In analysis the results in Table I indicate that the distribution of total land and crop land are proportionate to each other, since the percentages for group one, two, and three are in relation to total land, respectively, 7 percent, 33 percent, and 60 percent. (See Figure 2 and 3.) It may be noticed that group two farms have an increase of 1 percent in crop land in relation to the distribution of total land, and that group three farms have a decrease of 7 percent with respect to total land. The implications of this difference will be explained later in this paper. This means that in the sample studied there is a relatively even distribution of crop land which is not affected to any appreciable extent by size of farm. A comparison of the percentage distribution of total land, grazing land, and woodland by size of farm groups (one, two, three) are, respectively, 6, 27, and 67 percent; 12, 29, and 59 percent; and 3, 25, and 72 percent, indicating that group one farms had a larger proportion of grazing land, and group three farms a smaller proportionate amount than indicated by division of total land in each group. This difference may be explained by the fact that there are more farms in group one in relation to total land than in either of the other groups, and as land became depleted it was abandoned and later used for grazing. This is further supported in the facts presented in distribution of woodland. Group one shows only 3 percent woodland, while group two decreased 2 percent from total land; and group three increased only 5 percent indicating

that as more land was needed for crops on group one farms, the woodland on these farms suffered. When, however, the land was abandoned, it came into use again as grazing land.

The disproportion shown in this table with respect to distribution seems to be mainly in the number of farms falling in group one, compared to the other two groups. The average-sized farm in group one is 30 acres; those falling in group three have an average of 192.3 acres. Apparently the fact that 24 percent of all farms falling in group one possessed only 6 percent of the total land, 7 percent of all crop land, 12 percent of all grazing land, and only 3 percent of the total woodland is significant in this analysis. Similarly, there seems to be significance in the fact that only 41 percent of all farms have a total acreage above 160 acres. These facts will be discussed later on in the study.

Of the 51 (or 51 percent of total) farms studied, 26 were corporate owned in 1939; 14 (or 27 percent) were owned by private resident owners, and 11 (21 percent) were owned by private non-resident owners. In Table II the distribution of the 51 farms studied is given with percentages of the total in order that the relationship of corporate, private resident, and private non-resident ownerships can be easily compared.

Corporate ownership ranged twice that of private ownership, with private non-resident ownership being more than half as much as resident ownership. These farms seem to be concentrating under non-resident ownership rather than resident. In this group corporations now own almost three times as many farms as private resident owners and more than three times that owned by private non-resident owners.

Referring to Tables I and II, it may be seen that corporations are taking a heavier toll of property in group two and three than in group one,

FIGURE 2

TOTAL ACREAGE AND PERCENT DISTRIBUTION OF LAND BY USE AND SIZE OF FARM-1938

ON 51 SAMPLE FARMS IN THE PROJECT AREA

(TOTAL LAND IN EACH USE = 100%)

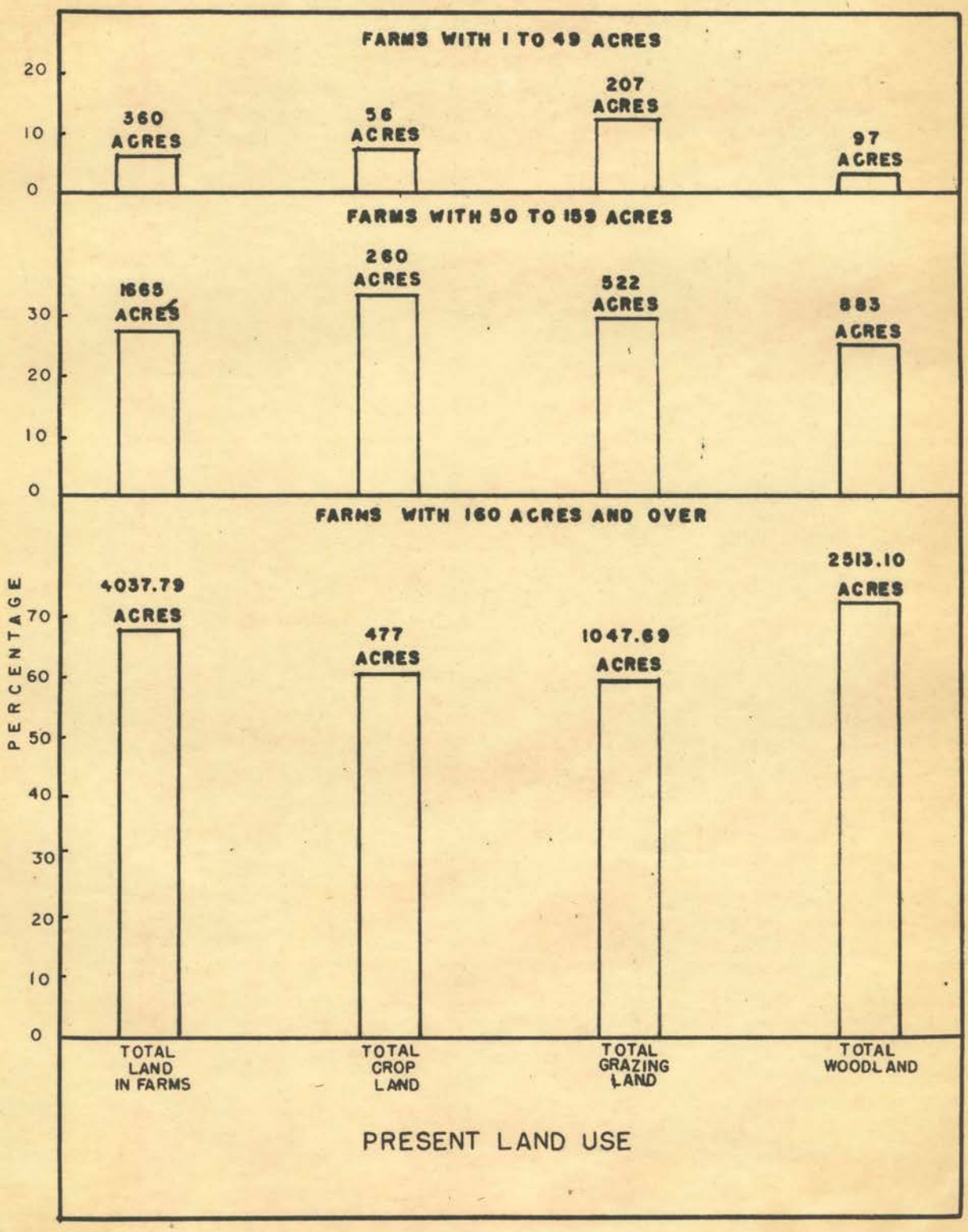


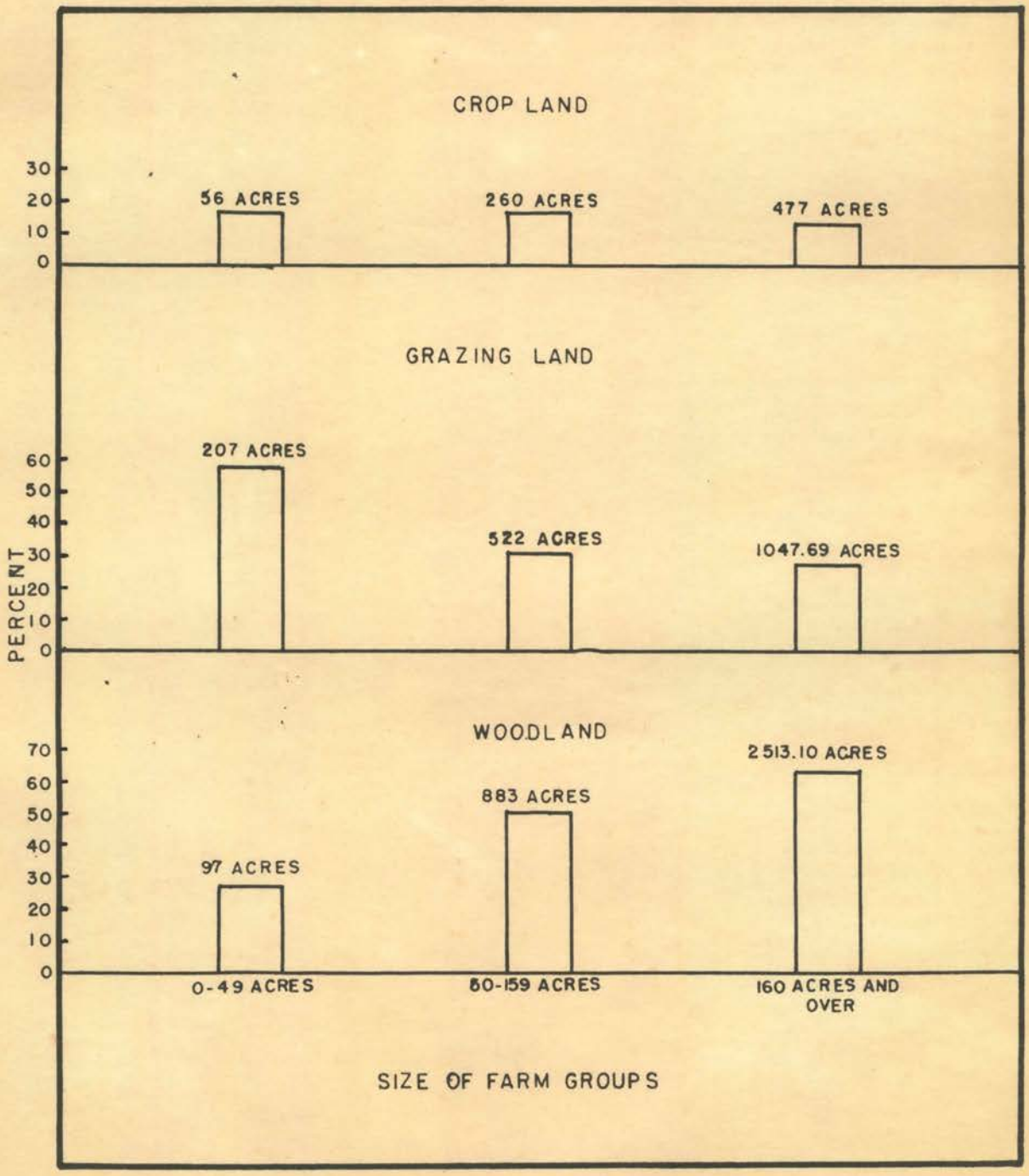
FIGURE 3

PERCENT DISTRIBUTION OF LAND

BY USE AND SIZE OF FARM

ON 51 SAMPLE FARMS IN THE PROJECT AREA

(TOTAL LAND IN EACH SIZE OF FARM GROUP=100%)



even though 24 percent of all farms are in group one. One reason for this is that these larger farms were, of course, better able to obtain loans during the time loans were being made, even though unfavorable conditions caused them later to default on mortgage payments.

TABLE II

Type of Ownership and Percent Distribution
of 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of corporate owned farms	In percent of total farms	Number private resident owned farms	In percent of total farms	Number private non-resident owned farms	In percent of total farms
0- 49	4	7.8	4	7.8	4	7.8
50-159	10	19.6	5	9.8	3	5.9
160 & over	12	23.7	5*	9.8	4	7.8
Total	26	51.1	14	27.4	11	21.5

* Two tracts owned by county shown as privately owned tracts.

These facts, assuming climatic conditions to be favorable to crops and livestock and the labor supply in the area to be adequate, form a basis for recommendations for adjustment in size of farm. When the present land use and type of ownership is considered jointly, it is evident that these farms, with a total acreage of 50 to 159 acres, have a better balance in land use than either the larger or smaller farms and have a larger proportion of resident owners living on them.

In the light of land use distribution and type of ownership, it seems just and adequate to recommend that all farms on which general farming is practiced to be/have an acreage ranging from 50 to 159 acres. With this change all farms in the area would be better balanced with respect to distribution of land according to use and the distribution of type of ownership.

Mortgages and Land Values

In view of the large number of mortgages recorded for these sample farms and the close relation between mortgages and land transfers with respect to equity in the land, the mortgage record of these tracts and its relationship to size of farm, tax delinquency, and appraised and assessed values have been studied to determine whether or not the mortgage records could account in part for the present degree of economic maladjustment. As a primary purpose this study seeks to throw light on other economic problems related to land which might be used in recommendations for adjustment. In view of this, several studies relative to mortgage records, taxes, and values are pertinent. 32/

In the present study there seems to be considerable probability that mortgage records contribute to the analysis of land transfers since there is a close relationship between these factors, especially in the process of increasing equities for large land owners and corporations and decreasing equities for private resident owners having small acreages.

The general situation indicates that large numbers of farm owner-operators are burdened with debts too large, rates too high, and terms too short to be liquidated. This results in forcing owners to become tenants, croppers, or farm laborers. 33/ Further pressure on the land is caused by the inability of young people to purchase land or find opportunities for employment in industrial centers. They are, therefore, left to increase further the competition in the lower tenure and laboring groups.

32/ See "Review of Literature," pp. iii.

33/ Report of President's Committee on Farm Tenancy, National Resources Committee, Washington, D. C., February 1937, p. 10.

The analysis of this sample makes clear the results of continuous alteration of title due to the mortgage record changes which became heavy following 1912. The changes as shown in Table III show 35 first mortgages on 12 group one farms to 52 first mortgages on the 18 group three farms from the time the property was first alloted until 1940.

TABLE III

Distribution of Mortgages by Number and Size of Farm on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Total number of farms	Percentage distribution	Number of farms mortgaged	Percentage distribution of farms mortgaged	Number of first mortgages	Percentage distribution of mortgages
0- 49	12	24	9	22	35	26
50-159	18	35	13	33	50	36
160 & over	21	41	18	45	52	38
Total	51	100	40	100	137	100

Analysis of the mortgage record indicates that relative to the distribution of farms in the size-of-farm groups, the number of farms mortgaged increased as the size of farms increased. It was also found that the number of mortgages increased as the size of farms increased. In analyzing the mortgage record within each group, it was found that group two farms had a smaller proportionate number of farms mortgaged than either group one or group three. (See Figures 4 and 5.)

The problem of unpaid taxes is related to the study of mortgages, since an increased number of mortgages and mortgage debts may affect the payment of taxes. Table IV shows that number of farms having tax delinquencies were relatively higher for group three farms than for those of group two or group one. In this problem it is apparent that the small

TABLE IV

Distribution of Mortgages and Unpaid Taxes by Size of Farm
on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Farms tax delinquent	Percent distribution	Years farms taxable	Percent distribution	Years taxes delinquent	Percent distribution	Total amount delinquent taxes (Dollars)	Percent Distribution	Total mortgage debt	Percent distribution	Mortgage debt per acre mortgaged farms
0- 49	6	21	299	24	35	19	$ 230.63	4	$ 4,127.00	7	$ 22.93
50-159	9	31	405	32	40	21	711.77	12	21,590.82	34	19.88
160 & Over	14	48	567	44	113	60	4863.38	84	37,571.00	59	12.04
Total	29	100	1271	100	188	100	5805.78	100	63,288.82	100	14.43

farms having only 6 percent of the land were burdened with 4 percent of the total tax delinquencies, while group three farms had 67 percent of the total land and 84 percent of the total burden of tax delinquency.

The distribution of tax burden is not hard to understand. By analysis, the larger the farms, the greater the tax delinquency; this follows closely the trend in mortgages. It is inevitable that as mortgages increase the burden of mortgages and taxes increases, resulting in increased delinquency in mortgages or taxes or both.

Considering the size of farms, amount of crop land, and percent of delinquency, the group one farms have done an excellent job in avoiding this burden of taxes. As shown in Tables III and IV only 9 farms of the total of 12 were mortgaged. The farms carried a mortgage load of 26 percent of all mortgages, with only 4 percent of the total delinquent taxes. This statement is not significant until investigation is made of the total mortgage debt for group one farms, which is only 7 percent of the total mortgage debt for all farms sampled. The distribution of mortgage debt, number of mortgages, and tax delinquency indicates that the small farms have been more able to meet obligations than either group two or group three farms.

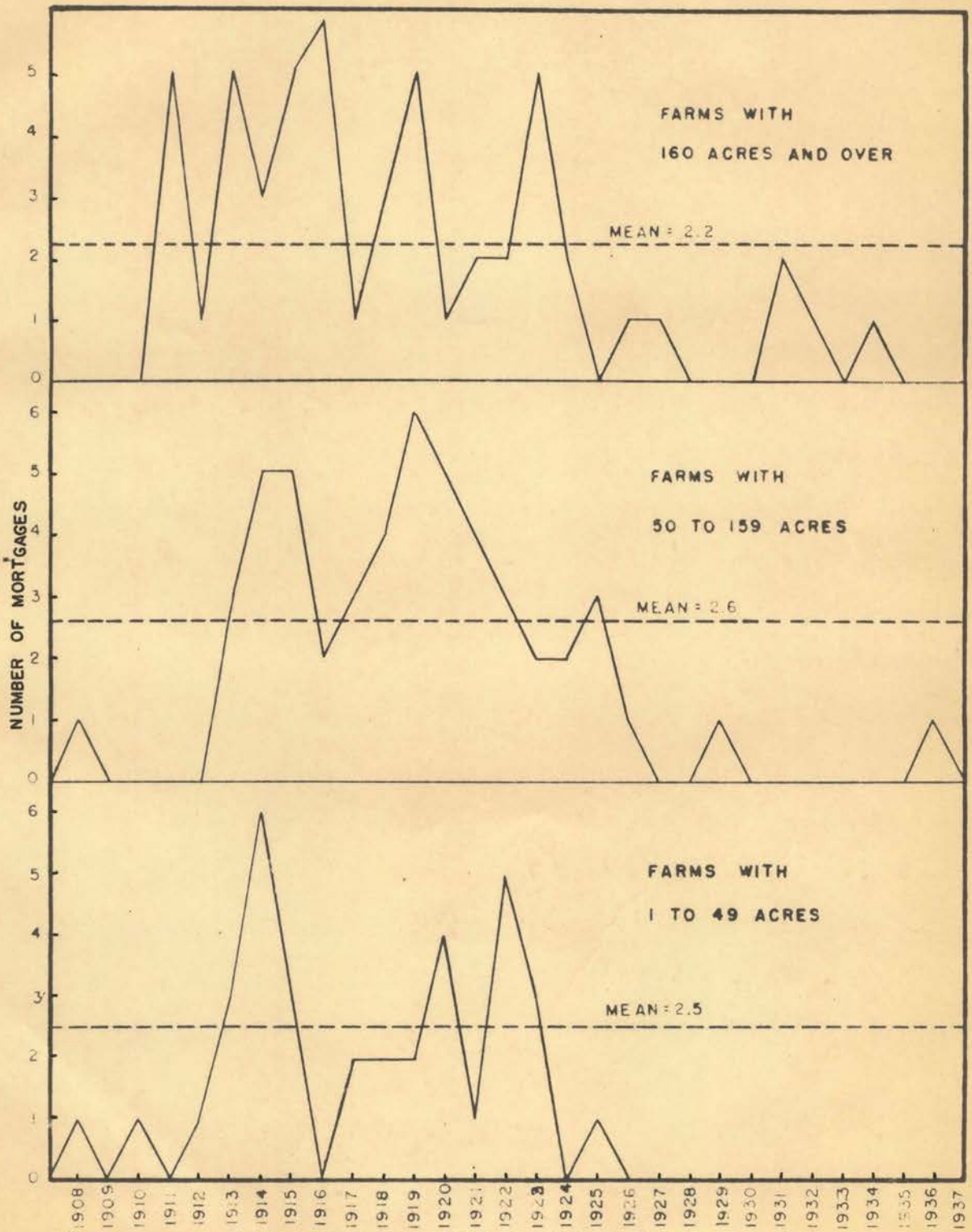
This study shows tax delinquency low for group two farms; such a fact would help to explain the greater stability of these farms. It is probable that the size and the high proportion of crop land have made proper management easier and operation more efficient. Thus, the burden of tax delinquency was limited to 12 percent of the total for all farms studied.

Group three farms (those having 160 acres and above) did not, however, enjoy the same success. The large farms were the least efficient for

FIGURE 4

NUMBER OF MORTGAGES

BY YEARS AND SIZE OF FARM 1900-1939* ON 51 SAMPLE FARMS IN THE PROJECT

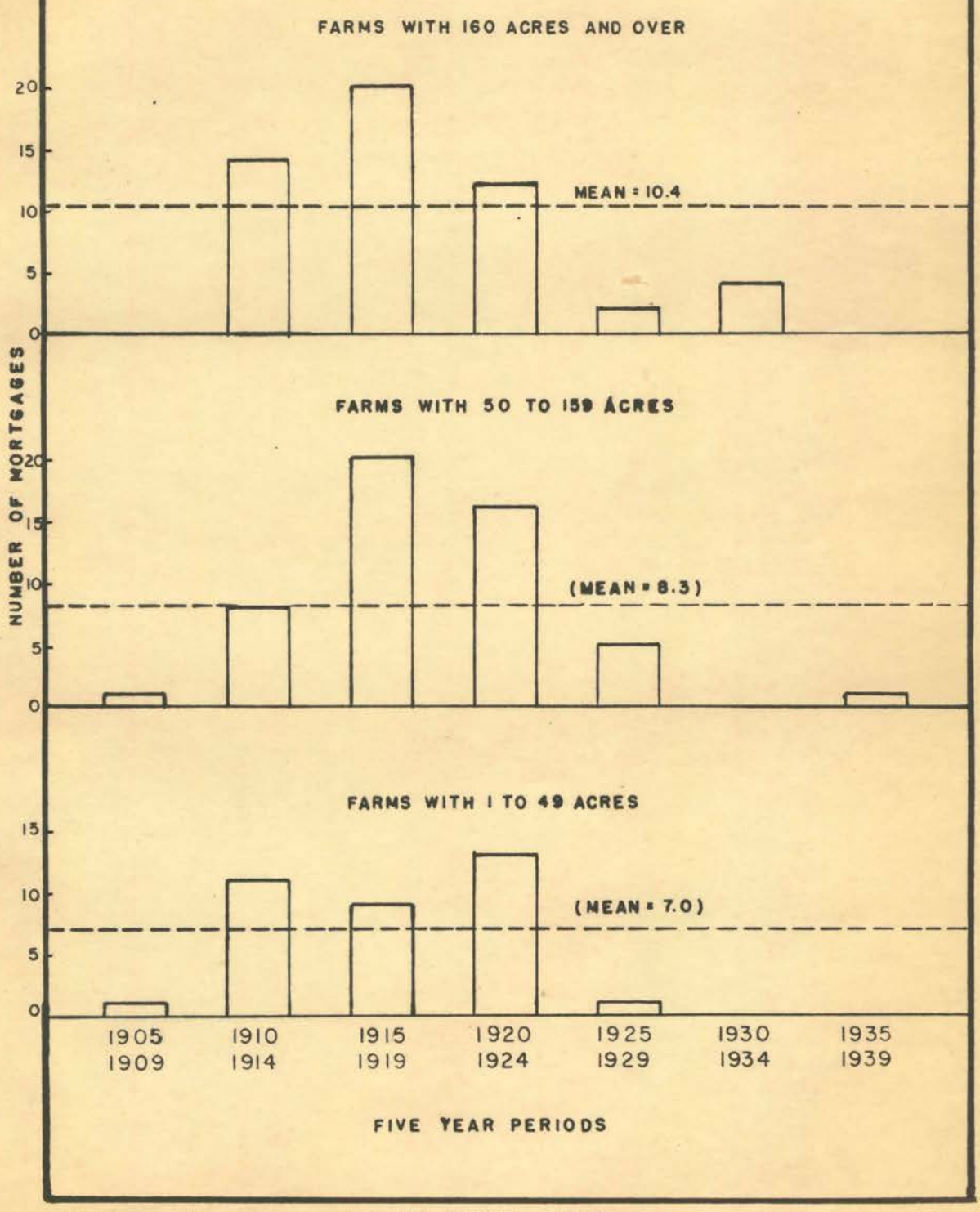


* No mortgages recorded from 1900 to 1907 and 1938 to 1939.

FIGURE 5

NUMBER OF FIRST MORTGAGES BY 5 YEAR PERIODS AND SIZE OF FARM - 1900-1939*

ON 51 SAMPLE FARMS IN THE PROJECT AREA



* No mortgages recorded for 1900 to 1904.

several reasons: first, many of them were located off the main county roads; second, practically all were operated by tenants (either on cash or crop share); third, most owners, non-resident people, were unable to obtain the better class farmers as tenants. Moreover, these farms did not have the same proportionate share of cropland as did other groups considered. The high tax burden among group three farms could mean either that the farms have been overburdened or that the owners have refused to pay taxes. When the distributions are reviewed, it is clear that these farms do not carry the heavy mortgage burden that either of the other groups is carrying; yet, their tax delinquencies are excessive.

Table V shows that these owners have declined to pay taxes, allowing the burden to increase to such an extent that 75 percent of the present appraised value of land and buildings is obligated for unpaid taxes. This percentage is comparable with 20 percent for group-two farms, and 19 percent for group-one farms.

TABLE V

The Ratio of Unpaid Taxes to Land Values in 1939 on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Ratio of Unpaid Taxes to: Assessed value of land and buildings	Appraised value of land and buildings	Assessed value of land only	Appraised value of land only
0- 49	29.1	19.1	33.3	56.7
50-159	21.5	20.0	22.6	36.2
160 & over	56.3	74.7	59.5	98.4
Total	45.5	51.4	48.3	79.3

The data in Table VI indicate that the total mortgage debt of group one farms is 198 percent of the total appraised value of all land and buildings and 231 percent of the total assessed value of these farms. This is probably due to a higher appraised value and a relatively low total mortgage debt for small farms as well as repeated attempts by these owners to get their assessments lowered by failing to assess all their improvements.

The situation is reversed among group-two farms; mortgage debt at time of foreclosure was 368 percent of the total appraised value of land and buildings, while it was 347 percent of the assessed value of all land and buildings. This means that the appraised values were lower than the assessed values and that the mortgage debt at time of foreclosure was over 3.7 times the appraised value.

On group-three farms the assessed values were somewhat higher than the appraised values. The farms mortgaged carried a mortgage load 3.6 times their appraised value. The figures in Table VI indicate that the small farms have been able to reduce their assessments more than either group two or three, and that assessments and appraised values in group two were almost the same. Group-three farms were overloaded in taxes because of high assessments compared to appraised values. The total farms sampled were overtaxed in relation to appraised values and carried a mortgage debt almost 3.5 times the appraised value of land and buildings at the time this study was made.

With such an arrangement, it is not unusual that these large farms were unable to meet tax payments. The fact that tax payments declined year after year caused an increase in rate of assessments and increased taxes paid by those who were able to pay. This rate increase was made in order

TABLE VI

Mortgage Record Summary on 51 Sample Farms in McCurtain County, Oklahoma

	Farms 0-49	Farms 50-159	Farms 160 & over	Total farms
Mean size of tract mortgage	32.60	89.40	150.40	98.00
Total acres mortgaged	1142.00	4470.00	7820.00	13,423.00
Percent distribution	9.00	33.00	58.00	100.00
Mortgage debt per acre, all land	11.46	12.97	9.30	10.44
Mortgage debt per acre, mortgaged land	22.93	19.88	12.04	14.43
Total years needed to remove all first mortgages	233.00	276.50	370.25	879.75
Percent distribution	27.00	31.00	42.00	100.00
Average number of years required to release first mortgage	6.70	5.50	7.10	6.40
Percent mortgage debt is of appraised valuation of land and buildings	198.00	368.00	366.00	347.00
Percent mortgage debt is of assessed value of land and buildings	231.00	347.00	265.00	285.00

to collect enough cash to operate county government. In the process of collecting money to operate the government, tract after tract in the area studied has beentaken for its taxes.

A comparison of the number of mortgages and the time required for their release is apt here. (See Tables VI and VII) These figures and the mean size of tracts mortgaged (groups one, two, and three, respectively) 32.6, 89.4, 150.4 acres show that the small farms have had much more difficulty repaying loans and releasing first mortgages during the period from 1900 to 1939 than have group-two farms. Group-two farms have had less difficulty for the same period than has either group one or group three farms.

Comparison may also be made between the total mortgage debt and the total appraised and assessed value of all land and buildings. These com-

TABLE VII

Distribution of Mortgages, Mortgage Debt, and Land Values by Size of Farm on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of first mortgage	Percent distribution of first mortgage	Total mortgage debt at time of foreclosure	Percent distribution of mortgage debt	Total assessed value of land and buildings	Percent distribution of assessed value of land and buildings	Total appraised value of all land and buildings	Percent distribution of appraised value of all land and buildings	Mortgage debt per acre on all farms	Mortgage debt per acre on mortgaged farms
0- 49	35	26	$ 4,127.00	7	$1,787.00	8	$ 2,088.00	12	11.46	22.93
50-159	50	36	21,590.82	32	6,230.00	28	5,873.00	32	12.97	19.88
160 & over	52	38	37,571.00	59	14,170.00	64	10,255.36	56	9.30	12.04
Total	137	100	63,288.82	100	22,187.00	100	18,215.36	100	10.44	14.43

parisons show that the mortgage debt was 198 percent of the appraised value of all land and buildings on group-one farms; for group-two farms, 368 percent; for group-three farms, 366 percent. The total mortgage debt on the 51 sample farms studied was 347 percent of the total appraised value of all land and buildings, and 285 percent of the total assessed value of all land and buildings.

The relationship of total acres mortgaged to mortgaged debt at the time of foreclosure is indicated by a comparison of their percentage distributions. Mortgage debt per acre is less on group-one farms than on group-two farms, while it is less on group-three farms than on either of the other two groups. (Tables VI and VII.) The mortgage debt per acre on mortgaged farms decreased with the increase in size of farms.

The average time required to release first mortgages was least on group-two farms and greatest on group-three farms, with an average for all farms of 6.4 years. In this study there is a trend for the time required for releasing first mortgages to increase as the size of farm increases.

Examination of these data shows that the mortgage record of these farms is closely related to tax delinquency. High mortgage debt seems to be associated with high tax delinquency, with the result that land is transferred either to the mortgagee, the county, or to the mortgagee and then to the county.

Tax Delinquency

The present tax situation as demonstrated in Table VIII indicates that the small or group-one and the larger or group-three farms have either been overburdened or are less productive than group-two farms. The 50 to

159 acre farms, which include the average for the sample studied, have a tax delinquency per acre on all farms which is slightly greater than one-half that of group-one farms and one-third as great as that of the group-three farms. This high delinquency is more obvious when compared to appraised and assessed values of lands and buildings, and to land alone.

The present high tax debt, together with the present burden for more taxes, is confiscatory in effect with regard to the farms in group one. Owners, who are unable to extract a subsistence from the land and who cannot supplement their income from other sources have nothing with which to remove the burden of taxes and mortgages from the land. (See Tables VII, VIII, and IX.)

When unpaid taxes for group-two farms were compared to assessed and appraised values of land and buildings of delinquent farms, total unpaid taxes were discovered to be 21.5 percent of the assessed value of all land and buildings, and 20 percent of the appraised value of all land and buildings. The total unpaid taxes were 22.6 percent of the assessed value of all land, but were only 36.2 percent of the appraised value of all land. It is well to note that these figures are comparable to the unpaid taxes per acre of all land in group-two farms.

Group-three farms had a relatively high degree of tax delinquency in comparison with the other two groups. Sixty-five percent of the large size farm groups is delinquent, compared to 50 percent delinquency in each of groups one and two. The 14 farms on which taxes were unpaid represented a total delinquency of 113 years out of a possible 567 years in which they were subject to taxation. (See Figure 6.) The tax delinquencies on group-three farms equalled 60 percent of all delinquencies for the 51 farms studied, while group-three had 71 percent of all delinquent land. In distribution, group-three farms had $4863.38 in unpaid taxes, which is 84 percent of all

TABLE VIII

Tax Delinquencies by Size of Farm on
51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of farms delinquent	Number of years delinquent	Total land delinquent (acres)	Total unpaid taxes	Number years taxable before first delinquency	Total number years taxable	Years taxes paid	Unpaid tax per acre (all land)	Unpaid tax per acre (all delinquent farms)
0- 49	6	35	170	$ 230.63	85	299	264	$ .64	$ 1.36
50-159	9	40	906	711.77	211	405	365	.43	.79
160 & over	14	113	2657	4863.38	213	567	454	1.20	1.83
Total	29	188	3733	5805.78	509	1271	1083	.96	1.56

TABLE IX

Ratio of Unpaid Taxes to Appraised and Assessed Values on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Unpaid taxes in percent: Appraised value of land and buildings	Unpaid taxes in percent: Assessed value of land and buildings	Unpaid taxes in percent: Appraised value of land	Unpaid taxes in percent: Assessed value of land	Total unpaid taxes	Total appraised value of all land and buildings	Total assessed value of all land and buildings
0- 49	19.1	29.1	56.7	33.3	$ 230.63	$ 2,088.00	$ 1,787.00
50-159	20.0	21.5	36.2	22.6	711.77	5,873.00	6,230.00
160 & over	74.7	56.3	98.4	59.5	4,863.38	10,255.36	14,170.00
Total	51.4	45.5	79.3	48.3	5,805.78	18,215.36	22,187.00

unpaid taxes on the 51 farms. The larger farms were able or did pay taxes without a single delinquency for 42 percent of the 40-year-period during which they became taxable. The conclusion reached is that these farms accounted for 84 percent of the total tax delinquency within the last half of the 40-year-period from 1900 to 1939; and since these farms paid taxes only 454 out of 567 years, it is evident that they did not pay as consistently as the smaller farms. (See Figure 7.) This is emphasized by the fact that unpaid taxes on all group-three farms is $1.20 per acre and $1.83 per acre on all delinquent group-three farms. An unpaid tax of $1.83 per acre is rather high compared to an average appraised value per acre of $2.54 on all land and improvements. (See Table X.) Half the owners of group-three farms have a very small equity remaining in their lands. Loss of equity in the land has been a great blow to farmers in this area. Assessments have not been representative of the value of the land in this case, and it is recommended that adjustments be made in the taxes rather than confiscation of the owner's equity.

Appraised Values

The student of land economics becomes interested at once in the value of the land which is studied. It is not enough to say that values of land in a submarginal area are low; further investigation should be made to determine the level to which the values have fallen. Such an analysis may help to discover a cause and effect relationship between appraised values and other economic factors with which land is associated.

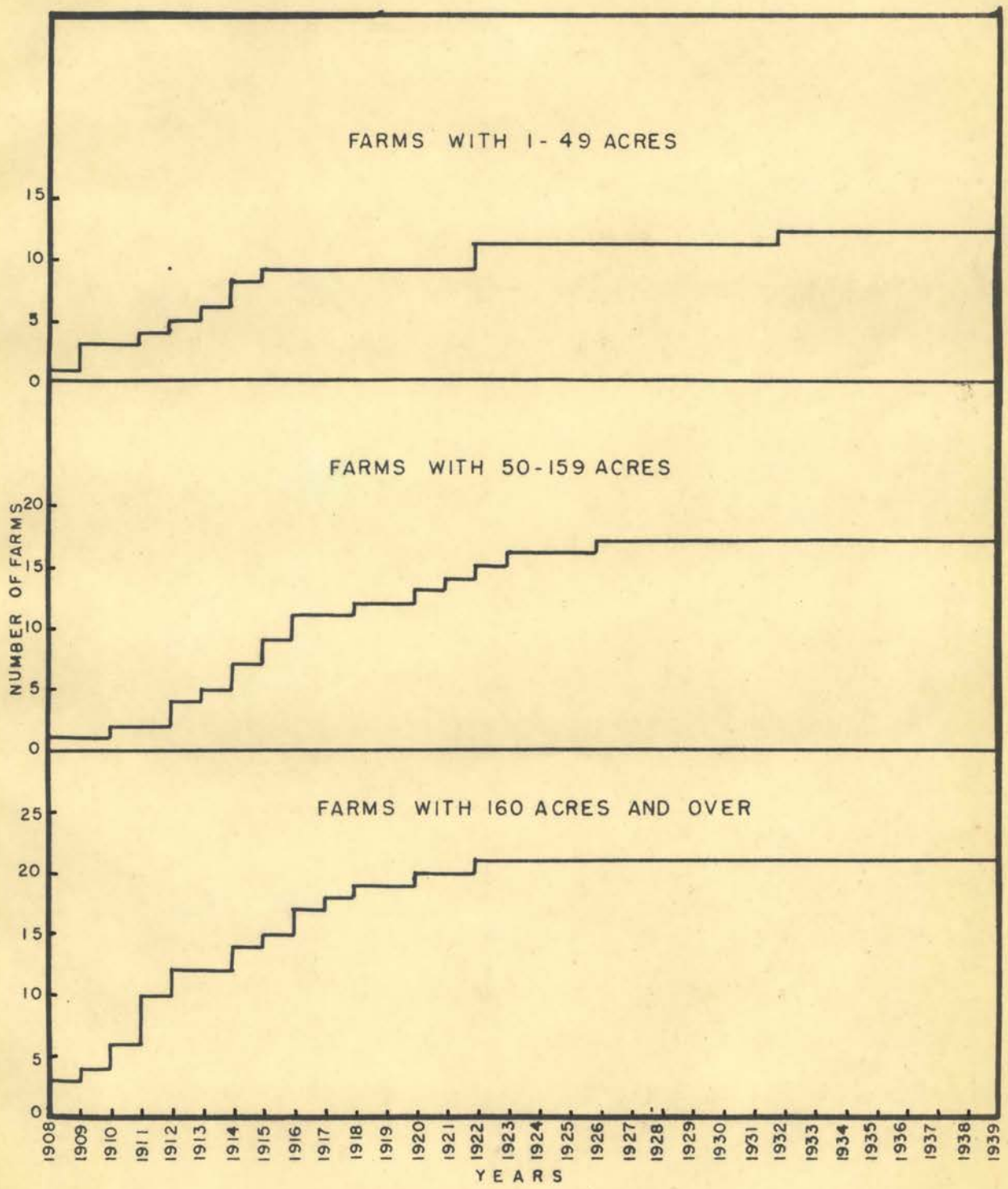
Some changes in the values of the land sampled came about as a result of the general agricultural depression following the World War, and lasted, increasing in severity, until 1929. Since data was available for the year 1939 relative only to appraised value of the 51 farms sampled, a study of

FIGURE 6

NUMBER OF FARMS TAXABLE FROM 1900 TO 1939*

BY SIZE OF FARM

ON 51 SAMPLE FARMS IN THE PROJECT AREA



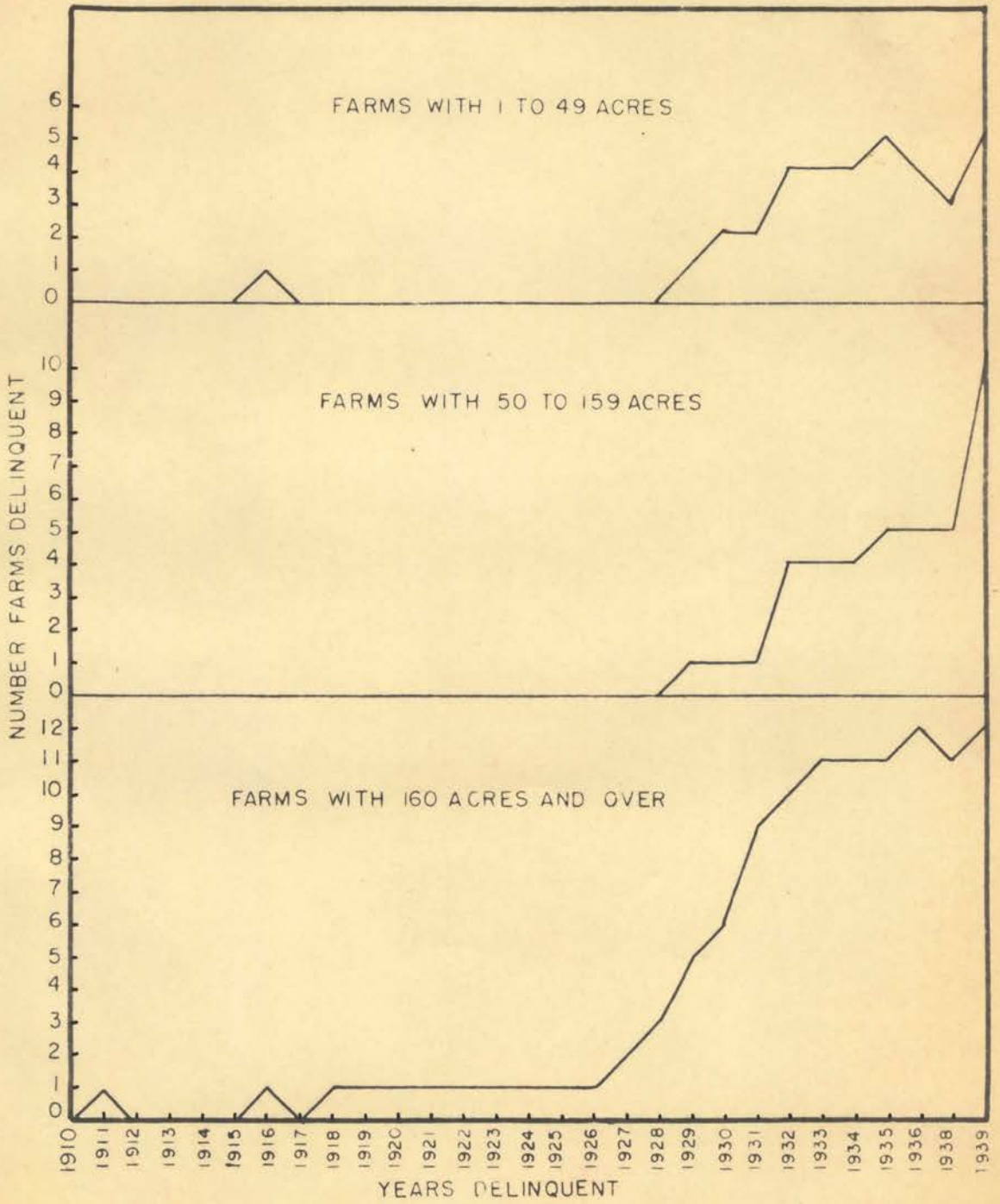
* No farms were taxable from 1900 to 1907.

FIGURE 7

NUMBER FARMS TAX DELINQUENT ON JANUARY 1, 1939

BY YEARS AND SIZE OF FARM 1900-1939*

ON 51 SAMPLE FARMS IN THE PROJECT AREA



* No farms were delinquent from 1900 to 1909.

changing values is necessarily eliminated. Yet the data on hand, as they relate to number of transfers, land use, mortgages, and tax delinquencies may be helpful in this study.

Appraised values of land and improvements in the sample disclose that on small farms the land must yield a much higher return than on larger farms before heavy mortgage and tax burdens can be removed. An appraised valuation of 40 percent land and 60 percent improvements imposes a heavy burden on the land when subsistence, taxes, interest and principal on loans are to be paid under depressing agricultural conditions.

The same situation applies to group-two farms to a lesser extent since improvements do not constitute such a high proportion of the total valuation. These farms as well as those in group one must practice intensification if there is to be any hope of removing indebtedness of taxes and mortgages.

Because the larger farms (group-three farms) have a higher acreage of crop land and have less money proportionately invested in improvements, they should be in a better position than either of the other two groups to withstand mortgage debt and tax delinquency and to furnish a living for the operators.

In a general survey, appraised values of land and improvements per acre range from $5.80 for the small farm to $3.50 for group-two farms, and $2.54 for the large or group-three farms. Since the appraised value of crop land does not vary widely from one group of farms to the other, this difference is due to increased size of farm.

In conclusion, these tables reveal that the smaller farms are forced to intensity to such an extent that even the highest profit combination under present practices on the limited acreage is insufficient to bear the

TABLE X

Appraised Values of Land and Improvements per Acre by Use and Land in Farms on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of farms	Appraised Values per Acre					
		Crop land	Grazing land	Wood-land	All land	Improve-ments	Land and improvements
0- 49	12	$ 4.00	$ 2.41	$ 1.21	$ 2.33	$ 3.47	$ 5.80
50-159	18	4.37	2.32	1.30	2.10	1.43	3.53
160 & over	21	4.12	2.21	1.32	1.88	.65	2.54
Total	51	4.19	2.27	1.31	1.97	1.03	3.00

TABLE XI

Percentage Distribution of Total Appraised Values by Size of Farm on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of farms	Appraised Values per Acre		
		Land	Improvements	Land and improvements
0- 49	12	7	20	12
50-159	18	29	38	32
160 & over	21	64	42	56
Total	51	100	100	100

TABLE XII

Percentage Distribution of Appraised Values by Size of Farm and Present Land Use on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Appraised Values: Land and improvements	Per-cent	Crop land: percent	Grazing land: percent	Woodland: percent	All land: percent	Improve-ments: percent
0- 49	$ 2,088.00	100	11	24	5	40	60
50-159	5,873.00	100	19	21	19	59	41
160 & over	10,255.36	100	19	23	32	74	26
Total	18,215.36	100	18	22	25	65	35

burden of producing a subsistence, of paying taxes and interest, and of removing loan indebtedness. In light of this situation, it seems probable that values were excessive during the time the mortgages were being placed on the land. Land prices were relatively high during 1912 to 1922, the period when most mortgages were placed on the land. The mortgage debt at the time the land was foreclosed was 198 percent of appraised value for group-one farms, 368 percent for group-two farms, and 366 percent for farms of 160 acres or over.

Even with a better distribution of appraised values and crop land, group-two farms were not able to survive the burden of taxes and mortgages. These farms had a smaller total appraised value per acre than the small farms. Appraised values on farms with 160 acres and over had a smaller appraised value per acre than either group-one or group-two farms, but were first to give up the struggle against taxation and did not hold out against foreclosure any longer than either of the smaller farm groups.

Sub-marginality of the land is one of the determining factors which is back of the economic situation found among these 51 farms. It seems reasonable under economic laws that intensification might have helped; yet neither of the three groups of farms was able to survive. Of course, these farmers were not acquainted with methods of intensification. Even if they had been, the price of agricultural products was such that increased production was no help in either removing or lessening tax and mortgage debts.

Appraised values could probably not have influenced to any marked extent the degree of ownership; although appraised values, since they are the measure of exchange value of land, are interrelated with submarginality of land.

Assessed values are generally associated closely with appraised values. In this study, however, assessed values do not correspond with appraised values. Only 8 percent of the total assessed value of group-one farms is associated with improvements, whereas 60 percent of the appraised value of the same group is so associated. This same disparity is prevalent in group-two and group-three. Failure to assess improvements, failure to pay taxes and mortgage payments are considered to have contributed to the increasing economic disturbances in the area.

The natural course of action expected in a submarginal land area would incorporate practices of intensive and extensive operations which would add to the net returns from the land. In this approach to the solution, the new margins were such that the net income was still insufficient to maintain subsistence and remove the burden on the land. The owners' lack of knowledge of methods of management of productive factors under existing conditions explains, in part, the inability of the owners to make the land

pay. Since additional land had to be cleared for operation and all the better land had been taken at this time, extensive operations were inconceivable. Intensification was impractical because of insufficient cash or borrowing power to supplement equipment necessary for the operation.

The general perspective seems to include more than productive factors. The general economic condition of agricultural values as well as land values is thought to be an attributing factor to the cause behind the number of transfers. It would be unreasonable here to charge changing values with all the blame for increasing land transfers; on the other hand, it would be equally improper not to include them as contributing factors. The analysis of this study seems to be pointing toward the conclusion that because of depressing factors in production together with depreciated values of farm property and produce these economic factors have been unable to harmonize.

Land Transfers

Land transfers reflect not only on the people of a community but also on the financial institutions. Land transfers come about when individuals find more economic and social security in other sections, sell their property in the area, and move to a new location. Compulsory transfers are the result of the inability both of the man and the land to pay obligations charged against them. When these obligations are left unpaid the title of the land is transferred to settle the debt.

When the purchasing power of farm products is high there is a vigorous interest in the purchase of land. When, on the other hand, agricultural prices are falling, the purchasing power of farm products decreases

with economic pressure on the land owner, particularly when he has made obligations during times of greater prosperity. This burden tends to increase the number of foreclosures, as a result of the increasing burden of taxes and interest and principal payments on loans. All of this leads to decreasing interest in land purchase and is closely associated with decreasing land values. The downswing is also associated with relative increases in cost of operation and lack of confidence by creditors.

During the forty years for which the transfers of the 51 tracts were studied, the 12 small farms transferred 92 times. This was 22 percent of all transfers on the 51 farms sampled. (See Table XIII.) These figures indicate that the small farms transferred less frequently than the larger farms. (See Figure 8.) These small farms transferred, on the average, almost 100 percent each five year period from 1900 to 1939. The mean number of transfers by five year periods is 11.5 with a ratio of 96 to all farms in the group. The high degree of transfers took place during 1910 to 1915, followed by an increase in 1920-1924 and in 1935-1939. (See Figure 9.)

For those farms having 50 to 159 acres, the number of transfers for the 40 year period was relatively lower than would have been expected, since these farms include 35 percent of all farms sampled and only 34 percent of all transfers. These farms had only 11.7 as a five year mean number of transfers, with a ratio of 65 to the number of farms in the group. The five year data indicate that these farms transferred heavily from 1910 to 1924, and that between 1915 and 1919 had the greatest number of transfers for any period, almost three times the five year average.

The relative number of transfers for farms with 160 acres or over is high when compared to the smaller farms sampled. With 22.9 as a five

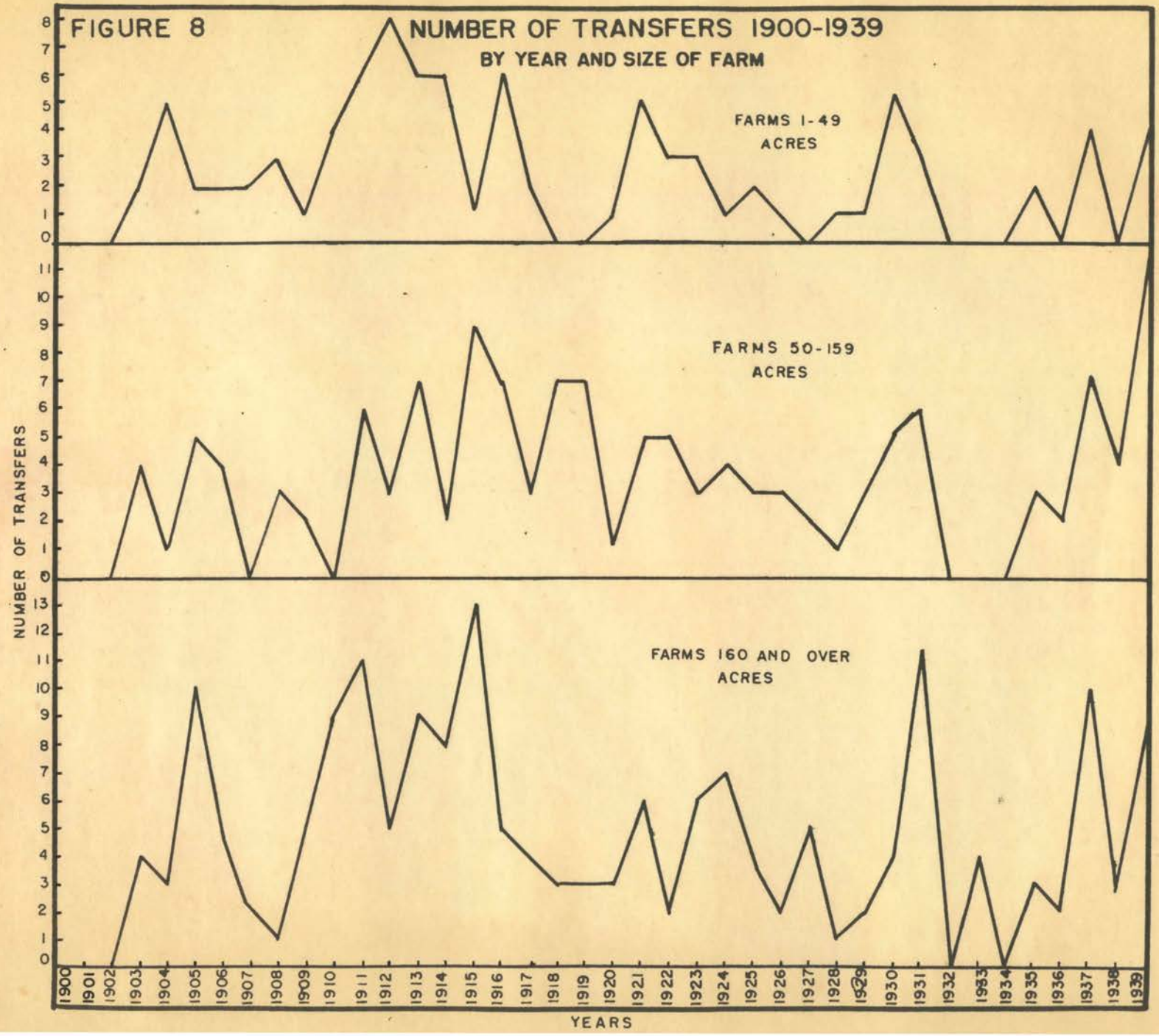


FIGURE 8
NUMBER OF TRANSFERS 1900-1939
BY YEAR AND SIZE OF FARM
FARMS 1-49 ACRES
FARMS 50-159 ACRES
FARMS 160 AND OVER ACRES
NUMBER OF TRANSFERS
YEARS
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939

FIGURE 9
TRANSFERS OF DEEDS
BY FIVE YEAR PERIODS AND SIZE OF FARMS ON 51 SAMPLE FARMS IN THE PROJECT AREA

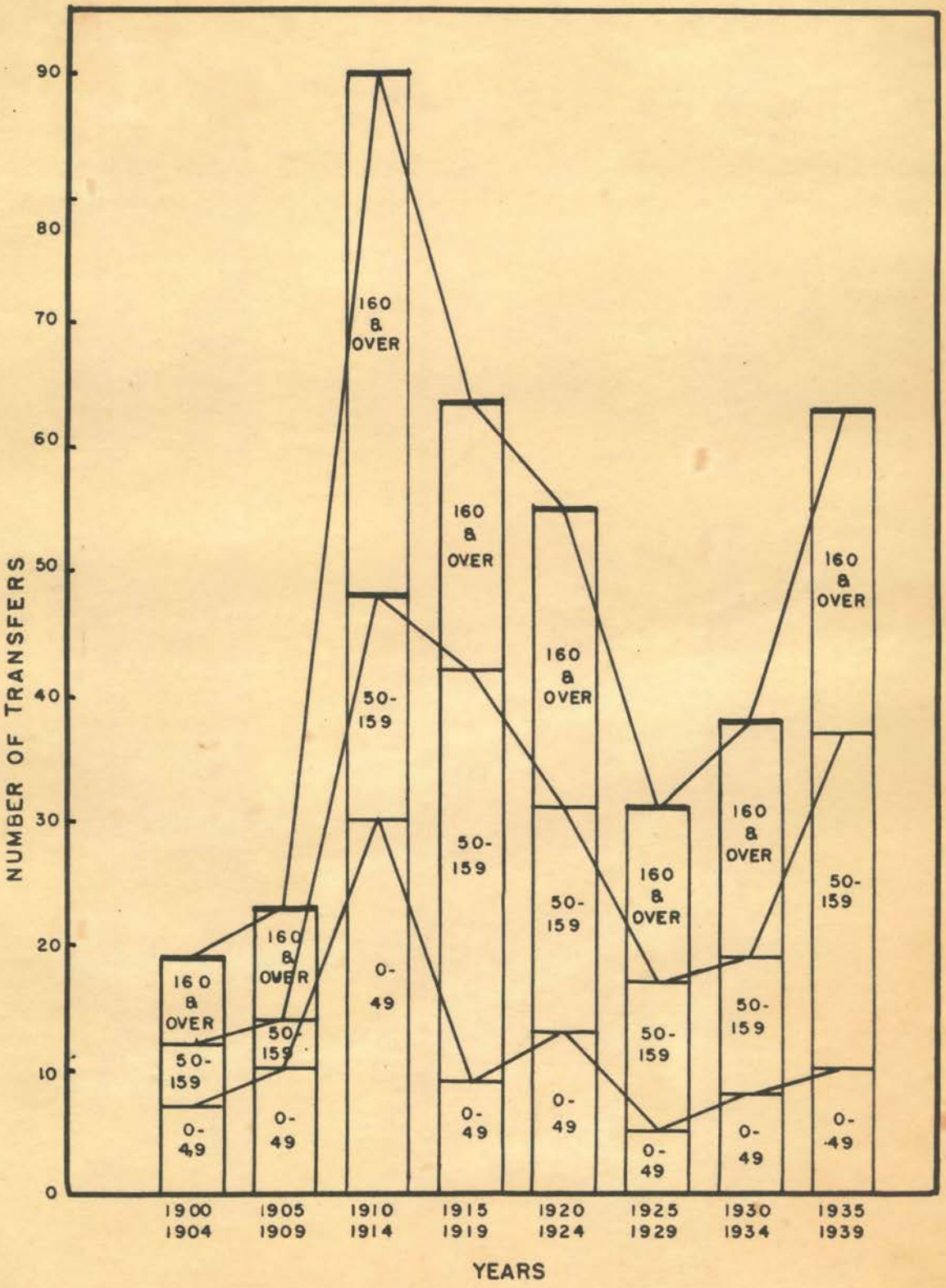


TABLE XIII

Number of Transfers by Five Year Periods 1900 to 1939 and Five Year Mean
With Ratio of Mean to Total Farms on 51 Sample Farms in
McCurtain County, Oklahoma

Acres in farms	Number farms	Transfers Number 1900 to 1939	Transfers Percent distribution	Transfers by Five-Year Periods 1900-39 1900 to 1904	1905 to 1909	1910 to 1914	1915 to 1919	1920 to 1924	1925 to 1929	1930 to 1934	1935 to 1939	Five year mean number transfers	Ratio of five year average to number of farms
0- 49	12	92	22	7	10	30	9	13	5	8	10	11.5	96
50-159	18	138	34	5	14	18	33	18	12	11	27	11.7	65
160 & over	21	183	44	7	23	42	28	24	14	19	26	22.9	109
Total	51	413	100	19	47	90	70	55	31	38	63	51.6	101

TABLE XIV

Average Time Elapse Between Transfers by Size of Farm 1900 to 1939 on 51 Sample Farms in McCurtain County, Oklahoma

Acres in farms	Number of farms	Average time elapse between all transfers	By Five-Year Periods							
			1900 to 1904	1905 to 1909	1910 to 1914	1915 to 1919	1920 to 1924	1925 to 1929	1930 to 1934	1935 to 1939
0- 49	12	3.4	5.6	3.7	2.0	7.1	4.3	3.5	4.1	.5
50-159	18	3.5	12.6	9.6	1.7	3.5	4.7	2.9	4.6	.4
160 & over	21	3.3	9.1	5.7	2.5	3.6	3.5	3.7	2.9	.4
Total	51	3.4	8.7	6.4	2.2	3.5	4.1	3.4	3.7	.4

year mean number of transfers, it is clear that these larger farms had an average turnover greater than 100 percent, the ratio of five year mean number of transfers to number of farms being 109. During the 40 years studied, these large farms transferred rapidly from 1905 to 1924, and again from 1935 to 1939. During the 1910-1914 period the number of transfers was greatest, and was slightly under 200 percent of the five year mean number of transfers for the entire period studied.

The entire group of 51 farms transferred at the rate of slightly more than once each five years during the period 1900 to 1939. The period from 1910 to 1914 had the greatest number of transfers (90, or a ratio of 176 to total number of farms). The ratio of the five year mean number of transfers to number of farms was 101. From 1910 to 1914 transfers were above average for these farms compared to the five year average, with a slight increase during 1935 to 1939. The difference in rate of transfers between group-one and group-three farms seems small, since both have a ratio very close to 100 between the 5 year average number of transfers and number of farms. On the other hand, those farms of 50 to 159 acres have transferred less frequently as indicated by a ratio of 65 between five year average and number of farms.

As shown in Table XIV, the average elapse of time between transfers fluctuates very little because of size of farm; whereas by five year periods there are marked deviations from the average. During the early part of the period, farms having an acreage of 50 to 159 acres remained under the same ownership for a longer period of time than either group one or group two. During the latter part of the period group-one farms continued under the same ownership slightly longer than either of the larger groups of farms. The relatively short elapse of time between transfers from 1910 to 1919

in relation to the increased numbers of transfers may be the result of increased interest in land purchase due to high earning capacity of the land. (See Figure 10.) Financial status of those persons concerned with transferring the land suffered during the ensuing years.

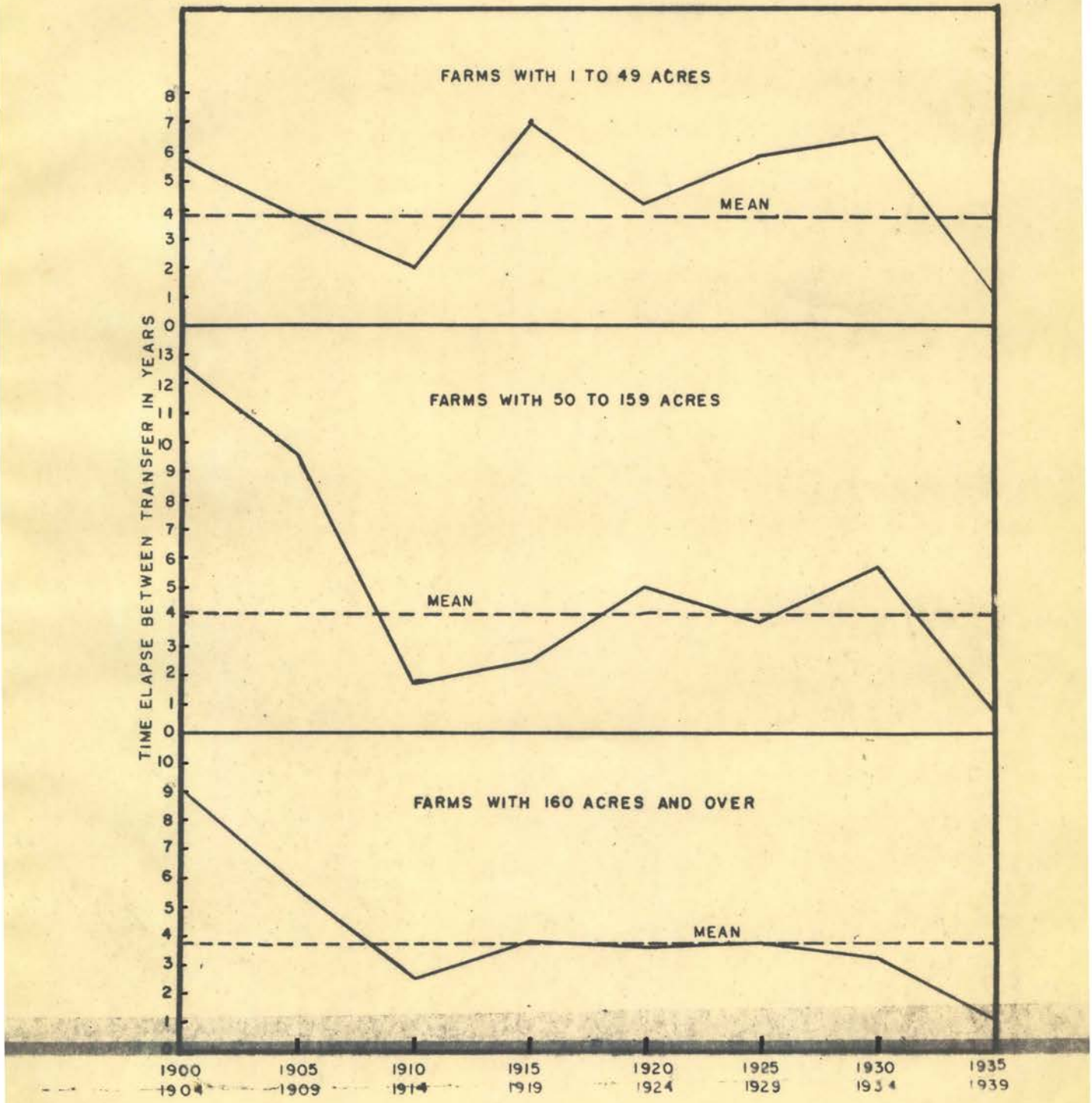
Because of the absence of mineral resources, along with submarginality of the land (under present uses which lessen the land's productivity), land ownership is marked by instability, high tax delinquency, and foreclosure. The present policy of the land owners is to retain possession of the land, paying taxes when possible, and awaiting government possession when they are unable to pay. When the property has been taken by the county for taxes, some owners have moved away; others have managed to purchase a tax deed from the county on another tract in the same community, remaining on it as long as the law will permit. Few, if any, are able to pay taxes on land purchased by tax deed. Since large land owners are able to pay a higher price for it, concentration of the better lands under multiple ownerships results; and the small owners, who have lost their farms, are forced to become tenants on the better lands or owners of the poorer lands.

The increase of tenants, croppers, and laborers in the county as shown by the Census, 34/ together with modes of transportation, development of roads, educational and religious institutions are social factors contributing to the present degree of economic and social disorganization. 35/

34/ United States Census, 1910, 1920, 1930; and Agricultural Census, 1925-35.

35/ "Family safety may be as important in future America as soil erosion. At the same time, the sociological accompaniments of attempts to change the customary economic orientation of the farm without clear thought as to its ultimate consequences on the family may be equally or more important in the long run. Formal changes in the situation of a population without internal adaptations in the family structure are of no particular avail as measures of long time relief or reconstruction." Carl C. Zimmerman and Merle E. Frampton, Family and Society, D. Van Nostrand Company, 1935, pp. 162-163.

FIGURE 10
AVERAGE
TIME ELAPSE BETWEEN TRANSFERS. 1900-1939
BY FIVE YEAR PERIODS AND SIZE OF FARM
ON 51 SAMPLE FARMS IN THE PROJECT AREA



Among the physical factors contributing are: small size of farm, loss of soil fertility, and such depressing climatic conditions as the drouth of 1934 and years of excessive rainfall. The economic factors contributing are: decreasing population, falling prices of agricultural products resulting in depreciation of the purchasing power of the farm dollar, increasing costs of operation, increasing taxes, and a relatively higher level of living. All of these have contributed to the present state of economic and social disorganization found in the area and are causing the dispersion of farm families to other areas.

Summary

The average size of farm in this study was 118.9 acres, compared to the average of 120 acres for the eastern part of Oklahoma. 36/

The mortgage record of these farms points out that 40, or 78 percent, were foreclosed, associated with 11 that were never mortgaged. Of those not mortgaged, 5 or almost half, were among the group-two farms (50-159 acres); this indicates that corporate ownership has not taken as many group-two farms as of either of the other groups. For the farms mortgaged in group two there was almost twice as much elapse of time between mortgages as between transfers. These mortgaged farms had a ratio of 138 to tax delinquent farms, while analysis of size of farm shows that the larger the farms, the greater the delinquency. For the 51 farms the analysis reveals that the ratio of mortgage debt to unpaid taxes is lower on the large and small farms than on group-two farms. It was found that the

36/ Randall T. Klemme, "Some Facts Concerning the Ownership of Land in Oklahoma," Current Farm Economics, Vol. 13, No. 1 and 2, pp. 15-21, Stillwater, Oklahoma.

ratio of mortgage debt to assessed value is much higher for group-two farms than either group-one or group three-farms. The ratio of mortgage debt to appraised value was higher on group-two and group-three farms than on group one, while the ratio of number of mortgages to the number of transfers decreased with increasing size of farm. This means that group-one and group-three farms have paid taxes less frequently than group-two farms. In this study group-two had 50 percent of the farms delinquent; this indicates that assessed values were low compared to group-one and group-three farms.

The data in this study indicate that while size of farm operations show some advantage for group-two farms, the fact remains that neither of the farm groups as a whole would have been able to sustain the burden of taxes and mortgage debts made when general agricultural conditions were extremely favorable; certainly neither of them could bear up under such heavy burdens at the time when general agricultural conditions had reached new all time lows. The mortgage records of these farms show a diminution of resident owners' equity in the land, accompanied by the removal of a large part of the working capital in the area. An accumulated tax debt on the land resulting from changes in land use along with mortgage debt and decreasing agricultural prices have each contributed to depression of the land causing an increasing burden which has almost completely displaced the owner-operator and left the land concentrating in the hands of financial interests i.e., corporations, and non-resident investors.

As a result of the maladjustment in tax load, the study shows group one and group two with a low ratio between unpaid taxes and appraised value. Group-three farms had a ratio over 3 times that of the other groups, indicating that these large farms have almost all their actual value obligated

in delinquent taxes. The ratios calculated for unpaid tax to assessed values are noticeably lower as a result of assessments being much higher than actual values for large farms. The data also shows that the small farms have had higher assessed values than the large farms, as indicated by the ratio of appraised to assessed values of land and buildings. This difference is largely accounted for in that the small farms had more improvements that were not assessed while the larger farms had the greater proportion of assessed values associated with the land. Since all the land was on record in the county court house it was impossible to fail to assess farm improvements in the same degree as the smaller farms. For these reasons the larger farms carried the heavy end of the tax load.

For the forty year period, 1900 to 1939, the 51 farms transferred 413 times, an average of 8 times or once each five years. These 413 transfers involved 41,603.88 acres. Of the 51 farms only 11 survived the period with no mortgage record. The forty farms having a mortgage record were foreclosed, thus emphasing the inability of the land to yield returns large enough to furnish a livelihood and retire land debts. Farms having an average of 30 (o to 49) acres transferred more than those having an average acreage of 192.3 acres (160 acres or over). This study would lead the reader to conclude that farms in the area with an average of 80 to 100 acres are the more stable farms. The degree of transfer is shown by a ratio of 65 between the five year mean number of transfers and total number of farms, for those having an acreage of 50 to 159 acres, compared to a ratio of 96 for farms under 50 acres, and 109 for farms with an acreage larger than 159 acres.

Of the 413 total transfers 9 of the original transfers were unallotted land deeds; the remainder of the original transfers (42) were allotments and patents to the Indians and their slaves (Freedmen). At the end of the 40 year period, 26 tracts, or 51 percent, were owned by corporations; 11 tracts, or 19 percent, were owned by non-resident owners; and 14 tracts, or 24 percent, were owned by resident owners. This study directs attention to a greater degree of concentration of group-two and group-three farms in the hands of corporations than group-one. A total of 73 percent of all tracts remains in the hands of corporations and non-resident owners. This shows a trend to concentration of these tracts in the hands of multiple and non-resident owners.

The situation of decreasing equities and of relative increases in the burden of taxes and mortgages has helped bear the land values to such a low level it is impossible for owners to sell their remaining equity for enough to pay loans and taxes. The tracts have, therefore, either been foreclosed or sold for taxes, leaving the people to become tenants, croppers, laborers, or be forced to move to some other area in one of these capacities.

Each of the above factors seems to have contributed to the degree of transfer. Yet it seems that the greatest influence on the number of transfers is associated with improving general agricultural conditions. For confirmation of these statements see data presented in tables in Appendix I.

TABLE XIV

Ratios Showing Relationships of Size of Farms, Type of Ownership, Mortgage Record, Tax Delinquency, and Appraised and Assessed Values with Number of Transfers on 51 Sample Farms in McCurtain County, Oklahoma

	Acres in farms			
	0-49 acres	50-159 acres	160 & over	all farms
Ratios calculated for entire sample				
Number farms in group to all farms	24	35	41	100
Land in farm group to all land	6	27	67	100
Type of ownership. (Ratios calculated for each size of farm group and total farms.)				
Corporate farms to all farms	33	56	57	51
Private resident farms to all farms	33	28	24	27
Private non-resident farms to all farms	33	17	19	22
Mortgage record				
Number mortgages to number of farms	292	278	248	269
Farms mortgaged to all farms	75	72	86	78
Acres mortgaged to total acres	72	70	88	82
Farms mortgaged to farms delinquent	150	144	129	138
Acres mortgaged to acres delinquent	153	129	134	133
Total mortgage debt to total unpaid taxes	1798	3033	733	1090
Total mortgage debt to appraised value	198	368	366	347
Total mortgage debt to assessed value	231	347	265	285
Number mortgages to number transfers	38	36	28	33
Time elapse between mortgages to time elapse between transfers	196	158	216	189
Tax delinquency				
Farms delinquent to all farms	50	50	67	57
Land delinquent to all land	47	64	66	62
Years delinquent to years taxable	12	10	20	15
Unpaid taxes to appraised value	23	22	72	52
Unpaid taxes to assessed value	13	11	34	26
Appraised and assessed value				
Appraised value of land to assessed value	51	58	66	56
Appraised value of improvements to assessed value of improvements	832	1222	434	657
Appraised value of land and improvements to assessed value of land and improvements	117	94	72	82

CHAPTER V

SUMMARY AND CONCLUSION

Summary

1. The sample is significant on the basis of the variables considered in the study.

Types of Ownership

2. Farms with 0 to 49 acres had ownership divided equally between corporate, private non-resident, and private resident owners.
3. In farms having 50 to 159 acres over half the land was owned by corporations, while private ownership accounts for only 36 percent.
4. Over half the land in farms of 160 acres and over was owned by corporations, and one-fourth by private resident owners.
5. At the present slightly more than 50 percent of the farms are owned by corporations and 27 percent are owned by private resident owners.
6. In the area there has been a tendency to concentrate ownership in the hands of corporations and private non-resident owners.

Mortgages

7. On farms having 50 to 159 acres the number of mortgages was smallest; group one having 0 to 49 acres, and group three having 160 acres and over followed in order of magnitude.
8. Seventy-eight percent of all farms sampled were mortgaged, all of which had been foreclosed.
9. As the size of farm increased the number of times the total land was mortgaged decreased.
10. The total acreage mortgaged was equal to 2.2 times the total acreage in the sample.

11. As the size of farm increased the relative number of mortgages per farm decreased.
12. Total mortgage debt ranged in direct proportion to the relative percent of total crop land among the various size groups.
13. The average mortgage debt at time of foreclosure for all land was 443 percent of the present average appraised value of the land.
14. The ratio of mortgage debt to appraised values was highest for those farms having 50 to 159 acres and those farms having 160 acres or over.
15. The ratio of mortgage debt to assessed values was highest on farms of 50 to 159 acres, with farms of 0 to 49 acres and of 160 acres or over being relatively the same.
16. The time required to release mortgages was greatest for the largest farms, those 160 acres or over; farms of 50 to 159 acres, however, required less time to remove first mortgages than those of either of the other two size groups.
17. The average number of years required to release first mortgages on all farms was 6.4 years.
18. The mortgage debt situation was most reasonable on the smallest farms, those of 0 to 49 acres, being less than 2 times the appraised value of the land, compared to 3.7 for farms of 50 to 159 acres, and farms of 160 acres or over, and an average of 3.5 for the total 51 farms sampled.

Taxes

19. Tax delinquencies were above 50 percent in all groups, with 57 percent as an average for all farms sampled.
20. As size of farm increased, the tax delinquency also increased, ranging from 47 percent for farms of 0 to 49 acres to 66 percent for farms 160 acres and over, and having an average of 62 percent for all groups.

21. The number of years taxes were delinquent ranged from an average of 4.4 for farms of 50 to 159 acres to 8.1 for farms of 160 acres or over. The average for all farms was 6.5 years.

22. The proportion of total land delinquent increases more nearly in ratio with the increase in size of farm than it does with the proportion of crop land. Of the total land delinquent 5 percent is associated with farms under 49 acres in size, while 71 percent is found among farms of 160 acres or over, the crop land distribution being 7 percent for the former to 60 percent for the latter.

23. Total unpaid taxes increased more with increase in size of farm than did total land delinquent.

24. Total unpaid tax per acre was least on farms of 50 to 159 acres and greatest on farms 160 acres or over, the larger farm having an average per acre delinquency 2.3 times that of the middle-sized farms.

25. The ratio of unpaid taxes to appraised and assessed value of all lands and buildings was greatest on farms of 160 acres or over, and the average unpaid taxes on all 51 farms was 45.5 percent of the assessed values and 51.4 percent of the appraised value.

26. Unpaid taxes on all farms amounted to 79 percent of the appraised value of the land value.

27. Owners' equities remaining in the land due to delinquent taxes alone were less than 50 percent. The large farms had an equity of 25 percent.

Appraised Values

28. Greater divergence between appraised and assessed values were found on farms of 0 to 49 acres and farms of 160 acres or over than on farms of

50 to 159 acres; this means that taxes were better adjusted to present values in the middle-sized farms than on either of the other two groups. In this case, assessments were lower than appraised values on the smallest size group farms. They were about equal on the middle-sized farms, and higher than appraised values on the largest farms.

29. The appraised values per acre of all land and buildings decreased as the size of farm increased, principally because of heavy value of improvements on the small farms and increased grazing land and woodland found on the larger units.

30. As size of farm decreased, the relative proportion of total appraised value of land and buildings decreased compared to total land in farms.

Assessed Values

31. As size of farms increased the total assessed value per acre decreased the same as did appraised value of land and buildings but did not vary as did appraised values.

32. Assessed values were found to be almost twice appraised values with respect to land alone.

33. Assessed values of land and buildings were less than appraised values on farms of 0 to 49 acres, slightly above appraised values on farms of 50 to 159 acres, and almost 1½ times appraised values on farms of 160 acres or over.

34. The heavy assessments on the farms of 160 acres or over have resulted in tax sales and loss of the land (from tax rolls) as a source of revenue for county government.

Land Transfers

35. Transfers have occurred more often on farms of 160 acres or over than on either of the other two size groups.

36. Transfers occurred most frequently from 1910 to 1920.

37. The average number of transfers for the 51 tracts for the 40 years was 8, or one each 5 years.

38. The average time elapse between transfers for the farms transferring was 3.4 years.

Conclusion

This study has found that the productivity of the land in the area has decreased for the last twenty years, principally because of such characteristics of the soil as: type, erosivity, methods and practices used in farming the land. Associated with this decline in productivity, timber, the crop this area was most fitted to produce, became depleted; and up until the time of this study it has not been restored.

The lands have been concentrating in the hands of non-resident owners, a large part of whom are corporations.

The mortgage debt on the land has become more pressing because of two things: first, the trends of agricultural prices and the decrease in productivity of the land; second, the fact that mortgage debts must be paid on the basis of amounts borrowed rather than on purchasing power of the crops produced. The mortgage debt burden has increased to such an extent as to make foreclosure inevitable.

As a result of increased tax rates, decreased productivity of the soil, decreasing agricultural prices and mortgage burdens, taxes have become delinquent.

When land was most productive and when agricultural conditions were favorable, there was a relatively high rate of land transfers. Since 1920, however, neither of the above conditions has been favorable, and land transfers have decreased.

All of these factors have interacted to produce economic maladjustment in the area. Moreover, it seems unlikely, considering present conditions and the length of the average farmer's life, that this area will soon be restored to marginality.

The author, who is personally acquainted with the problem of submarginality in this area, feels that the trial and error methods which are being employed to restore the natural uses of the area, i.e., forestry and grazing, lack direction and are inadequate. In this study there seem to be two courses of action which might effect a desired economic adjustment. First, private interests and corporations who can handle long time investments might be allowed to secure these tracts and develop them by cooperating with nature to restore the natural uses of the land (forests and grazing). The people in the area would, then, be forced to relocate in other areas. This method probably would be most economical for changing the use of the land, but it might be more expensive if consideration is given to the relocation of the people now living in the area. Second, these adjustments might be fostered under government planning and supervision, by a program of purchasing the least economic units, granting the parties displaced certain types of aid in order that they can be relocated or resettled under more favorable conditions in other areas. The land should be returned to forestry and grazing, by methods and practices known to be effective in restoring the natural uses of the land.

It is the author's judgment that further studies such as the present one but on a larger scale (with at least a 20 percent sample of all farms in the area) would be extremely valuable. In addition to such studies, the author suggests that more extensive research be done in the field of taxation as it is related to submarginality of the land in this area.

APPENDIX I

Method Used in Estimating Gross Value from Cattle, Hogs, Cotton, and Corn in McCurtain County, Oklahoma

General Method. It was found necessary in estimating gross value of cattle and hogs to make interpolations of numbers and prices for the years between Census reports. Investigation indicated that the assessor's reports for the county, on file in the office of K. D. Blood, state statistician, Agricultural Marketing Service, United States Department of Agriculture, Oklahoma City, Oklahoma, [37] were the best available indication of the directional change in numbers of cattle and hogs.

The method involved includes the following steps; first, the calculation of the percentage the county census figures are of the county assessor's figures for census years; second, the correction factor necessary to adjust the assessor's trend to the census figures is calculated by finding the differences between the percentages obtained in the first step and dividing this difference by the number of years bewteen census reports. Third, the correction factor calculated in step two is added to, or subtracted from, the first percentage obtained in step one to determine the corrected interpolation index. Fourth, this index is applied to the assessor's figures in calculating the estimated number of cattle and hogs for the inter-census years.

After this index has been applied to the assessor's reported figures, the resulting interpolated figures represent the trend in numbers of cattle and hogs for the years 1910 to 1935. For the years 1936 to 1939 the per-

[37] A straight line interpolated figure was used for the assessor's report in 1913 as the assessor's report for this year was not available.

centage directional change was calculated for the assessor's reports and then applied to the 1935 Census in order to project the interpolations to 1939. The reason for this alteration in method is the fact that no census or more accurate data was available for 1939 which is the last year considered in this study.

Cattle and Hogs. To arrive at values of cattle and hogs for the period 1910 to 1939, the 1910 to 1914 average value per animal was calculated from the United States Department of Agriculture Year Book by dividing the total value of milch cows and total other cattle or hogs by the number of all cattle or hogs. The price index of all cattle or hogs as given in Oklahoma Experiment Station Bulletin No. 238 [38] and Current Farm Economics [39] was applied to the 1910 to 1914 average value per head of all cattle or hogs giving the value per head of all cattle or hogs for the period 1910 to 1939. This price was then applied to the numbers of cattle or hogs previously calculated, giving the total value of all cattle or hogs for the years 1910 to 1939.

Since the prices of cattle and hogs are affected by national and international influences, no adjustment of district variation in price is deemed necessary in this study.

These numbers of cattle and hogs are based on the most reliable estimates available and the values are based on the most recent authoritative data, there is reason for concluding that the gross value of cattle as calculated in this paper represents the general trend in livestock values for the period 1910-1939.

38/ Trimble R. Hedges and K. D. Blood, Op. cit.

39/ Current Farm Economics, Op. cit., pp. 42-47.

Cotton. In order to estimate gross value of cotton in McCurtain county is was necessary to construct representative per bale prices for years between United States Census reports. The total production was obtained from the total ginnings reported to the State Corporation Commission, Oklahoma City, Oklahoma, for the years 1910 to 1927.

The total production for 1928 to 1938 was obtained from the State Agricultural Statistician, Agricultural Marketing Service, United States Department of Agriculture, Oklahoma City, Oklahoma. The total production for 1939 was obtained from the State Agricultural Adjustment Administration office located at Stillwater, Oklahoma.

Accepting the assumption that Oklahoma prices as presented in Oklahoma Experiment Station Bulletin No. 238 were representative of prices in McCurtain county, due to national and international factors influencing the stability of the price of cotton, we proceeded with the calculation of a per bale price by applying the price index given in Bulletin No. 238 to the 1910 to 1914 average price per bale. 40/ The result was the average price per bale of cotton for the years 1910 to 1939. The application of this price to the total production gave the gross value of cotton for each year.

In this analysis it was also necessary to construct acreage and yield figures that would show the trend in land use as influenced by acreages planted to cotton during the period.

The process included construction of acreages and yields that were based on Census reports and which agreed with these reports for the entire period. For a point of beginning, the assumption was made that the directional change in cotton yields in McCurtain county follow very closely the

40/ United States Department of Agriculture Year Book, Reports for 1909 to 1939.

State yields as shown in the United States Department of Agriculture Year Book reports [41] and the Agricultural Adjustment Administration office records giving the total bales ginned and the total acres harvested in 1939. [42] These figures were used to calculate the yield per acre for the years 1910 to 1939. These yields were reviewed as a percent of the yield for Census years. These percentages were compared for differences as follows: 1910 and 1920; 1920 and 1925; 1925 and 1930. The differences in these percentages were proportioned to inter-census years as a corrective factor in order to tie the estimated figures to the yields for Census reports.

When this correction factor had been added or subtracted by accumulation to, or from, the base year as indicated, the result was a percentage which can be applied to the above mentioned yields obtained from the United States Department of Agriculture Year Books and Agricultural Adjustment Administration reports. This resulted in a yield that represented the county and at the same time showed the general trend in the county.

After this processing was completed it was learned that the yield in 1918 was unreasonably low. For accuracy, the climatological data were checked and a specialist in the Crops Department was questioned as to the percent of normal crop that might be expected under these conditions. After obtaining this figure, further investigation was made by interviewing an entomologist for an estimate of the damage done by pests, such as the boll weevil and boll worm during the prevailing climatic conditions of this particular year. When these estimates were completed a percent of normal

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41/ Ibid.

42/ A.A.A. office, Stillwater, Oklahoma, yield per acre as shown by gin reports which indicate the acreage harvested in 1939.

indication was applied to the 1910 to 1914 average yield, resulting in a yield that seems to be more representative for the county than the previous estimate. The reason for the difference in this particular year was that McCurtain county received more rainfall than other cotton growing sections of the State. When these yield estimates for the 1910 to 1939 period were completed and checked it was concluded that even without more detailed sampling and more mathematical analysis these yields appeared to represent the general trends in cotton yields; this would justify their processing with the total productions to arrive at the total acreages harvested as shown by the Agricultural Adjustment Administration for the years 1928 to 1934 and were found to compare favorably or rather were found to be within five acres of the Agricultural Adjustment Administration reports.

With this comparison the estimates were deemed satisfactory and representative of the general trend in acreage harvested, yield per acre, price or value, and gross value.

Corn. The method of arriving at gross value of corn follows very closely the method used for gross value of cotton except for minor deviations.

To interpolate harvested acreage of corn the percent directional change in United States Department of Agriculture, totals for the State were applied to the United States Census totals for McCurtain county with a correction factor similar to that used in estimating yields of cotton. The result was interpolations that represent the trend in harvested acreage of corn in McCurtain county.

Corn yields for the period 1910 to 1939 were calculated in the same manner as cotton yields.

Total production figures for the period were calculated by applying the yield per acre estimates to the interpolated harvested acreage.

A price per bushel was obtained from Oklahoma Experiment Station Bulletin 238 [43] and Current Farm Economics. [44] The price was then applied to the total production creating a gross value of corn for the years 1910 to 1939.

Comparisons of trends in harvested acreage, yields per acre, total production and price per bushel were reviewed and compared to Census reports, United States Department of Agriculture reports, and crop and livestock estimates issued by the Agricultural Marketing Service, and were found to follow very closely the general trends indicated in these reports. Since these calculations follow very closely the aforementioned trends, those trends indicated by this study seem representative. Thus, the gross value of corn production as calculated for the years 1910 to 1939 will be representative.

Since net income is the difference between gross value and gross costs, it follows that as gross value increases gross sales will normally increase. As gross sales increase, net income should increase. For this reason, these calculations are made, for the purpose of indicating the general trend in farm income in McCurtain county.

43/ Op. cit.

44/ Op. cit.

TABLE I

Interpolated Numbers, Prices, Gross Values, and Index of Gross Values of Cattle 1910-1939 for McCurtain County, Oklahoma

Year	Census reports*	Assessor's reports**	Interpolating percentages	Interpolated numbers	Price per head	Gross value	Index of gross value
1910	15,343	11,422	134.33	15,343	$ 24.88	$ 381,734	81
1911		14,466	133.70	19,341	23.18	448,324	102
1912		14,938	133.08	19,879	26.86	533,950	105
1913		15,180***	132.45	20,106	32.51	653,646	106
1914		15,422	131.82	20,329	33.92	689,560	107
1915		14,737	131.19	19,333	34.21	661,382	102
1916		12,105	130.57	15,805	37.32	589,843	83
1917		13,730	129.94	17,840	45.23	806,903	94
1918		21,863	129.31	28,271	50.89	1,438,711	149
1919		31,358	128.69	40,355	51.17	2,064,965	212
1920	30,773	24,030	128.06	30,773	42.69	1,313,699	162
1921		16,429	140.39	23,065	27.42	632,442	121
1922		16,734	152.71	25,554	26.29	671,815	134
1923		15,821	165.04	26,111	25.16	656,953	137
1924		12,958	177.36	22,982	24.59	656,127	121
1925	21,187	11,169	189.69	21,187	28.84	611,033	112
1926		9,628	194.09	18,687	32.23	602,282	98
1927		8,727	198.49	17,322	36.19	626,883	91
1928		9,037	202.90	18,336	48.34	886,362	97
1929		6,469	207.30	13,410	48.62	651,994	71
1930	14,311	6,760	211.70	14,311	38.45	550,258	75
1931		7,998	227.15	18,167	26.29	447,610	96
1932		9,088	242.60	22,047	19.79	436,310	116
1933		11,371	258.05	29,343	17.53	514,383	154
1934		10,396	273.50	28,433	17.81	506,392	150
1935	36,266	12,551	288.95	36,266	30.53	1,107,201	191
1936		11,454	91.26	33,096 ‡	31.66	1,047,819	174
1937		14,081	122.94	40,688	35.05	1,426,114	214
1938		13,554	66.73	39,163	33.08	1,295,512	206
1939		12,882	95.04	37,221	30.53	1,136,357	196

* United States Census reports for 1910-1920-1930, and United States Census of Agriculture for 1925-1935.

** Assessor's reports on file in the office of K. D. Blood, State Statistician, United States Department of Agriculture, Oklahoma City, Oklahoma.

*** These figures were estimated by straight line interpolation using reported figures for 1912 and 1914.

‡ Interpolated numbers for the years 1936 to 1939 were projected on percent change from one year to the next as shown by assessor's reports and applied to the 1935 Census figures as a base.

TABLE II

Interpolated Numbers, Prices, Gross Values, and Index of Gross Values of Hogs 1910-1939 for McCurtain County, Oklahoma

Year	Census reports*	Assessor's reports**	Interpolating percentages	Interpolated numbers	Price per head	Gross value	Index of gross value
1910	20,923	10,562	198.10	20,923	$ 8.79	$ 183,913	64
1911		15,450	215.78	33,338	6.54	218,031	103
1912		15,000	233.46	35,019	7.39	258,790	108
1913		14,389***	251.14	36,137	8.17	295,239	111
1914		13,778	268.82	37,038	8.01	296,674	114
1915		8,979	286.50	25,725	7.00	180,075	79
1916		7,172	304.18	21,816	9.10	198,526	67
1917		9,837	321.86	31,661	15.09	477,764	98
1918		14,621	339.54	49,644	17.19	853,380	153
1919		13,125	357.22	46,885	17.74	831,740	144
1920	33,070	8,821	374.90	33,070	13.61	450,083	102
1921		7,890	387.05	30,538	7.94	242,472	94
1922		6,095	299.20	18,236	8.71	158,836	56
1923		5,792	411.36	23,826	7.08	168,688	73
1924		4,690	423.51	19,863	7.47	148,377	61
1925	18,154	4,167	435.66	18,154	11.67	211,857	56
1926		3,936	476.63	18,760	12.84	240,878	58
1927		3,580	517.59	18,530	10.19	188,821	57
1928		5,840	558.56	32,620	8.95	291,949	100
1929		3,150	599.52	18,885	9.49	179,219	58
1930	16,563	2,586	640.49	16,563	8.95	148,239	51
1931		1,785	624.29	11,144	6.15	68,536	34
1932		2,321	608.09	14,114	3.58	50,528	43
1933		3,253	591.90	19,255	3.42	65,852	59
1934		2,012	575.70	11,583	4.12	47,722	36
1935	18,234	3,259	559.50	18,234	8.79	160,277	56
1936		2,531	77.66	14,161 ‡	9.57	135,521	44
1937		3,048	120.43	17,054	9.88	168,494	52
1938		2,392	78.48	13,384	8.09	108,277	41
1939		3,002	125.50	16,787	5.52	92,719	52

* United States Census reports for 1910-1920-1930, and United States Census of Agriculture for 1925-1935.

** Assessor's reports on file in the office of K. D. Blood, State Statistician, United States Department of Agriculture, Oklahoma City, Oklahoma.

*** These figures were estimated by straight line interpolation using reported figures for 1912 and 1914.

‡ Interpolated numbers for the years 1936 to 1939 were projected on percent change from one year to the next as shown by assessor's reports and applied to the 1935 Census figures as a base.

TABLE III

Interpolated Acreages and Calculated Price per Bale, Gross Value and Index of Gross Value of Cotton 1910-1939, for McCurtain County, Oklahoma

Year	Census reported acres harvested	Interpolated acreages harvested	Yield per acre*	Production in bales**	Price per bale †	Gross value of cotton	Index of gross value 1910-1914 = 100
1909	7,417	7,417	119	1,765	$ 66.00	$	
1910		16,682	162	5,405	66.00	356,730	51
1911		44,812	130	11,651	60.00	699,060	110
1912		36,487	149	10,873	51.00	554,523	102
1913		58,841	107	12,592	58.00	730,336	118
1914		36,491	173	12,626	48.00	606,048	119
1915		26,356	132	6,958	44.00	306,152	65
1916		60,782	126	15,317	66.50	1,018,580	144
1917		73,193	135	19,762	105.00	2,075,010	186
1918		83,093	134	22,269	139.50	3,106,525	210
1919	62,438	62,438	160	19,939	145.00	2,891,155	188
1920		54,543	187	20,399	140.50	2,866,059	192
1921		28,880	108	6,238	54.50	339,971	59
1922		62,937	127	15,986	90.50	1,446,733	150
1923		73,860	114	16,840	127.50	2,147,100	158
1924	83,578	83,578	148	28,017	131.00	3,670,227	264
1925		112,830	166	37,526	108.50	4,071,571	323
1926		73,339	107	15,693	70.50	1,106,356	148
1927		74,865	122	18,267	76.00	1,388,292	172
1928		89,203	124	22,550	90.50	2,040,775	212
1929	77,943	77,943	127	19,909	86.00	1,712,174	187
1930		75,101	110	16,851	59.50	1,002,634	159
1931		65,904	193	25,709	35.00	899,815	242
1932		62,302	108	13,880	26.50	367,820	131
1933		48,501	172	16,488	38.00	626,544	155
1934	43,847	43,847	106	9,675	56.50	546,637	91
1935		33,500	82	5,660	54.50	308,470	53
1936		51,000	139	14,293	53.50	764,675	134
1937		58,000	180	21,641	50.50	1,092,870	204
1938		30,290	94	12,100	37.00	447,700	114
1939		29,400	236	13,511***	39.50	533,684	127

* Yields obtained from the Agricultural Adjustment Administration office, Stillwater, Oklahoma.

** Production figures for 1909 to 1938 taken from Crop and Livestock estimates reported by K. D. Blood, State Statistician, United States Department of Agriculture, Marketing Service, Oklahoma City, Oklahoma.

*** Production figures for 1939, Agricultural Adjustment Administration office, Stillwater, Oklahoma.

† Oklahoma State price of cotton 1910 to 1939 as calculated by K. D. Blood and Trimble R. Hedges, Oklahoma Experiment Station Bulletin, No. 238, December 1939, p. 24.

TABLE IV

Interpolated Acreages, Yields, Production, Gross Value, and Calculated Price of Corn 1909 to 1939, for McCurtain County, Oklahoma

Year	Census reported acres harvested*	Interpolated acres harvested**	Interpolated yield per acre** (bu.)	Estimated production (bu.)	Price per bushel***	Gross value of corn	Index of gross value of corn 1910-1914 = 100
1909	29,373	29,373	19.3	565,742	$ .55 ‡	$ 311,158	94
1910		37,042	17.4	644,531	.60 ‡	386,719	107
1911		45,122	6.8	306,830	.61	187,166	51
1912		51,352	18.7	960,282	.69	662,595	159
1913		51,705	10.5	542,902	.61	331,170	90
1914		49,945	11.4	569,373	.73	415,642	94
1915		52,648	25.6	1,347,789	.69	929,974	223
1916		61,022	11.1	677,344	.70	474,141	112
1917		65,928	6.6	435,125	1.41	613,526	72
1918		56,528	5.5	310,904	1.70	528,537	51
1919	61,111	61,111	16.5	1,009,658	1.58	1,595,260	167
1920		56,727	19.6	1,111,849	1.26	1,400,930	184
1921		58,955	17.8	1,049,399	.47	493,218	174
1922		58,249	13.0	757,237	.56	424,053	125
1923		56,294	8.5	478,499	.88	421,079	79
1924	46,626	46,625	14.2	660,947	.94	621,290	109
1925		41,335	5.9	243,876	1.00	243,876	40
1926		37,714	21.3	803,308	.78	626,580	133
1927		50,502	22.7	1,146,395	.68	779,549	190
1928		48,083	20.5	985,701	.81	798,418	163
1929	47,994	47,994	13.9	667,310	.82	547,194	110
1930		54,153	14.8	801,464	.79	633,157	133
1931		60,734	17.5	1,062,845	.49	520,794	176
1932		64,494	24.4	1,573,654	.25	393,413	261
1933		59,918	9.9	593,188	.40	237,275	98
1934	47,145	47,145	7.8	368,910	.68	250,859	61
1935		51,398	19.1	981,702	.86	844,264	163
1936		40,330	9.2	371,036	.85	315,381	61
1937		38,303	25.5	976,726	.97	947,424	162
1938		39,060	28.3	1,105,398	.51	563,753	183
1939		42,156	20.5	864,198	.53‡	458,025	143

* United States Census reports for 1910-1920-1930, and United States Census of Agriculture for 1925 and 1935.

** Crop and Livestock Estimates office Oklahoma City, Oklahoma, used in interpolating harvested acreages and yields for McCurtain County in line with the United States Census yields.

*** Yearbook for 1911, United States Department of Agriculture, Washington, D.C.

‡ Prices for 1910 to 1938 taken from Oklahoma Experiment Station Bulletin No. 238, Stillwater, Oklahoma, December 1939, p. 19.

‡ Prices for 1939 taken from Current Farm Economics, Series No. 40, Vol. 13, Nos. 1 and 2, February-April, 1940, pp. 43-44.

TABLE V

Summary of Estimated Gross Values for Cattle, Hogs, Cotton, and Corn, 1910-1939, for McCurtain County, Oklahoma

Year	Gross Value (dollars)				
	Cattle	Hogs	Cotton	Corn	Total
1910	$ 381,734	$ 183,913	$ 356,730	$ 386,719	$ 1,309,096
1911	448,324	218,031	699,060	187,166	1,552,581
1912	533,950	258,790	554,523	662,595	2,009,858
1913	653,646	295,239	730,336	331,170	2,010,391
1914	689,560	296,674	606,048	415,642	2,007,924
1915	661,382	180,075	306,152	929,974	2,077,583
1916	589,843	198,526	1,018,580	474,141	2,281,090
1917	806,903	477,764	2,075,010	613,526	3,973,203
1918	1,438,711	853,380	3,106,525	528,537	5,927,153
1919	2,064,965	831,740	2,891,155	1,595,260	7,383,120
1920	1,313,699	450,083	2,866,059	1,400,930	6,030,771
1921	632,442	242,472	339,971	493,218	1,708,103
1922	671,815	158,836	1,446,733	424,053	2,701,437
1923	656,953	168,688	2,147,100	421,079	3,393,820
1924	656,127	148,377	3,670,227	621,290	5,005,021
1925	611,033	211,857	4,071,571	243,876	5,138,337
1926	602,282	240,878	1,106,356	626,580	2,576,096
1927	626,883	188,821	1,388,292	779,549	2,983,545
1928	886,362	291,949	2,040,775	798,418	4,017,504
1929	651,994	179,219	1,712,174	547,194	3,090,581
1930	550,258	148,239	1,002,634	633,157	2,334,288
1931	447,610	68,536	899,815	520,794	1,966,755
1932	436,310	50,528	367,820	393,413	1,248,071
1933	514,383	65,852	626,544	237,275	1,444,054
1934	506,392	47,722	546,637	250,859	1,351,610
1935	1,107,201	160,277	308,470	844,264	2,420,212
1936	1,047,819	135,521	764,675	315,381	2,263,396
1937	1,426,114	168,494	1,092,870	947,424	3,634,902
1938	1,295,512	108,277	447,700	563,753	2,379,242
1939	1,136,357	92,719	533,684	458,025	2,220,785

TABLE VI

Indexes of Production, Price, and Gross Value of Cattle, Hogs, Cotton, and Corn and Total Gross Value for McCurtain County, Oklahoma, from 1910 to 1939
1910 to 1914 Average = 100

Year	Indexes of Production				Indexes of Price				Indexes of Gross Value				Total Gross Value
	Cattle	Hogs	Cotton	Corn	Cattle	Hogs	Cotton	Corn	Cattle	Hogs	Cotton	Corn	
1910	81	64	51	107	88	113	117	92	71	73	61	97	74
1911	102	103	110	51	82	84	106	95	83	87	119	47	87
1912	105	108	102	159	95	95	90	106	99	103	94	167	113
1913	106	111	118	90	115	105	102	94	121	118	124	85	113
1914	107	114	119	94	120	103	85	112	127	118	103	105	113
1915	102	79	65	223	121	90	76	106	122	72	52	234	117
1916	83	67	144	112	132	117	118	107	109	79	173	120	128
1917	94	97	186	72	160	194	186	217	149	191	352	155	223
1918	149	153	210	51	180	221	247	262	266	341	527	133	333
1919	212	144	188	167	181	228	256	243	381	332	491	402	415
1920	162	102	192	184	151	175	249	193	243	180	486	353	339
1921	121	94	59	174	97	102	97	72	117	97	58	124	96
1922	134	56	150	125	93	112	160	86	124	63	245	107	152
1923	137	73	158	79	89	91	226	135	121	67	364	106	191
1924	121	61	264	109	87	96	232	144	104	59	623	157	281
1925	112	56	353	40	102	150	200	154	113	85	691	61	289
1926	98	58	148	133	114	165	125	120	111	96	188	158	145
1927	91	57	172	190	128	131	135	104	116	75	236	197	168
1928	97	100	212	163	171	115	160	124	164	117	346	201	226
1929	71	58	187	110	172	122	152	126	120	72	291	138	174
1930	75	51	159	133	136	115	105	121	102	59	170	160	131
1931	96	34	242	176	92	79	62	75	88	27	153	131	111
1932	116	43	131	261	70	46	47	38	81	20	62	99	70
1933	154	59	155	98	62	44	67	62	95	26	106	60	81
1934	150	36	91	61	63	53	100	105	94	19	93	63	76
1935	191	56	53	163	108	113	97	132	204	64	52	213	136
1936	174	44	134	61	112	123	94	132	194	54	130	80	127
1937	214	52	204	162	124	127	89	149	263	67	185	239	204
1938	206	41	114	183	117	104	65	79	233	43	76	142	134
1939	196	52	127	143	108	85	70	82	210	37	91	115	132

TABLE VII

Number of Farms, Total Land in Farms, Average Size of Farms, Total Crop Land, Total Grazing Land and Total Woodland by Periods from 1910 to 1935 for McCurtain County, Oklahoma

Year	Number of farms	Total land in farms (acres)	Average size of farm (acres)	Total crop land (acres)	Total grazing land (acres)	Total wood-land (acres)
1910	1954	137,823	70.5	61,002	4,801*	72,020*
1920	4511	313,018	69.4	160,877	9,509	142,632
1925	4366	252,753	57.9	143,759	77,577	9,805
1930	4221	253,395	60.0	150,826	60,047	29,532
1935	5092	313,364	61.5	162,350	85,002	47,971

* Acreages in grazing and woodland for 1910 estimated on the basis of percentage distribution in 1920.

Source: The United States Census for 1910-1920-1930, United States Bureau of Census, Washington, D. C. Also, the United States Agricultural Census for 1925 and 1935, United States Department of Agriculture, Washington, D. C.

TABLE VIII

Percent Change from Previous Census for Total Land in Farms, Average Size of Farms, Total Crop Land, Total Grazing Land

Year	Number of farms	Total land in farms	Average size of farm	Total crop land	Total grazing land	Total wood-land
1910					*	*
1920	+130.9	+127.1	- 1.6	+163.7	+ 98.1	+ 98.0
1925	- 3.2	- 19.3	-16.6	- 10.6	+715.8	- 93.1
1930	- 3.3	+ .3	+ 3.6	+ 4.9	- 22.6	+201.2
1935	+ 20.6	+ 23.7	+ 2.5	+ 7.6	+ 41.6	+ 62.4

* Acreages in grazing and woodland for 1910 estimated on the basis of percentage distribution in 1920.

Source: The United States Census for 1910-1920-1930 and the United States Agricultural Census for 1925 and 1935, United States Department of Agriculture, Washington, D. C.

APPENDIX II

Land Utilization

1. Identification: Farm number
2. Total acres in farm
3. Total crop land
4. Total grazing land
5. Total woodland

Appraised Valuation [45]

6. Appraised value per acre of crop land
7. Total appraised value of crop land
8. Appraised value per acre of grazing land
9. Total appraised value of grazing land
10. Appraised value per acre of woodland
11. Total appraised value of woodland
12. Appraised value per acre of all land
13. Total appraised value of all land
14. Appraised value per acre of improvements
15. Total appraised value of improvements
16. Appraised value per acre of all land and improvements
17. Total appraised value of all land and improvements

Taxes

18. Total amount of unpaid taxes on January 1, 1939
19. Unpaid taxes per acre on January 1, 1939

45/ All appraised valuations are taken from appraisal reports made by appraisers in the Division of Land Acquisition, Soil Conservation Service, United States Department of Agriculture, Fort Worth, Texas.

20. Number years taxes unpaid as of January 1, 1939

21. Year property became taxable

Mortgage Record

22. Amount of mortgage at time of foreclosure

23. Mortgage debt per acre at time of foreclosure

24. Number of first mortgages from first ownership to 1-1-1939

25. Number of second mortgages from first ownership to 1-1-1939

26. Number of acres mortgaged for each mortgage

27. Date of release of first mortgage

28. Number of mortgage transfers

29. Acres mortgaged on each transfer

30. Date of release of each mortgage transferred

Assessed Valuations 46/

31. Total assessed value of all land

32. Assessed value per acre of all land

33. Total assessed value of all improvements

34. Assessed value per acre of all improvements

35. Total assessed value of all land and improvements

36. Assessed value per acre of all land and improvements

37. Total assessed value of all land in percent of total appraised value of all land

38. Total assessed value of all land and improvements in percent of total appraised value of all land and improvements

39. Number of years from first year taxable to first year delinquent

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46/ All assessed valuations are taken from appraisal reports made by appraisers in the Division of Land Acquisition, Soil Conservation Service, United States Department of Agriculture, Fort Worth, Texas.

Type of Ownership

40. Type of ownership (corporate, private, private non-resident, and county)

Land Transfers

41. Number of legal transfers

42. Acres conveyed in each transfer

43. Kind of deed issued with each transfer

44. Date of each transfer

45. Number of years between transfers

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