August 8, 1935

To the Committee on Graduate Study:

I submit herewith a thesis written by Mr. James Hayes Marshall and entitled "Farm Land Values and Land Transfers in Tennessee", and recommend that it be accepted for eighteen quarter hours credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Agricultural Economics.

L. E. Allred

Major Professor

At the request of the
Committee on Graduate Study,
we have read this thesis,
and recommend its acceptance.

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E. D. Stivers

Accepted by the Committee

J. O. Arnett

Chairman

FARM LAND VALUES AND LAND TRANSFERS IN TENNESSEE

-o-

A THESIS

Submitted to the Graduate Committee
of
The University of Tennessee
in
Partial Fulfillment of the Requirements
for the degree of
Master of Science

by

JAMES H. MARSHALL

August 1935

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Chapter I.

INTRODUCTION

While all industries are ultimately dependent on land, agriculture is primarily a land industry. Land determines the type of agricultural production in any section or community. Because of its immobility and natural characteristics, land sets the most definite limits to agricultural production in any section.

Some Definitions of Land

David Ricardo, the great classical English economist, defined land as "the original and indestructible powers of the soil".(1)

Alfred Marshall, the English economist, defined land as "the material and forces which nature gives freely for man's aid in land and water, in air, light and heat".(2)

The difference between the legal and economic concept can well be illustrated by contrasting Marshall's definition with the definition of land as given in Kent's Commentaries:

> Land according to Lord Coke includes not only the ground or soil, but everything which is attached to the earth, whether by the course of nature as trees, herbage and water, or by the hand of man, as houses and other buildings; and which has an indefinite extent, upward as well as downward, so as to include everything terrestrial, under or over it.(3)

On every farm and in every agricultural community much human effort has been put into modifying the original state of the land. Trees have been cut down, stumps and rocks cleared away, wet lands drained, dry lands irri-

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(1) Yoder, Fred R., Introduction to Agricultural Economics, p. 86.
(2) Ely, Richard T., Elements of Land Economics, p. 12.
(3) Ibid, p. 13.

gated, fertility added, and the soil fitted to the growing of special crops. Some lands owe most of their value to their highly artificial improvements. Improvements on the land become inseparable from the land itself. When farm land is sold it includes the fences, buildings, and all other improvements on the land. They are considered as essentially part of the land.

The term real estate is used in economics because for so many purposes the land and improvements form a natural economic and income-producing unit. In this report the terms farm real estate and farm land and buildings are used synonymously. These terms, as used in this report, refer not only to the land and the buildings on the land, but to all other improvements on the land as well.

Object of the Study

The relationship of land values, land tenure, land policies, and other phases of land economics to important social and economic problems bearing primarily upon agriculture, but at the same time affecting the whole body politic, furnishes at once the need and the justification of careful studies in these fields. This study is intended to bring out some of the economic factors connected with the larger problems of land in Tennessee.

A large volume of data pertaining to farm real estate transfers in Tennessee were collected by the Tennessee Agricultural Experiment Station in cooperation with the Federal Civil Works Administration in 1934. The purpose of this report is to analyze those phases of the data which are most complete and which are thought to be of most significance. It is proposed to study the trend of farm real estate transfers in the various

areas of the state and attempt to explain the results obtained from this study; to study the financial arrangements made in the transfer of farm real estate in Tennessee; to ascertain the kind of deed used; to compare voluntary transfers and foreclosure sales as to size of farm and value per acre in the different sections of the state; to determine the ratios of assessed values to sale values in each county of the state; to study the effect on farm real estate values of a number of factors commonly thought of as influencing such values; and to attempt to determine the social and economic significance of the factors studied.

Sources of Data

All data pertaining to farm real estate values for the long-time period 1880-1930 were obtained from the United States Census reports. In many cases census data were used for comparison with and to supplement other sources. Crop reporter data of the United States Department of Agriculture has been used for comparison and as a supplementary source for that period for which such data is available, namely, 1912-1935.

The primary source of data used in this study is the data collected by the Tennessee Agricultural Experiment Station in cooperation with the Federal Civil Works Administration during the winter and early spring of 1934. The collection of farm real estate transfer data constituted only one of three phases of the project. The other two phases dealt with tax delinquency and tax sales. The object of the farm real estate transfer phase of the project was to obtain for a series of years (1) an accurate measure of the average price of farm real estate and (2) an index of the volume of real estate transfers.

The workers in each county of the state were instructed to transfer

from the county deed records information concerning each real estate transfer listed in those records. A form was filled out for each transfer. A sample card is shown in Fig. 1.

Many factors affect the price at which a given piece of property will be exchanged. Forced sales customarily bring a lower price than an ordinary sale between a willing seller and a willing buyer. Sales between relatives or in settlement of estates may bring less than normal prices. It was, therefore, necessary that for each sale the type of deed be designated and, in so far as possible, that the type of sale, whether entirely voluntary, or a forced sale, or a sale for taxes, be indicated. Where sales were made for gift, inheritance, "love and affection," etc., notation was made under "Remarks", since these factors presumably affected the price.

No sales of under three acres and no sales for land inside the limits of a city were taken off.

Limitations of Data

The workers were instructed to begin with the most recent sales (those for 1933) and work backward, month by month, and year by year. It is evident that these instructions were not closely adhered to in some counties. Reports as to the completeness of the work in the various counties are by no means complete. Thus, from the available records, it is impossible to determine the exact period covered in each county. The lag in filing transfers tends to increase this complication. Some counties covered much longer periods than others, varying from a very few transfers covering only a two year period in one county to a comparatively large

U.S.D.A.—B.A.E.
Farm Finance Form 3

FARM REAL ESTATE TRANSFER

Card No. _____
State _____
County _____
Minor civil div. _____

File: Reference _____ Volume _____ Page _____

1. Buyer—Name _____ Address _____

2. Seller—Name _____ Address _____

3. Date of transfer _____ (Month) (Day) (Year) 4. Date filed _____ (Month) (Day) (Year) 5. Amount of Federal revenue stamps _____

6. DESCRIPTION	Sec.	Twp.	Range	Acres
Total acres	x x x	x x x	x x x	

7. Consideration:
(a) Total _____
(b) Cash paid _____
(c) 1st mtg _____
(d) 2d mtg _____
(e) Other arrangement _____

8. Assessed value _____
(a) Total _____
(b) Land alone _____
(c) Improvements _____
(d) Date of assessment _____ (Nearest to date of transfer)

9. Kind of transfer (check which (√))
(a) Voluntary sale ☐
(b) Forced sale:
(1) Foreclosure ☐
(2) Assignment ☐
(3) Tax sale ☐
(c) Gift, devise, or descent ☐

10. Kind of property (check which (√))
(a) Farm with buildings ☐
(b) Farm without buildings ☐
(c) Uncultivated land (other than forest) ☐
(d) Forest land ☐
(e) Cannot ascertain ☐

11. Kind of deed (check which (√))
(a) Warranty deed ☐
(b) Quit claim deed ☐
(c) Sheriff deed ☐
(d) Trustee deed ☐
(e) Tax deed ☐
(f) Contract for deed ☐
Kind of deed _____
(g) Bond for title ☐
Amount of bond _____
(h) Other ☐
State which _____

12. If the sale was a forced sale, please state:
(a) Kind of action, if any _____
(b) Amount of claim _____

13. If sale was a foreclosure, was property occupied by owner at time of sale?
Yes ☐; No ☐; Unknown ☐

Initials of record taker _____

U. S. GOVERNMENT PRINTING OFFICE: 1933 8—8454

(Use other side for remarks)

Fig. 1. Form Used for Recording Farm Real Estate Transfer Data Taken From County Deed Records

number of transfers covering a period of over twenty years in some few counties.

Since the completeness of the work is not known it is impractical to obtain an index of the volume of real estate transfers. This information, based on crop reporter estimates, is available for the state as a whole for the period 1912-1935. Crop reporter data is not available for individual counties or other areas within the state. However, the relative importance of each type of transfer may be determined in any county or other area from the data available. This type of study will show the relative position of each type of transfer as compared to other types of transfers, but cannot be used to indicate with any degree of accuracy the velocity of transfers.

When considered from either the public or private points of view, information concerning farm realty valuations has been widely useful when made available for counties and larger areas. The adequacy of figures applicable to the larger areas, however, has often been questioned, both by those at a distance whose skepticism might be expected and those nearby who are familiar with local variations in soil productivity and in the selling prices of land and improvements. When the facts of farm real estate valuation are presented by civil divisions smaller than the county, much is done to dispel illusions which persons at a distance might have as to the uniformity of land values within counties.(4) Such facts should assist outsiders who may consider identifying themselves with local agriculture to select localities upon a more adequate basis when civil district averages for the value of farm dwellings, other buildings,

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(4) Stewart, C. L., Farm Real-Estate Valuations in Illinois, p. 544.

and the land itself are available. However, it is beyond the scope of this publication to refine the data on a civil district basis. Desirable as this may seem, it is considered that averages for counties and larger areas are sufficiently refined for a study so broad as this.

Areas Studied

All of the counties in the state are included in this study. However, in a number of instances it was desirable to study certain factors in relation to soil type. In order to facilitate such studies the state was divided into nine major soil areas. Only those counties which possess largely one soil type were included in these studies. Each area was represented by only those counties which were located practically altogether within that area. It was assumed that such counties would be representative of the soil area as a whole. The location of these counties is shown in Fig. 2. The red lines indicate the boundaries of the major soil areas. The cross-hatched counties possess the same soil types as the other counties in those areas, but they have been studied independently of their respective groups because of the very evident urban influence prevailing in the cross-hatched counties. It was assumed that the influence of urban development in those particular areas probably would tend to overshadow any influence of soil type on the factors studied. For the two areas possessing only one representative county each, namely, the Unaka Range and the Mississippi Bottoms, the counties used probably are not as truly representative of their respective areas as are the groups of counties in the other areas. There are rather marked gradations of soil type within some of the areas, especially in the East Tennessee Valley, the Eastern Highland Rim, the Western Highland Rim, and the

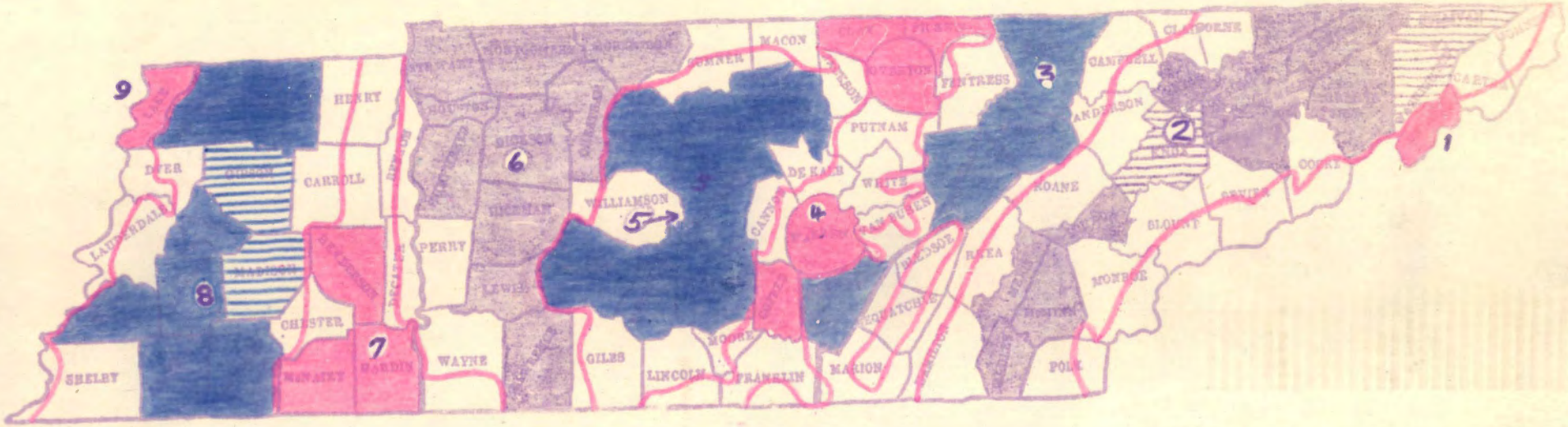


Fig. 2. Counties Used to Represent the Major Soil Areas of Tennessee in Farm Real Estate Studies

1. Unaka Range
2. East Tennessee Valley
3. Cumberland Plateau
4. Eastern Highland Rim
5. Central Basin
6. Western Highland Rim
7. Southwestern Highland Rim
8. West Tennessee Slope
9. Mississippi Bottoms

West Tennessee slope. Some attempt has been made to break the study down to conform to these gradations within areas.

A brief description of the soils and types of farming found in each area are included here in order to form a background for the interpretation of facts presented later.

Unaka Range. The sandy and rocky soils of this area were formed from sandstones, quartzites, and conglomerates.(5) The soils are not suited to general agriculture, but are valuable for timber. In the northern portion of this area there are red and brown clay soils which are fertile and productive, especially where they have accumulated on gentle slopes and in the valleys. A very large portion of the area is not suited to agriculture. The principal types of farming are self-sufficing, part-time, forest products, tobacco, and livestock.

East Tennessee Valley. This is a region of valleys, low hills, knobs, and ridges. The soils are largely of limestone origin. The valley soils are usually deep, red, brown, and grey loams or deep, fertile, red clayey soils of great agricultural value. Thin, yellow, clayey soils of no great agricultural value are found on many of the knobs and ridges. Some of the ridges are often very cherty and poor in plant food, but are well suited to orchards and small fruits. Most of the soils of the northern portion of this area are superior to those of the southern section. The principal types of farming include livestock, general farming, dairy, poultry, tobacco, truck, fruit, part-time, and self-sufficing.

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(5) Pond, Walter F., Geologic Map of Tennessee. Tennessee Division of Geology, Nashville, 1933. All of the soil descriptions included here were taken from information on this map.

Cumberland Plateau. The soils of this area vary from sandy and stony to clayey, but on the average they are loamy. They are easily tilled and of moderate fertility, but capable of much improvement. They need in particular both phosphate and lime. They are especially suitable to Irish and sweet potatoes and other truck crops, and to both large and small fruits. The region is now sparsely settled and is suitable for grazing. The principal types of farming include self-sufficing, part-time, potatoes, and general farming.

Eastern Highland Rim. The soils of this area are variable. Some of them are fertile and rather heavy brown and red loams. As a rule these soils are excellent for most farm crops, including tobacco; but the lowest horizon is quite cherty, and where the rocks are worn down to this the soils lack fertility, forming the "barrens" of the Highland Rim. Self-sufficing, part-time, forest products, general farming, and livestock constitute the principal types of farming of the region.

Central Basin. The soils of this region are very fertile, and excellent for practically all kinds of farming and gardening. There is also a considerable amount of "glady" lands or shallow soil areas, suited only to pasture or timber. General livestock farming, some dairy, wheat, tobacco, cotton, and self-sufficing make up the important types of farming in the Central Basin.

Western Highland Rim. The soils of this section are of the same type as those on the Eastern Highland Rim. With the exception of an area on the northern section of the Western Rim, the soils of the Western Rim are generally poorer than those of the Eastern Rim. A larger portion of the Western Rim is characterized by thin, grey or

yellowish silt loams, containing an abundance of chert fragments, and lacking especially in phosphates and lime than is the case on the Eastern Rim. The principal types of farming on the Western Rim are self-sufficing, part-time, general farming, livestock, some tobacco, and peanuts. Corn is the important enterprise on the bottoms.

Southwestern Highland Rim. This region is characterized by a variety of soil types. A considerable part of the region consists of easily tilled, reddish to brownish grey silt loams of moderate fertility, which respond well to good treatment. These soils are naturally poor in lime and phosphate and are generally poor in nitrogen. Red and grey loams containing more or less fragmentary chert, siliceous loam, and poor gravelly soils are found scattered throughout the area. Cotton, self-sufficing, general farming, some livestock, and corn on the bottoms constitute the principal types of farming of the area.

West Tennessee Slope. Highly productive silt loams which are easy to till and well adapted to a great variety of farm crops are found in the western section of this area. The central and eastern sections of the area are characterized by brownish grey silt loams and red colored soils. Minor areas of rather poor grey soils are found in this section. Quite a variety of types of farming are found in this area. Cotton farming predominates in the southern section, with dairy, truck, and fruit receiving considerable emphasis in the Memphis area. Livestock, dark fire-cured tobacco, and general farming are the principal types in the northern section of the area. Truck, strawberries, sweet potatoes, and cotton are the predominating types in

the central portion of this area.

Mississippi Bottoms. The alluvial soils of this area are of high fertility, but are apt to be swampy along the streams. Cotton is by far the predominating type of farming in this area.

Review of Literature

No attempt is made to completely survey the literature in the field of land economics. Such an attempt is beyond the scope of this report. However, brief statements are presented concerning what appear to be some of the outstanding studies which are directly related to the material included in this report.

Jensen and Russell have made a rather extensive economic study of farm real estate in Anderson County, a representative cotton area of the Piedmont region of South Carolina.(6) They made an analysis of over 10,000 sales deeds in the county courthouse to trace the movement of land prices; an analysis of 185 deeds for tracing recent changes; an analysis of 167 mortgages for tracing recent changes; used 694 farm management surveys for special data; and interviewed several merchants and real estate men. They analyzed the data from the standpoint of determining (1) the movement of land prices, (2) the basis for the value of land, (3) how to profit rather than lose by land-price changes, (4) an economic land-utilization program for the area, and (5) an economic land-holding basis for the area.

Russell has continued the Anderson County investigation with the objective of (1) analyzing land prices and trends during recent years,

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(6) Jensen, Ward C., and Russell, B. A., Studies of Farm Land Prices and Ownership, pp. 1-50.

and (2) determining the relation of farm income to value of land during specified years.(7)

Forster has investigated, in the Bluegrass region of Kentucky, the economic and social forces and conditions which tend to influence the prices paid for farm land in a specific region at a time of active speculation, and the effect of the rapid increase in land prices on agricultural production and on the economic and social status of the farming classes.(8) The basic material for his investigation was procured by questioning buyers and sellers of farm land and recording their answers on a uniform schedule. Data concerning farm income and rents were secured by survey.

Stewart has made an analysis of 1930 census data, and supplementary information for previous and subsequent dates, on farm real estate valuations in Illinois with special reference to township averages.(9)

Hinman has presented by years a record of all the true sales of farm land by warranty deed in 11 Nebraska counties from 1873 to 1933 and has studied the data in connection with several economic factors affecting land price.(10) A record of all land transfers other than true sales in the same counties during the years 1920-33 is also presented. The counties from which the data were obtained are grouped in four principal type-of-farming areas.

Ezekiel has made a study of factors affecting farmers' earnings

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(7) Russell, B. A., An Investigation of Farm Real Estate Values in Anderson County South Carolina, pp. 1-16.
(8) Forster, G. W., Land Prices and Land Speculation in the Bluegrass Region of Kentucky, pp. 37-74.
(9) Stewart, C. L., Farm Real-Estate Valuations in Illinois, pp. 543-616.
(10) Hinman, Eleanor H., History of Farm Land Prices in Eleven Nebraska Counties, 1873-1933, pp. 1-60.

in Southeastern Pennsylvania, in which he has measured the net relation of several factors to the value of farms per acre.(11)

Haas correlated the sale prices of 160 farms in Blue Earth County, Minnesota, sold in 1916, 1917, 1918, and 1919, with the factors influencing land prices, namely, value of buildings per acre, type of land, crop yields, distance from market, size of adjacent city or village, and type of road upon which located, and derived from this correlation an equation from which the probable sale price of any other farm land in the same general territory might be determined.(12)

Gray and Lloyd conducted an investigation to determine the extent of increase in prices of Iowa farm lands, with special reference to the year 1919, the causes of the unusual activity in the buying and selling of lands in that year, and the probable effects of this activity upon the farming industry in the State of Iowa.(13)

Chambers has made a very thorough study of the relation of land income to land value basing his study on 154,653 cash-rented farms in 567 counties in the United States.(14)

Mereness has made a study of the farm mortgage situation, with major object of determining some of the factors associated with foreclosures of farm mortgages and the resulting losses in the south-

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(11) Ezekiel, Mordecai, Factors Affecting Farmers' Earnings in Southeastern Pennsylvania, pp. 1-64.
(12) Haas, G. C., Sale Prices as a Basis for Farm Land Appraisal, pp. 1-51.
(13) Gray, L. C., and Lloyd, O. G., Farm Land Values in Iowa, pp. 1-45.
(14) Chambers, Clyde R., Relation of Land Income to Land Value, pp. 1-132.

eastern part of Alabama.(15) His study is based on a statistical analysis of the farm mortgage activities of nine large lending agencies operating in five counties in Southeast Alabama for the period January 1, 1917 to December 31, 1931.

Johnson has presented some facts relative to farm mortgage foreclosures in Minnesota, particularly with reference to reasons for such foreclosures.(16)

Aull and Riley have issued a preliminary report of a study of farm real estate tax delinquency in South Carolina, based on a study conducted by the South Carolina Agricultural Experiment Station in cooperation with the Federal Civil Works Administration.(17)

Newton and Hedrick have conducted an investigation into assessment and equalization practices existing in Michigan with particular emphasis on those points which affect farm real estate taxes.(18)

Dreesen has made a study of assessment practices in Oregon with the object of discovering any existing inequalities or tendencies in the assessment of real properties; probable causes and effects of such tendencies; and possible remedies for them.(19)

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(15) Mereness, E. H., Farm Mortgage Loan Experience in Southeast Alabama, pp. 1-18.
(16) Johnson, E. C., Farm Mortgage Foreclosures in Minnesota, pp. 1-31.
(17) Aull, G. H., and Riley, Ernest, Real Estate Tax Delinquency in South Carolina, pp. 1-30.
(18) Newton, R. Wayne, and Hedrick, W. O., Farm Real Estate Assessment Practices in Michigan, pp. 1-80.
(19) Dreesen, W. H., A Study in the Ratios of Assessed Values to Sale Values of Real Property in Oregon, pp. 1-46.

Chapter II.

RECENT TRENDS OF FARM REAL ESTATE TRANSFERS IN TENNESSEE

In the pioneer stage of agricultural development farm land was superabundant and its ownership easily acquired. There was little necessity for farmers to obtain land by renting it from others, and those who continued long as tenants were largely of the less efficient and enterprising class. As land in the older communities became scarce, the more enterprising of the younger generation who were unlikely to inherit land pushed on to new regions where farm ownership could be easily acquired. The competition of the newer areas of virgin soil prevented an abnormal increase in the value of land in the older regions and made it relatively easy to achieve land ownership.(1)

Up to about 45 years ago the man who desired to become the owner of a farm could still obtain land of good quality by homesteading. By 1890, however, good free land in humid regions was becoming scarce. Following 1900 the land available for homesteading consisted largely of dry-farming land.(2) Now that we have passed beyond the pioneer stage and have entered upon a more mature phase of national development, we find ourselves confronted with many problems arising from the activities connected with the buying and selling of farm real estate.

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(1) Gray, L. C., and others, "Farm Ownership and Tenancy", U. S. D. A. Yearbook of Agriculture, p. 507. Government Printing Office, Washington, 1923.

(2) Gray, L. C., "Helping Landless Farmers to Own Farms", U. S. D. A. Yearbook of Agriculture, p. 271. Government Printing Office, Washington, 1920.

Types of Land Transfers

It is desirable for the purpose of this study to classify transfers on the basis of whether the sale was between a willing buyer and a willing seller, or was a forced sale, or a gift, inheritance, or similar transfer.

Voluntary sale indicates the usual transaction between a buyer and seller, both acting as a result of their own free will. Voluntary sales have been divided into two groups, namely, (1) those for which the true consideration was stated in the deed record and (2) those for which the true consideration was not stated in the deed record.

Forced sales are of three kinds, ordinarily: (1) "Foreclosure", where the holder of a mortgage institutes and brings to a conclusion foreclosure proceedings resulting in the sale of the property; (2) "Assignment" refers to cases where the borrower assigns the property to the lender in satisfaction of a debt, but without the legal action of foreclosure; (3) "Tax sale" refers to transfer of property as a result of tax delinquency. All transfers of title, even though there was a redemption period, were recorded.

Transfers by gift include gift sales, sales for "love and affection", transfers through devise (by a will), or descent (inheritance). This does not include transfers at the sale of an estate, even if one of the heirs was the purchaser. Where an heir bought at an estate sale, the transfer was recorded as a voluntary sale.

Records of "Deeds to Secure Debt", "Loan Deeds", "Deeds of Trust", or any corresponding deed that was not a real transfer, but merely an

evidence of debt, were not taken off.

Some Comparisons of Land Transfers in Tennessee, the East South Central States, and the United States

Data showing changes in farm ownership have been published annually by the United States Department of Agriculture since 1926. These data show changes by geographic divisions and by states, but they are not available for divisions within the states. The data are based on estimates obtained from crop reporters.

Changes in farm ownership by various methods in Tennessee, the East South Central States, and the United States, during the period 1926-1934, are shown in Table I and Fig. 3. The volume of change is measured in terms of the number of farms changing ownership per 1,000 of all farms.

Voluntary Sales. Part A, Fig. 3, shows that there were fewer voluntary sales per 1,000 of all farms in Tennessee than in the East South Central division or the United States from 1926 to 1931. Since 1931, however, turnover by voluntary sales has been greater in Tennessee than in either of the aforesaid divisions. In 1926, there were 29.1 voluntary sales per 1,000 of all farms in Tennessee. This number declined yearly until 1931, when the low point of 16.7 was reached. Since 1931 there has been a gradual increase in voluntary sales in Tennessee up to 20.0 in 1934. There was a constant decline in the volume of voluntary sales from 1926 to 1931 in each of the three areas mentioned, but, in 1931, the low point was reached in Tennessee, whereas the decrease continued in the other areas until 1932. The increase in frequency of voluntary sales since 1931 has been greater

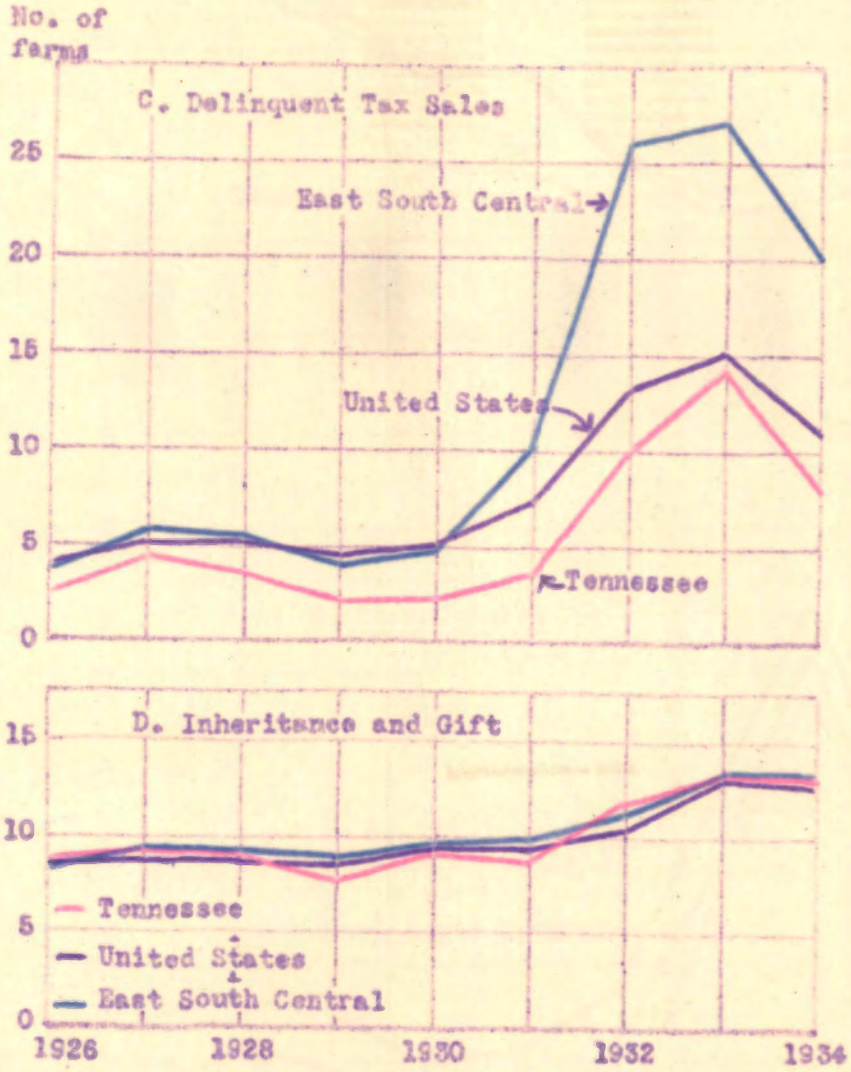


Fig. 3.- Number of Farms Changing Ownership By Various Methods per 1,000 of All Farms in Specified Regions, 1926-1934 (continued)

Based on Table I.

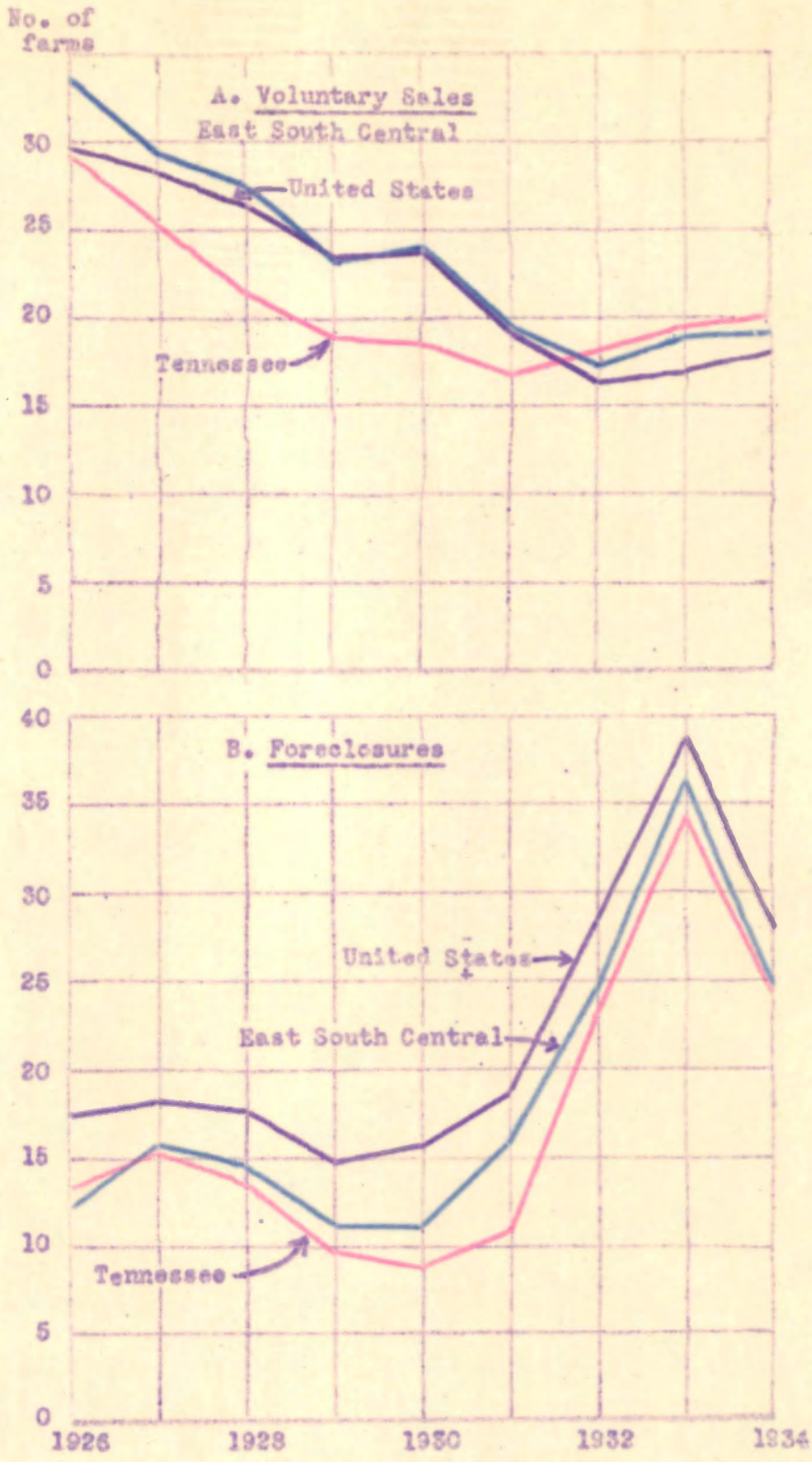


Fig. 3.- Number of Farms Changing Ownership by (Cont.) Various Methods per 1,000 of All Farms in Specified Regions, 1926-1934

Based on Table I.

Table I.

NUMBER OF FARMS CHANGING OWNERSHIP BY VARIOUS METHODS PER 1,000 OF ALL FARMS,
12 MONTHS ENDED MARCH 15, 1926-1934

A. Tennessee

Year	Voluntary Sales and Trades	Forced Sales Related		Inheritance and Gift	Administrators' and Executors' Sales	Miscel-laneous and Unclassified	Total All Classes
		Delinquent Taxes	Foreclosure of Mortgages, Bankruptcy, etc.				
1926	29.1	2.7	13.3	8.9		1.9	55.9
1927	25.3	4.5	15.3	9.4	7.7	.8	63.0
1928	21.3	3.8	13.6	9.2	7.0	1.1	56.0
1929	18.9	2.3	9.6	7.7	6.5	.6	45.6
1930	18.5	2.3	8.8	9.1	5.7	1.8	46.2
1931	16.7	3.6	10.9	8.7	5.4	2.0	47.3
1932	18.0	10.1	23.0	11.8	8.4	2.3	73.6
1933	19.5	14.5	34.2	13.2	7.5	2.9	91.8
1934	20.0	8.4	24.2	13.1	7.5	2.8	76.0
	B. East South Central States						
1926	33.5	4.0	12.4	8.1		1.8	59.8
1927	29.3	5.8	15.9	9.3	7.5	.8	68.6
1928	27.5	5.4	14.6	9.2	6.6	1.1	64.4
1929	23.4	4.0	11.2	8.8	5.4	.9	53.7
1930	23.9	4.9	11.2	9.3	5.8	1.4	56.5
1931	19.4	10.0	15.9	9.9	5.6	1.8	62.6
1932	17.2	26.0	24.6	11.1	6.2	2.1	87.2
1933	18.9	27.1	36.4	13.7	7.5	3.0	106.6
1934	19.1	20.2	24.7	12.7	6.5	2.7	85.9

(Continued)

Table I.
(Continued)

NUMBER OF FARMS CHANGING OWNERSHIP BY VARIOUS METHODS PER 1,000 OF ALL FARMS,
12 MONTHS ENDED MARCH 15, 1926-1934

C. United States

Year	Voluntary Sales and Trades	Forced Sales Related		Inheritance and Gift	Administrators' and Executors' Sales	Miscel-laneous and Unclassified	Total All Classes
		Delinquent Taxes	Foreclosure of Mortgages, Bankruptcy, etc.				
1926	29.6	4.2	17.4	8.0		2.2	61.4
1927	28.3	5.1	18.2	8.8	7.0	1.1	68.5
1928	26.3	5.2	17.6	8.9	6.7	1.3	66.0
1929	23.5	4.7	14.8	8.5	5.4	1.1	58.0
1930	23.7	5.1	15.7	9.3	6.1	1.6	61.5
1931	19.0	7.4	18.7	9.4	5.7	1.7	61.9
1932	16.2	13.3	28.4	10.4	6.2	2.2	76.6
1933	16.8	15.3	38.8	13.1	7.0	2.6	93.6
1934	17.8	11.1	28.0	12.6	6.7	2.4	78.6

Source: Wiecking, E. H., The Farm Real Estate Situation, 1929-30, pp.41-44.
Stauber, B. R., The Farm Real Estate Situation, 1933-34, pp.30-33.

in Tennessee than in the East South Central division or in the United States as a whole.

In 1926, the frequency of voluntary sales was 81 in Florida and 59.4 in New Jersey, the two highest ranking states.(3) The rates of turnover in these same states were 23.8 and 24, respectively, in 1934.(4) Iowa reported the lowest frequency of voluntary sales in 1926, namely, 15.5. The frequency of voluntary sales in Iowa declined to 11.8 in 1933, and increased to 14.9 in 1934. South Dakota, with 9.8 reported the lowest frequency in 1934. The highest frequency in 1934, 26.4, was reported from Oregon. In 1934, the greatest average frequency of voluntary sales was reported from the Pacific and Middle Atlantic States, with 20.9 and 20.1 transfers per 1,000 farms, respectively, whereas the lowest frequency occurred in the West North Central and East North Central States, with averages of 15.5 and 16.5, respectively.

Not a great deal is known directly concerning the sellers of farms. It is generally recognized, however, that for the last several years owners who were not pressed to sell have usually preferred to hold their farms off the market rather than to sell at depression prices. On the other hand, creditor agencies with increasing holdings resulting from foreclosure have been desirous of selling as many of their farms as possible without making too great sacrifices in the matter of price. With so many farms available from creditor agencies, it seems probable, therefore, that the majority of sales have been

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(3) Wiecking, E. H., The Farm Real Estate Situation, 1929-30, p. 41.
(4) Stauber, B. R., The Farm Real Estate Situation, 1933-34, p.30.

made by them. Futhermore, the lack of opportunities in cities has discouraged the normal farm-to-city movement, and nonfarm investment opportunities have not been such as to encourage the selling of farms for the sake of buying other investments.(5)

The proportion of farms bought by farmers and by local residents increased during 1934 for the first time in the last several years. Until the year 1934, the proportion of local buyers had been declining persistently since 1929, when the proportion was 84 per cent, having reached the low point of 76 per cent in 1933.(6) Of particular interest is the fact that the increase was very general throughout the United States.

The typical farm buyer, under normal conditions, has been closely associated with farming for a considerable part of his life. Thus he may be an active farmer expanding operations or seeking an investment for surplus funds, or he may be a young farmer with aspirations to ownership. Under the depressed conditions of recent years, the proportion of purchases at voluntary sales by active farmers declined from 78 per cent in 1929 to 53 per cent in 1933, but during 1934 the proportion increased to 58 per cent,(7) suggesting a turn in the effective demand for farms on the part of farmers themselves; and it is to men of this type that the continued and sustained market for farm land must look for support. The figures quoted above are averages for the United States. The principal purpose in purchasing farms continues to be for operation, rather than as a speculation or to

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(5) Stauber, B. R., The Farm Real Estate Situation, 1933-34, p. 35.
(6) Ibid, p. 37.
(7) Ibid, p. 38.

rent to others.

Foreclosures. The general trend of foreclosures of mortgages has been very similar in Tennessee, the East South Central States, and the United States since 1926 (Part B, Fig. 3). In each of these areas there was an increase in the frequency of foreclosures from 1926 to 1927, and a decrease from 1927 to 1929. During 1929 there was a continued decrease in Tennessee, no change in the East South Central States, and a slight increase in the United States. From 1930 to 1933 there was a very rapid increase in the frequency of foreclosures in each of the three areas, and from 1933 to 1934 there was an equally rapid decrease in each of the three areas. Throughout the period studied, with the exception of the year 1926, the frequency of foreclosures has been lower in Tennessee than in the East South Central States or the United States. Foreclosure proceedings reached their highest point in 1933. During this year the frequencies of foreclosures in Tennessee, the East South Central States, and the United States were 34.2, 36.4, and 38.8 farms per 1,000 of all farms, respectively (Table I). In 1934, these rates had declined to 24.2, 24.7, and 28, respectively.

In 1933, the highest average frequency of foreclosures was reported from the West North Central States, with 61.5 foreclosures per 1,000 of all farms.(8) The New England States were lowest, with 13.2 foreclosures per 1,000 of all farms. Iowa, with a frequency of 78.3, was the highest ranking state, while Rhode Island was lowest,

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(8) Stauber, op. cit., p. 30.

with a frequency of 3.7 foreclosures per 1,000 of all farms.

The relatively high rate for the West North Central States is due in part to the great concentration of mortgage indebtedness in that area. If the data are adjusted on the basis of percentage of farms mortgaged, rather than rate per 1,000 of all farms, the result is an estimate of the number of forced sales per 1,000 mortgaged farms. On this basis the West North Central States do not appear to be in a worse condition than some of the other geographic divisions. The number of forced sales per 1,000 mortgaged farms for the year ended March 15, 1934, by geographic divisions, is as follows: New England, 29.4; Middle Atlantic, 44.7; East North Central, 60.7; West North Central, 81.2; South Atlantic, 83.3; East South Central, 79.4; West South Central, 54.8; Mountain, 60.2; Pacific, 59.1; and the United States, as a whole, 66.7.(9) The frequency of foreclosures showed an encouraging decline in all geographic divisions from 1933 to 1934.

In 1920 to 1921 prices of farm products declined sharply from the high levels that existed during and following the World War. The years 1924-29 saw some recovery in farm prices, but on the whole prices were considerably below those of the war period, and after 1929 drastic declines again occurred, bringing farm prices to very low levels in 1931, 1932, and 1933. The fall in prices resulted in a great reduction in income on farms, but farm debts remained comparatively high, interest payments did not decrease, and taxes increased for a number of years. This combination of circum-

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(9) Stauber, B. R., op. cit., p. 29.

stances made it difficult for farmers to meet financial obligations, with the result that many mortgages have been foreclosed and many farmers have lost their farms.

In some cases where foreclosure proceedings were instituted, counsel for the debtor is reported to have requested that "instead of the court ordering immediate foreclosure, it should render equity and justice to the debtors by continuing the cases to such time as farm prices more nearly balance with the time at which the mortgage was made", and Supreme Court opinions have been cited as a basis for a court in equity's refusing an action that would result in "peculiar hardship, unconscionable advantage, and oppression".

In other cases sales were prevented, at least temporarily, by means of force. The frequent mention of such cases in the daily press, especially in the Midwest in 1932-33, evidenced the growing concern of farmers for their neighbors who were foreclosed upon. The possibility of deficiency judgments, especially, appears to have given rise to such apprehension.

Another development during the period was the "98-cent sale", in which property was bid in at merely nominal figures, and afterward often turned back to the former owners. This procedure soon met with legal obstacles.

Another phase of the situation was the growing pressure upon legislative bodies for relief. A wide range of proposals were brought forward, including moratoria, refinancing plans, the empowering of courts to continue foreclosure suits, the placing of restrictions upon deficiency judgments, the levy of a tax upon

foreclosures, the extension of the period of redemption, and the providing of committees to assist debtors and creditors in reaching compromise agreements. In some states laws were passed, embodying various proposals. It is beyond the scope of this report to go into that phase of the problem.

During the year 1933-34 many of the problems of farm debtor and creditor were faced in a more realistic manner. The conclusion came to be more generally accepted that no blanket method of adjustment was possible but that each individual case involved certain unique problems requiring specific considerations. The large number of forced sales has been accounted for in large part by those farmers whose debt burden was so heavy relative to the value and income-producing capacity of their farms or whose financial obligations were so complicated that no conciliation or compromise was possible. A considerable number of cases includes those farmers who, although unable under current conditions to meet the claims of their creditors, were able to arrange for partial payments or for extensions, and thus retain possession of their farms. Many farmers have, by means of the refinancing activities of the Farm Credit Administration, been able to consolidate or readjust their financial obligations as to either amount or terms of payment.

Tax Sales. The frequency of delinquent tax sales has been lower in Tennessee than in the East South Central States or the United States during the period 1926-1934 (Part C, Fig. 3). There was a very marked increase in tax sales in each of these three areas

from 1930 to 1933, and a decrease in each area from 1933 to 1934. The number of tax sales per 1,000 of all farms was higher in the East South Central States than in any other geographic division in 1934. In that year 20.2 farms per 1,000 of all farms in the East South Central division were sold as a result of delinquent taxes. In 1933, the South Atlantic and East South Central divisions were highest with 27.3 and 27.1 tax sales per 1,000 of all farms, respectively.(10) The frequency of tax sales in Tennessee has not been nearly so high as in the other states of the East South Central division. Tax sales have been more frequent in Mississippi than in any other state, based on the number of tax sales per 1,000 of all farms. The rate there was 59.9 in 1934, 67.7 in 1933, and 65.8 in 1932. Tax sales have also been very frequent in Louisiana. The East North Central States were lowest in frequency of tax sales in 1933 and 1934. The highest frequency reported from Tennessee was 14.5, in 1933. The rate decreased to 8.4 in 1934.

The declining number of tax sales is doubtless due in part to the increase in farm incomes, in part to the measures adopted by various states to reduce and ease the burden of taxes on farm real estate, and in part to the refinancing activities of the Farm Credit Administration.(11) Since laws in many states have been modified to extend the redemption period, to permit installment payment of taxes, or to prohibit the taking of tax title temporarily, the interpretation of data relating to frequency of tax sales is rather

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(10) Stauber, op. cit., p. 30.
(11) Ibid, p.34.

uncertain.

Inheritance and Gift Transfers. The trend of transfers by inheritance and gift has been practically the same in Tennessee, the East South Central States, and the United States (Part D, Fig. 3). The number of farms changing ownership by inheritance and gift per 1,000 of all farms remained almost constant from 1926 to 1931 in each of the three areas. From 1931 to 1933 there was a small increase in each area. From 1933 to 1934 there was very little change. The lowest number of farms changing ownership by inheritance and gift per 1,000 of all farms in Tennessee was 7.7, in 1929. The highest number, 13.2, was reported in 1933. For several years, the frequency of inheritance and gift transfers has been higher in the South Atlantic States than in any other geographic division.(12) The frequency of inheritance and gift transfers has been lowest in the Mountain States.

Comparison of U. S. D. A. Crop Reporter Data with C. W. A. Farm Real Estate Transfer Data in Tennessee

Before using C. W. A. data on farm real estate transfers for studies within the state, it is desirable to compare these data with the crop reporter estimates, of the United States Department of Agriculture, for the state as a whole. Since it is not possible to definitely determine the completeness of the C. W. A. data, either by years or by counties, it is necessary to study areas within the state on the basis of relatives, the percentage that each type of transfer is of the total number of transfers.

The data appear to approach completeness for the period 1929-1933; that is, the data indicates that the workers in most of the

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(12) Stauber, op. cit., p. 32.

counties have obtained records of a very large percentage of the transfers recorded during that period. The years 1929, 1930, and 1931 appear to be more complete than the other years. A comparison of the total number of transfers per 1,000 of all farms in Tennessee as reported to the U. S. D. A. with the total number of transfers obtained from county deed records, by C. W. A. workers, is shown in Table II.

Table II.

NUMBER OF FARMS CHANGING OWNERSHIP PER 1,000 OF ALL FARMS IN TENNESSEE, AS REPORTED FROM DIFFERENT SOURCES, 1929-1933

Year	U. S. D. A. Crop Reporters	County Deed Records
1929	45.6	59.3
1930	46.2	53.6
1931	47.3	57.6
1932	73.6	55.7
1933	91.8	47.3

Source: U. S. D. A. Data from: Stauber, B. R., The Farm Real Estate Situation, 1933-34, p. 30.

These data indicate that the tabulations for the years 1929, 1930, and 1931 are approximately complete, since more transfers were obtained from deed records than were reported to the U. S. D. A. during those years. In making the preceding statement, it has been assumed that the U. S. D. A. estimates are fairly representative of the true situation. In 1932 and 1933 the U. S. D. A. estimates indicated much larger volumes of transfers than was shown by the data taken from deed record books. While the data based on deed records are probably not complete for 1932 and 1933, they appear

to be only slightly less complete than the data for the three preceding years. Thus, it seems that the U. S. D. A. estimates are entirely too high for the years 1932 and 1933, largely because of the increased numbers of tax sales and foreclosures reported in those years. There seems to have been a tendency throughout the period 1926-1933 for the crop reporters to overestimate the frequency of foreclosure sales, and possibly tax sales also. During the period 1926-1933, 10.42 per cent of the transfer records taken from deed books were records of foreclosure sales, while for the same period the crop reporter data indicated that 26.84 per cent of transfers were foreclosures. Records of tax sales are not sufficiently complete to warrant comparison.

The U. S. D. A. estimates of the number of farms changing ownership by various methods per 1,000 of all farms in Tennessee are shown graphically in Fig. 4. While these data may tend to be exaggerated somewhat in the case of foreclosures and tax sales and underestimated in the case of voluntary sales, they still serve to show the general trend of transfers from year to year.

Some Comparisons of Land Transfers in Tennessee, By Soil Areas

The percentage that voluntary sales, foreclosures, and gift transfers are of all transfers, both as to number of parcels and acres involved, in Tennessee, by soil areas, is shown in Table III. While these data offer no indication of the volume of transfers in the respective areas, they do indicate the relative importance of each type of transfer as compared to the other types. The percentages

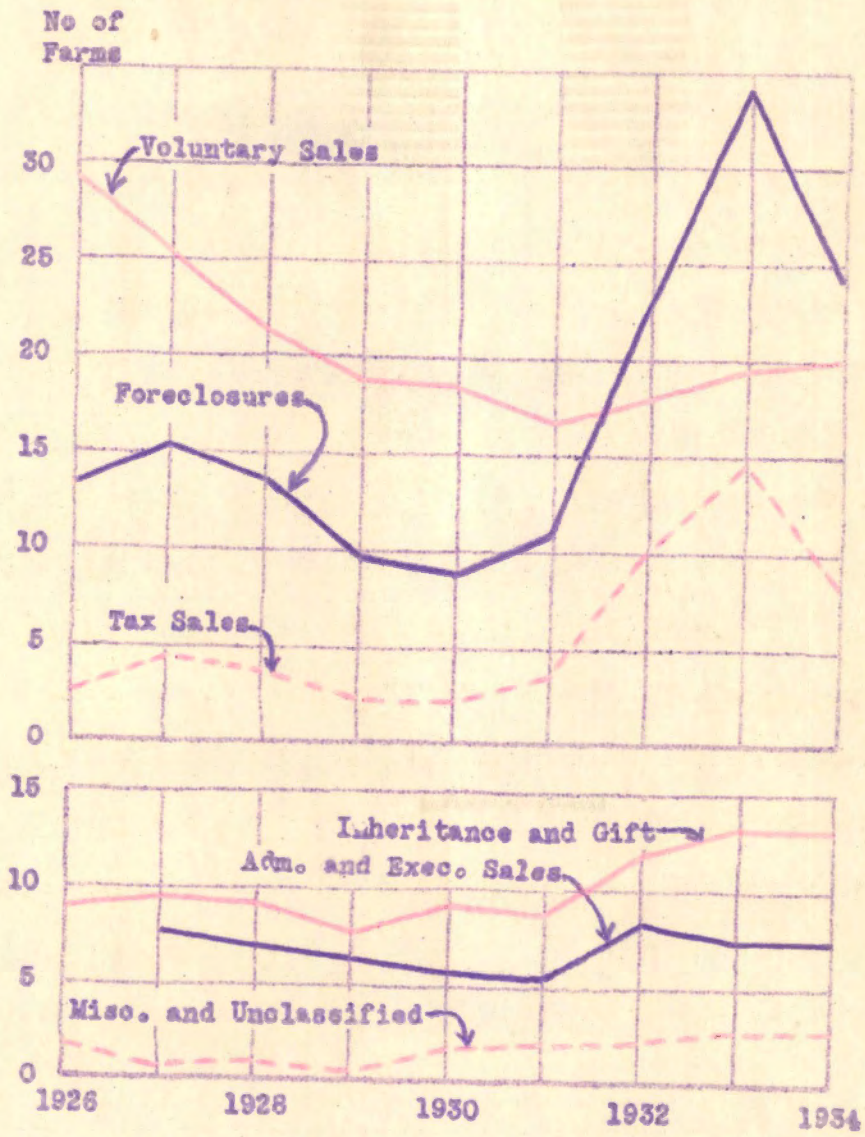


Fig. 4. Number of Farms Changing Ownership by Various Methods Per 1,000 of All Farms in Tennessee, 1926-1934

Based on Table I.

Table III.

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS, BOTH AS TO NUMBER OF PARCESL AND ACRES INVOLVED, IN TENNESSEE, BY SOIL AREAS, 1924-1933

Area	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
Tennessee	86.11	82.09	9.88	14.19	3.53	3.20
Unaka Range	92.19	96.26	3.17	1.25	4.62	2.73
East Tenn. Valley	86.54	82.57	9.12	13.92	3.53	3.15
Cumberland Plateau	93.66	92.24	4.87	6.80	.90	.51
Eastern Highland Rim	89.60	85.56	8.73	12.92	3.82	3.27
Central Basin	83.12	76.74	13.45	18.37	3.28	3.64
Western Highland Rim	83.67	78.08	13.22	18.94	2.16	2.56
Southwestern Highland Rim	86.91	83.08	7.53	11.40	3.85	4.08
West Tennessee Slope	82.33	76.23	14.66	20.41	2.96	3.29
Mississippi Bottoms	85.27	87.68	12.79	11.43	1.16	.39

Table IV.

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS, BOTH AS TO NUMBER OF PARCELS AND ACRES INVOLVED, IN TENNESSEE, 1924-1933

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	86.11	78.10	9.88	13.49	3.53	3.20
1924	91.06	90.05	4.43	5.97	4.33	3.72
1925	90.21	89.55	5.67	6.79	3.83	3.33
1926	90.60	88.35	5.82	8.12	3.33	3.22
1927	89.03	86.08	7.39	10.44	3.36	3.27
1928	88.91	85.70	7.43	10.82	3.35	3.05
1929	88.85	84.61	8.62	12.55	2.60	2.37
1930	87.43	84.35	8.85	12.19	3.25	2.97
1931	83.66	77.97	11.47	17.35	3.80	3.86
1932	79.35	61.24	16.56	21.14	3.46	3.82
1933	80.20	61.30	14.60	15.22	4.75	2.92

do not always equal 100 when added, since some assignments and other transfers have been included in the totals. Tax sales have been eliminated because the available data proved to be entirely unsatisfactory from the standpoint of completeness and uniformity.

During the period 1924-33, 86.11 per cent of the transfers of farm real estate in Tennessee have been voluntary sales, 9.88 per cent have been foreclosure sales, and 3.53 per cent have been gift transfers. These percentages represent the number of parcels transferred by each method. Acreage transferred does not assume the same proportion as the number of parcels. For the above period voluntary sales represented 82.09 per cent of the acreage, foreclosures accounted for 14.19 per cent, and gift transfers 3.20.

Voluntary Sales. For the ten-year period 1924-33, voluntary sales accounted for a higher percentage of total transfers in the Cumberland Plateau area than in any of the other soil areas studied. In this area 93.66 per cent of the total transfers were voluntary sales. The Unaka Range area was a close second with 92.19 per cent. The lowest percentage of voluntary sales occurred in the West Tennessee Slope area, where 82.33 per cent of the total transfers were voluntary sales. The acreage transferred by voluntary sales was 96.26 per cent in the Unaka Range area as compared with 92.24 per cent in the Cumberland Plateau area. In the West Tennessee slope area, 76.23 per cent of the total acreage transferred was conveyed by voluntary sales. In general, the highest percentages of voluntary sales have occurred in the poorer and less developed

agricultural regions of the state, and the lowest percentages have occurred in the best agricultural regions.

The trend of percentages that voluntary sales are of all transfers of farm real estate in Tennessee, by soil areas, from 1924 to 1933 is shown in Fig. 5. Data for the Unaka Range and Mississippi Bottoms areas were not complete enough to warrant their use in showing trends. From 1924 to 1933 the trend of percentages that voluntary sales are of all transfers has been downward in all of the areas studied. In the Cumberland Plateau area, however, the trend has been only slightly downward for the period as a whole. There has been a very noticeable increase in percentage of voluntary sales in that area since 1931. The downward trend has not been very rapid in the Eastern Highland Rim area. Very noticeable declines have occurred in the West Tennessee Slope, Southwestern and Western Highland Rim, and Central Basin areas. The lowest percentage of the entire period was recorded in the Western Highland Rim area in 1932. In that year 69.40 per cent of all transfers of farm real estate in the Western Highland Rim area were voluntary sales. The percentages in the Southwestern Highland Rim area for the first years of the period studied are based on small samples; therefore, it is not considered advisable to draw any conclusions regarding the high percentages in this area. It is suspected that the percentages in the Southwestern Highland Rim area would have conformed rather closely to the percentages in the Western Highland Rim and West Tennessee slope areas if more adequate samples could have been obtained.

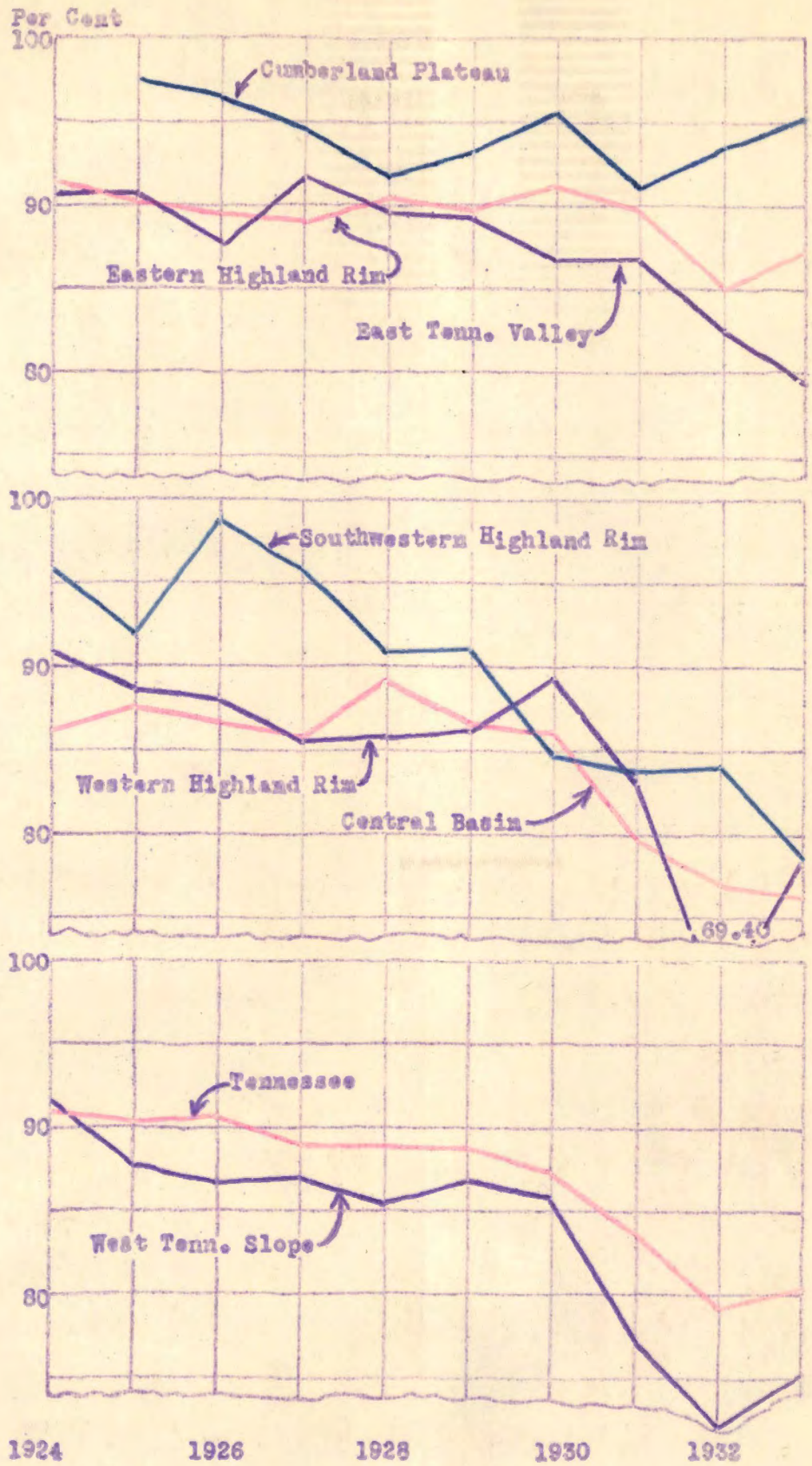


Fig. 5. Percentage That Voluntary Sales Are of All Transfers of Farm Real Estate in Tennessee, by Soil Areas, 1924-1933

Based on Table V.

Foreclosures. The ranking of the soil areas on the basis of the percentages that foreclosures are of all transfers of farm real estate is not exactly opposite to the ranking on the basis of voluntary sales, since gift transfers vary considerably in the different areas. Foreclosure sales constituted 3.17 per cent of the total number of transfers in the Unaka Range area for the period 1924-33. This was the lowest percentage recorded in any of the areas studied. A slightly higher percentage, 4.87, occurred in the Cumberland Plateau area. The highest percentage of foreclosures were recorded in the West Tennessee Slope area, where 14.66 per cent of all transfers of farm real estate were foreclosure sales. Comparatively high percentages of foreclosures were recorded in the Central Basin and Western Highland Rim areas, where 13.45 per cent and 13.22 per cent, respectively, of all transfers were foreclosure sales.

Only 1.25 per cent of the acreage transferred in the Unaka Range area from 1924 to 1933 was conveyed by foreclosure sale, whereas 20.41 per cent of the acreage transferred in the West Tennessee Slope area was conveyed by foreclosure sale. In two areas, the Unaka Range and the West Tennessee Slope, the percentage of foreclosure sales was higher on the basis of number of parcels than on the basis of acreage transferred. A comparison of voluntary sales and foreclosures, as to average size of parcel and value per acre, is presented in a later chapter.

The trend of foreclosure sales in Tennessee, on the basis of percentage that foreclosure sales are of all transfers of farm real

Table V.

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS OF FARM REAL ESTATE, BOTH AS TO NUMBER OF PARCELS AND ACRES INVOLVED, IN TENNESSEE, BY SOIL AREAS, 1924-1933

A. East Tennessee Valley

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	86.54	82.57	9.12	13.92	3.53	3.15
1924	90.86	90.02	6.85	7.97	2.03	1.55
1925	90.61	87.13	6.76	10.93	2.30	1.70
1926	87.88	87.86	5.56	7.49	3.09	3.69
1927	91.66	87.24	6.40	10.89	2.13	1.40
1928	89.68	85.39	6.54	10.95	3.67	3.79
1929	89.26	84.59	8.51	12.33	2.07	2.81
1930	86.85	85.78	9.33	11.42	3.08	2.54
1931	86.81	82.86	7.32	13.90	3.66	3.21
1932	82.48	74.64	11.92	20.36	4.63	4.33
1933	79.49	76.60	14.81	19.20	5.68	3.79

B. Cumberland Plateau

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	93.66	92.24	4.87	6.80	.90	.51
1924	86.36	83.22	- -	- -	12.12	15.09
1925	97.57	97.91	2.42	2.08	- -	- -
1926	96.55	96.77	2.75	2.78	- -	- -
1927	94.46	96.66	4.68	3.01	.42	.06
1928	91.81	91.19	6.04	6.27	.71	.41
1929	93.10	92.75	5.74	6.73	1.14	.51
1930	95.55	88.52	4.44	11.47	- -	- -
1931	91.07	91.49	6.57	6.28	1.64	1.45
1932	93.45	90.96	5.35	8.80	.59	.22
1933	95.14	91.55	4.10	8.08	- -	- -

Table V. (Continued)

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS OF FARM REAL ESTATE, BOTH AS TO NUMBER OF PARCELS AND ACRES INVOLVED, IN TENNESSEE, BY SOIL AREAS, 1924-1933

C. Eastern Highland Rim

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	89.60	85.56	8.73	12.92	3.82	3.27
1924	91.59	90.33	6.90	8.41	4.89	3.51
1925	90.21	87.79	7.75	10.47	5.33	4.41
1926	89.56	84.39	8.45	13.61	3.83	4.21
1927	89.04	80.46	9.30	18.79	3.29	1.92
1928	90.62	86.02	8.51	13.54	2.88	1.69
1929	89.93	88.64	9.40	9.87	3.57	3.44
1930	91.24	88.63	7.00	10.49	3.98	3.35
1931	89.93	86.31	8.51	12.38	3.71	3.63
1932	85.11	77.06	13.24	21.18	2.72	2.38
1933	87.14	84.37	9.40	11.65	3.45	3.97

D. Central Basin

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	83.12	76.74	13.45	18.37	3.28	3.64
1924	86.25	71.87	6.25	12.55	7.50	15.57
1925	87.50	83.15	6.81	12.65	2.27	2.69
1926	86.62	80.21	5.09	8.77	8.28	11.00
1927	85.94	79.84	9.54	8.99	3.97	10.83
1928	89.04	87.58	8.02	10.02	3.10	2.69
1929	86.59	84.43	10.27	12.01	2.75	2.92
1930	86.19	82.16	10.62	15.40	3.02	2.43
1931	79.74	72.40	16.48	24.43	3.76	3.16
1932	77.09	68.51	20.99	30.12	2.26	2.48
1933	76.43	72.33	19.26	23.80	3.79	3.85

Table V. (Continued)

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS OF FARM REAL ESTATE, BOTH AS TO NUMBER OF PARCELS AND ACRES INVOLVED, IN TENNESSEE, BY SOIL AREAS, 1924-1933

E. Western Highland Rim

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	83.67	78.08	13.22	18.94	2.16	2.56
1924	90.88	88.91	7.43	8.16	1.19	2.37
1925	88.52	84.62	8.29	9.23	2.35	5.33
1926	88.03	85.89	8.48	10.85	2.72	5.22
1927	85.67	86.79	10.28	10.97	3.12	2.64
1928	85.79	76.22	14.09	22.48	1.76	2.18
1929	86.16	79.73	11.24	17.80	1.61	1.55
1930	89.34	87.50	9.27	10.74	1.37	1.74
1931	83.05	77.83	12.04	18.11	2.49	2.93
1932	69.40	57.00	25.29	39.33	2.39	1.42
1933	78.35	74.31	18.03	22.82	2.70	2.21

F. Southwestern Highland Rim

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	86.91	83.08	7.53	11.40	3.85	4.08
1924	95.83	98.88	- -	- -	4.16	1.11
1925	92.00	72.15	2.00	1.90	6.00	25.93
1926	98.66	98.81	- -	- -	- -	- -
1927	95.90	96.15	.58	.14	2.33	3.11
1928	90.95	87.41	2.61	3.07	3.80	5.56
1929	91.01	87.83	2.99	5.44	3.68	2.88
1930	84.80	86.19	4.97	5.97	5.52	4.25
1931	83.73	79.55	11.27	15.94	4.77	4.34
1932	84.15	76.44	13.94	20.72	2.16	2.83
1933	78.72	73.97	15.19	20.92	4.41	3.65

Table V. (Concluded)

PERCENTAGE THAT SPECIFIED KINDS OF TRANSFERS ARE OF ALL TRANSFERS OF FARM REAL ESTATE, BOTH AS TO NUMBER OF PARCELS AND ACRES INVOLVED, IN TENNESSEE, BY SOIL AREAS, 1924-1933

G. West Tennessee Slope

Year	Voluntary Sales		Foreclosures		Gift Transfers	
	Number	Acres	Number	Acres	Number	Acres
1924-33	82.33	76.23	14.66	20.41	2.96	3.29
1924	91.59	85.19	4.20	10.87	4.20	3.92
1925	87.75	84.34	9.69	11.36	2.29	3.17
1926	86.78	87.26	11.78	12.02	1.42	.71
1927	87.01	77.76	10.74	18.75	2.24	3.47
1928	85.42	85.74	12.11	12.09	2.37	2.16
1929	86.95	77.32	10.91	20.78	2.12	1.88
1930	85.78	80.08	11.39	15.00	2.91	4.91
1931	77.20	68.54	19.53	26.58	3.27	4.87
1932	72.02	67.03	24.26	30.42	3.71	2.56
1933	75.04	68.36	19.92	26.44	4.83	5.08

estate, was gradually upward from 1924 to 1930, and sharply upward from 1930 to 1932 (Fig. 6). From 1932 to 1933 there was a decline in the percentage of foreclosures in the state, as a whole. The trend continued upward, however, in the East Tennessee Valley and the Southwestern Highland Rim areas.

Data are not available to show the percentage of all farms which are mortgaged. The 1930 census shows the number of farms operated by full owners which were mortgaged. If it may be assumed that the mortgage data for full-owner-operated farms are fairly representative of all farms, then these data may be used to show the relative severity of the mortgage situation in different areas. The percentage of full-owner-operated farms which were mortgaged is shown for all

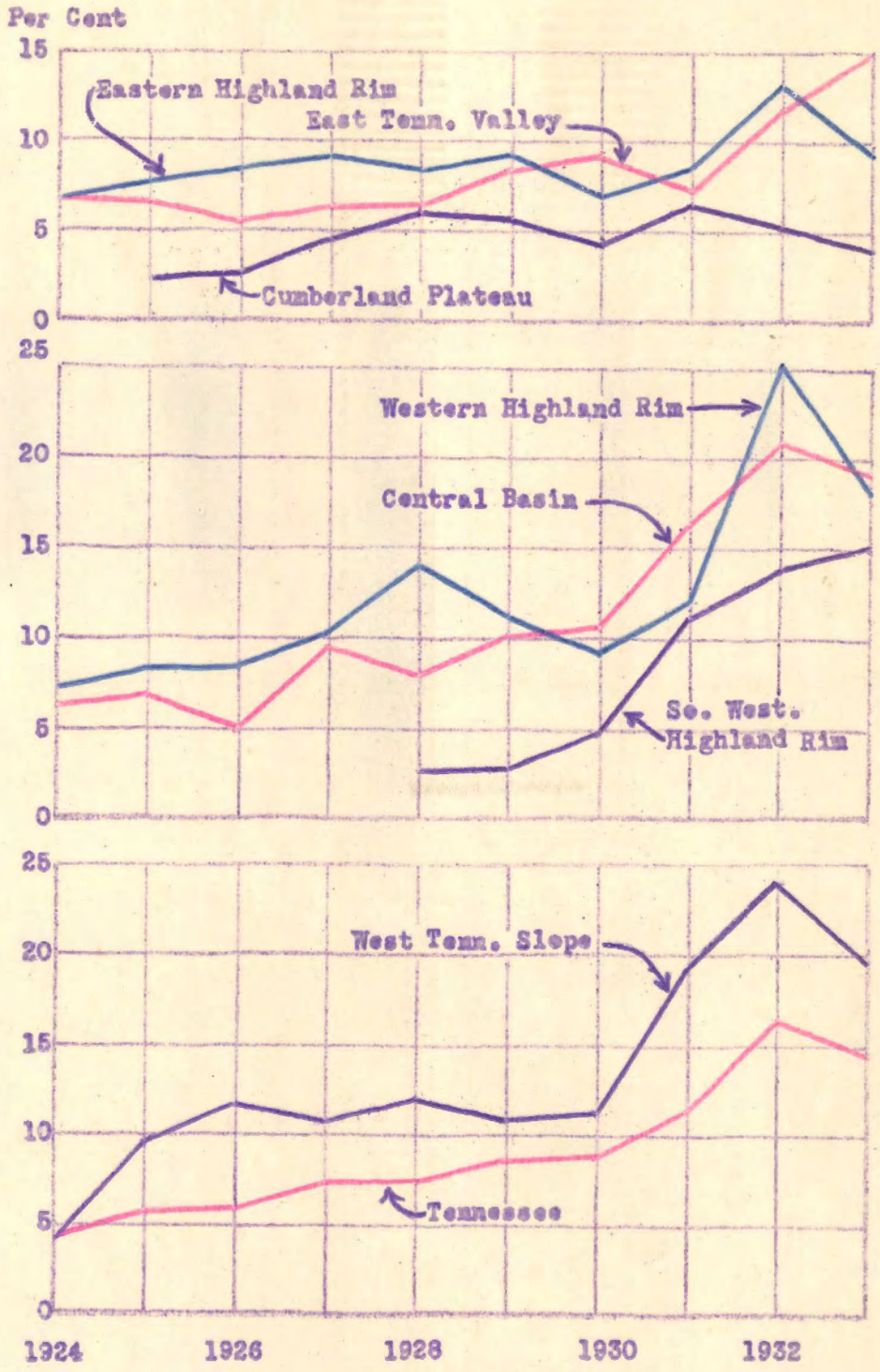


Fig. 6. Percentage That Foreclosure Sales are of All Transfers of Farm Real Estate in Tennessee, by Soil Areas, 1924-1933

Based on Table V.

Tennessee counties, in 1930, in Fig. 7 and Table VI. It is readily apparent that the percentage of farms mortgaged is highest in the West Tennessee Slope and Central Basin areas, and also in certain sections of the East Tennessee Valley area. These areas represent the best agricultural sections of the state. The percentage of farms mortgaged is lowest in the Cumberland Plateau area, in some sections of the Highland Rim area, and in some counties in the mountainous area of the extreme eastern part of the state. The percentage of full-owner-operated farms which are mortgaged ranges from 6.82 per cent in Scott County to 55.59 per cent in Lauderdale County. The state average is 27.29 per cent.

The ratio of farm mortgage debt to value of land and buildings on farms operated by full owners, in Tennessee counties, 1930, is shown in Fig. 8 and Table VII. In general, the ratio of debt to value is highest in those areas in which the percentage of farms mortgaged is highest, and the ratio is lowest in those areas in which the percentage of farms mortgaged is lowest. The combination of high percentages of farms mortgaged and high ratios of debt to value has resulted in rather serious mortgage-debt situations in the better agricultural areas of the state. This does not mean that the situation has not been of a serious nature in all sections of the state. It means that the situation has been considerably more serious in some sections than in others.

Generally speaking, the percentage that foreclosure sales are of all transfers of farm real estate has been highest in those areas where the highest percentage of farms were mortgaged and the ratio



Fig. 7. Percentage of Farms Operated by Full Owners (Making Mortgage Reports) Which Were Mortgaged, in Tennessee Counties, 1930

Based on Table VI.

Table VI.

PERCENTAGE OF FARMS OPERATED BY FULL OWNERS (MAKING MORTGAGE REPORTS) MORTGAGED, IN TENNESSEE COUNTIES, 1930

Rank	County	Per Cent of Farms Mortgaged	Rank	County	Per Cent of Farms Mortgaged
1	Scott	6.82	43	Rhea	26.12
2	Van Buren	7.36	44	Blount	26.27
3	Morgan	8.81	45	Dickson	26.54
4	Campbell	9.02	46	Greene	26.86
5	Overton	10.02	47	Perry	27.41
6	Fentress	10.26	48	Wilson	27.66
7	Cumberland	10.73	49	Cannon	27.78
8	Carter	10.96	50	Coffee	28.54
9	Grundy	11.01	51	Franklin	28.92
10	Pickett	13.51	52	Loudon	29.27
11	Polk	13.94	53	Houston	29.48
12	Hawkins	14.06	54	Maury	29.60
13	White	14.25	55	Smith	29.79
14	Unicoi	14.42	56	Carroll	29.88
15	Johnson	14.64	57	Sumner	30.02
16	Anderson	14.99	58	Davidson	30.56
17	Jackson	15.23	59	Humphreys	30.62
18	Sequatchie	15.61	60	Marshall	30.82
19	DeKalb	15.72	61	Bedford	30.83
20	Hancock	16.03	62	Henderson	31.93
21	Clay	16.77	63	Williamson	32.01
22	Grainger	17.99	64	Rutherford	32.11
23	Union	18.20	65	Henry	32.44
24	Claiborne	18.22	66	Hamblen	32.47
25	Marion	18.49	67	Benton	32.64
26	Hickman	18.70	68	Knox	32.74
27	Roane	19.33	69	Cheatham	33.27
28	Bledsoe	19.53	70	Lewis	33.33
29	Washington	19.74	71	McNairy	33.51
30	Cocke	19.81	72	Bradley	33.62
31	Putnam	20.23	73	Giles	33.71
32	Sullivan	20.32	74	Shelby	33.91
33	Warren	20.54	75	Decatur	33.95
34	Sevier	21.02	76	Trousdale	34.94
35	Moore	21.60	77	Hardeman	35.11
36	McMinn	21.69	78	Jefferson	35.18
37	Macon	22.71	79	Lincoln	35.75
38	Hamilton	23.65	80	Gibson	36.69
39	Wayne	23.83	81	Stewart	37.19
40	Meigs	24.49	82	Fayette	37.35
41	Monroe	25.44	83	Montgomery	38.84
42	Hardin	25.86	84	Weakley	39.78

(Continued)

Table VI. (Continued)

PERCENTAGE OF FARMS OPERATED BY FULL OWNERS (MAKING MORTGAGE REPORTS) MORTGAGED, IN TENNESSEE COUNTIES, 1930

Rank	County	Per Cent of Farms Mortgaged	Rank	County	Per Cent of Farms Mortgaged
85	Lawrence	41.48	91	Robertson	47.29
86	Lake	41.50	92	Obion	49.15
87	Madison	41.68	93	Dyer	51.10
88	Chester	42.46	94	Haywood	53.49
89	Crockett	43.79	95	Lauderdale	55.59
90	Tipton	44.53			
				State Average	27.29

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Second Series, Table XI.

of mortgage debt to value of farm real estate was highest. The percentage of foreclosure sales has been lowest in those areas where the per cent of farms mortgaged and the ratio of debt to value of farm real estate were lowest. These statements do not hold true for individual counties in all cases, but when similar counties are considered as a group the statements are justified. It is commonly recognized that certain agricultural data are not highly accurate on a county basis, but are very accurate when groups of counties are considered. Inaccuracies that may exist in individual counties are largely eliminated when several counties are considered as a group.

The available data indicate that no special factors have been in operation in recent years in those areas where foreclosures were most frequent that have not been in operation in the other areas. The severe reduction of farm incomes, the general business depression, continued high taxes and interest rates, and other factors naturally caused greatest distress in those areas where the largest percentage of farms were mortgaged and the ratio of debt to value of property was highest.

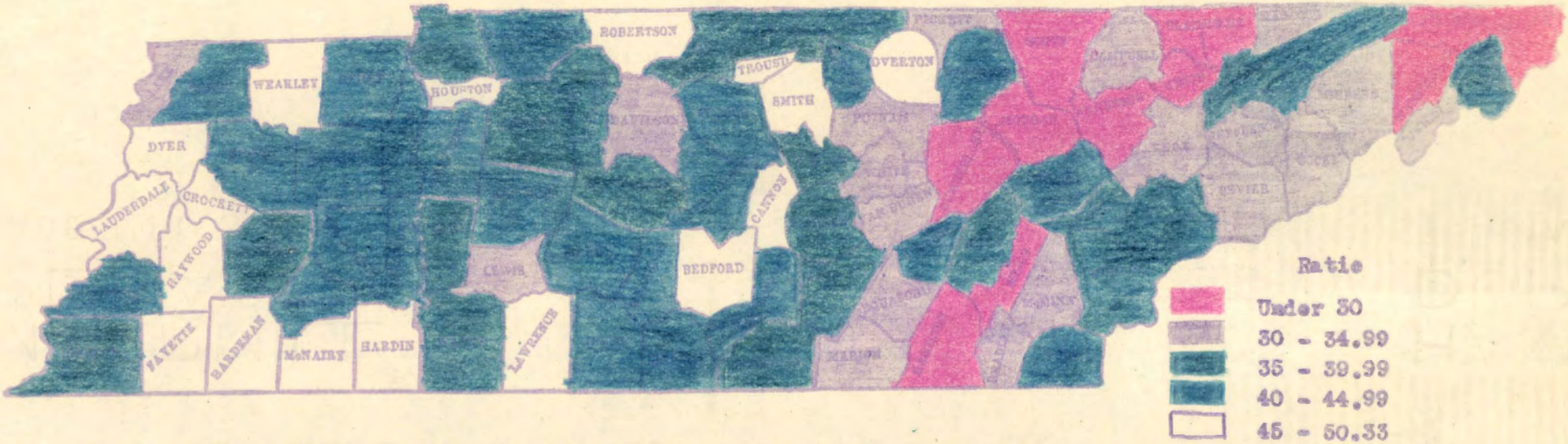


Fig. 8. Ratio of Farm Mortgage Debt to Value of Land and Buildings, Farms Operated by Full Owners, in Tennessee Counties, 1930

Based on Table VII.

Table VII.

RATIO OF FARM MORTGAGE DEBT TO VALUE OF LAND AND BUILDINGS, FARMS OPERATED BY FULL OWNERS, IN TENNESSEE COUNTIES, 1930

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Johnson	24.20	32	Blount	35.50	64	Rutherford	42.61
2	Sullivan	24.83	33	Rhea	35.53	65	Tipton	42.74
3	Cumberland	25.18	34	Clay	35.58	66	Moore	42.89
4	Morgan	25.42	35	Cheatham	35.62	67	Chester	43.10
5	Scott	26.08	36	Hawkins	35.74	68	Pentress	43.17
6	Union	26.25	37	Carter	35.93	69	Bledsoe	43.18
7	Hamilton	26.32	38	Grundy	35.97	70	Wilson	43.42
8	Claiborne	28.50	39	Wayne	36.17	71	Giles	43.65
9	Meigs	28.51	40	Perry	36.30	72	Marshall	43.65
10	Washington	29.26	41	Sumner	36.54	73	Hickman	43.71
11	Anderson	29.27	42	Shelby	36.57	74	Decatur	43.81
12	Knox	30.08	43	DeKalb	36.80	75	Montgomery	44.04
13	Campbell	30.46	44	Macon	37.18	76	Obion	44.27
14	Hancock	30.61	45	Hamblen	37.45	77	Henry	44.30
15	Van Buren	30.93	46	Grainger	37.62	78	Roane	44.69
16	White	31.07	47	Madison	37.63	79	Overton	45.10
17	Cocke	31.43	48	Williamson	37.69	80	Houston	45.21
18	Lewis	31.56	49	Franklin	38.30	81	Crockett	45.33
19	Unicoi	31.72	50	Warren	38.49	82	Cannon	45.69
20	Davidson	31.97	51	Dickson	38.61	83	Smith	45.82
21	Bradley	32.02	52	Monroe	38.68	84	Weakley	46.27
22	Sequatchie	32.99	53	Stewart	39.73	85	Bedford	46.43
23	Putnam	33.03	54	Jackson	40.01	86	Hardin	47.00
24	McMinn	33.23	55	Carroll	40.20	87	Lawrence	47.04
25	Lake	33.88	56	Coffee	40.26	88	Dyer	47.10
26	Pickett	33.90	57	Benton	40.34	89	Fayette	47.39
27	Marion	34.11	58	Henderson	40.46	90	Haywood	47.50
28	Jefferson	34.45	59	Humphreys	40.53	91	Trousdale	48.71
29	Greene	34.47	60	Gibson	40.59	92	Lauderdale	49.01
30	Sevier	34.92	61	Polk	40.72	93	Robertson	49.41
31	Loudon	35.40	62	Lincoln	40.82	94	McNairy	49.52
			63	Maury	41.11	95	Hardeman	50.33
							State Average	38.40

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Second Series, Table XI.

Chapter III.

FINANCIAL ARRANGEMENTS ACCOMPANYING FARM REAL ESTATE TRANSFERS

General Discussion of Agricultural Finance

Buying a farm is a momentous transaction in the life of the average farmer. Some one has said, "Getting a good producing farm is next in importance to getting a wife that is a good help-mate". The purchase of land represents the largest outlay of capital required for most farming operations. The farmer's first need is land; and a large portion of mortgage debts have been incurred for the purpose of buying farm lands or paying off existing debts. Most farmers cannot pay outright for a farm when they buy it. Nor is there any more reason why a farmer should pay the full price of a farm before becoming the owner of it, than a railroad company or a factory corporation should be held for the full price of their fixed capital before they begin business. If a group of men organize a railroad company or a factory corporation, they do not pay for the materials, construction, and organizing expenses out of their own savings. They usually pay a part out of the capital stock funds — just enough to make their real property an attractive security for a loan. Then the property is mortgaged and a bond issue floated for the additional capital. This outstanding debt is paid out of capital that has been accumulated after years of earnings, or a new bonded debt is issued to pay the old one. This is the usual and natural thing to do; for a business of this kind requires large outlays of capital, and at the slow rate of income many years are required before it can pay for itself. The farmer needs long-term credit just as does a railroad, factory, or

other business concern.

Agriculture, for the purpose of fixed capital, needs credit for a length of term and at a rate of interest that will enable the farmer to pay for the property purchased, out of net income over a period of years. If the farmer earns 5 per cent on his capital after all other expenses have been met and has to pay 6 per cent interest on the capital invested, he is not doing a paying business and he is eventually doomed to foreclosure. Farm credit facilities have been greatly improved in recent years through the various activities of the Federal Government in this field.

Frequently there is an opportunity to buy a farm with no payment down, or only a small payment. However, in such cases, one usually agrees to pay a materially larger sum than would be necessary if a substantial down payment were made. In general, unless the farm is a very unusual bargain, it seems advisable that one should not buy until a third to a half of the purchase price can be paid in a down payment and the personal property is clear of encumberance. It is usually unfortunate to buy a run-down place with a small down payment, as usually creditors will insist on taking all the income but a bare living. Because of lack of cash for building repairs, fencing, and necessary equipment, it is likely that the buyer will never get the place in good condition. In the case of unfavorable crop and price conditions, or sickness in the family, it may be impossible to go on with such a contract. It seems to be a human failing to over-value poor land.

A special analysis of farm real estate transfer data in five Tennessee counties has been made in order to determine the financial

arrangements accompanying transfers in those areas. The counties selected — Knox, McMinn, Morgan, Overton, and Putnam — are not representative of a very large portion of the agricultural area of the state. The results obtained may not be considered as applicable to very large areas beyond the boundaries of the counties studied. Only voluntary sales for the four-year period 1930-33 have been included in this portion of the study. This analysis includes 1,827 records of voluntary sales. Lack of time prohibited the study of a larger number of counties or a longer period of years.

Amount of Farm Real Estate Transferred Under Various Down-Payment Arrangements in Five Tennessee Counties

The records were divided into six groups, on the basis of percentage the down payment was of the total consideration (Fig. 9). It is rather surprising to note that 58.22 per cent of the parcels transferred by voluntary sale, in the five counties studied, were paid for cash-in-full at the time of purchase. Only 4.04 per cent of the sales were made with no down payment. In those cases where partial down payments were made, for each succeeding increase in the percentage the down payment was of the total consideration there was a decrease in the number of parcels sold. That is, a large percentage of the parcels were either paid for cash-in-full or only comparatively small down payments were made. Only 10.73 per cent of the total transfers were accompanied by down payments of 50 per cent to 99 per cent of the total consideration.

The percentage of the total number of parcels represented by each down payment arrangement is by no means the same as the percentage

of total consideration for the respective arrangements, as is shown in Fig. 9. The percentage of total consideration is considerably larger than the percentage of total parcels under the partial down-payment arrangements, especially in the smaller down-payment groups; but the percentage of total consideration is considerably smaller than the percentage of total parcels for the group in which the down payment represents 100 per cent of the total consideration. This suggests that transfers of highest valued parcels have been accompanied by down payments which were small in proportion to value, and lowest valued parcels by down payments which were large in proportion to value. Proof of this suggestion is found in Fig. 10.

The average value per parcel was $2,271 for the group in which the down payment ranged between 1 and 25 per cent, whereas the average value was only $819 for the group in which 100 per cent of the total consideration was paid down at the time of purchase (Fig. 10). It is interesting to note that the parcels in the no-down-payment group were not the highest valued parcels. The average value of the parcels in this group was only 15 per cent higher than the average value of parcels in all groups.

Financial Arrangements in Five Tennessee Counties

Financial arrangements may be studied under the headings of cash paid, first mortgage, second mortgage, notes (when no mortgage is given), and other arrangements. The percentage of the total consideration represented by each of the above mentioned arrangements, in the five counties studied, is shown in Fig. 11.

Cash Paid. The percentage of total consideration represented by

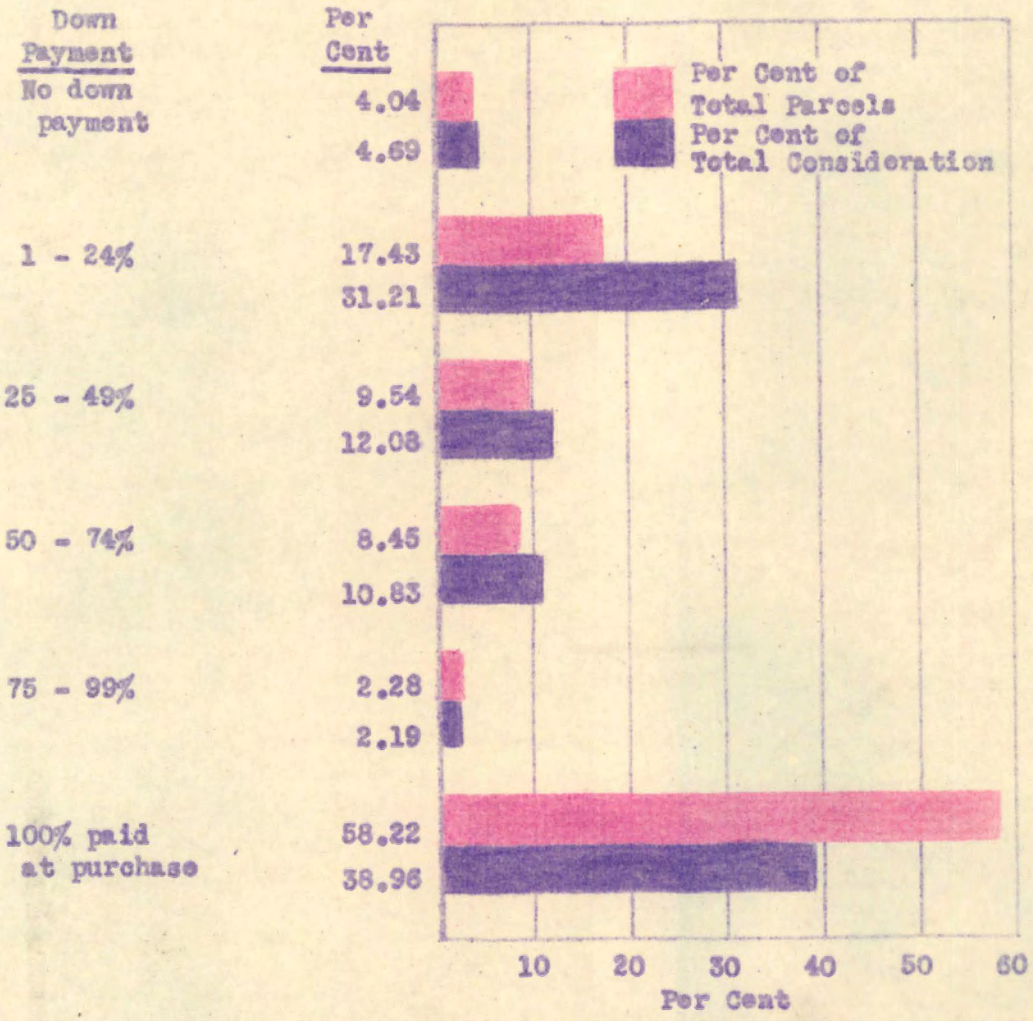


Fig. 9. Percentage of Farm Real Estate Sold Under Specified Down-Payment Arrangements in Five Tennessee Counties, 1930-33

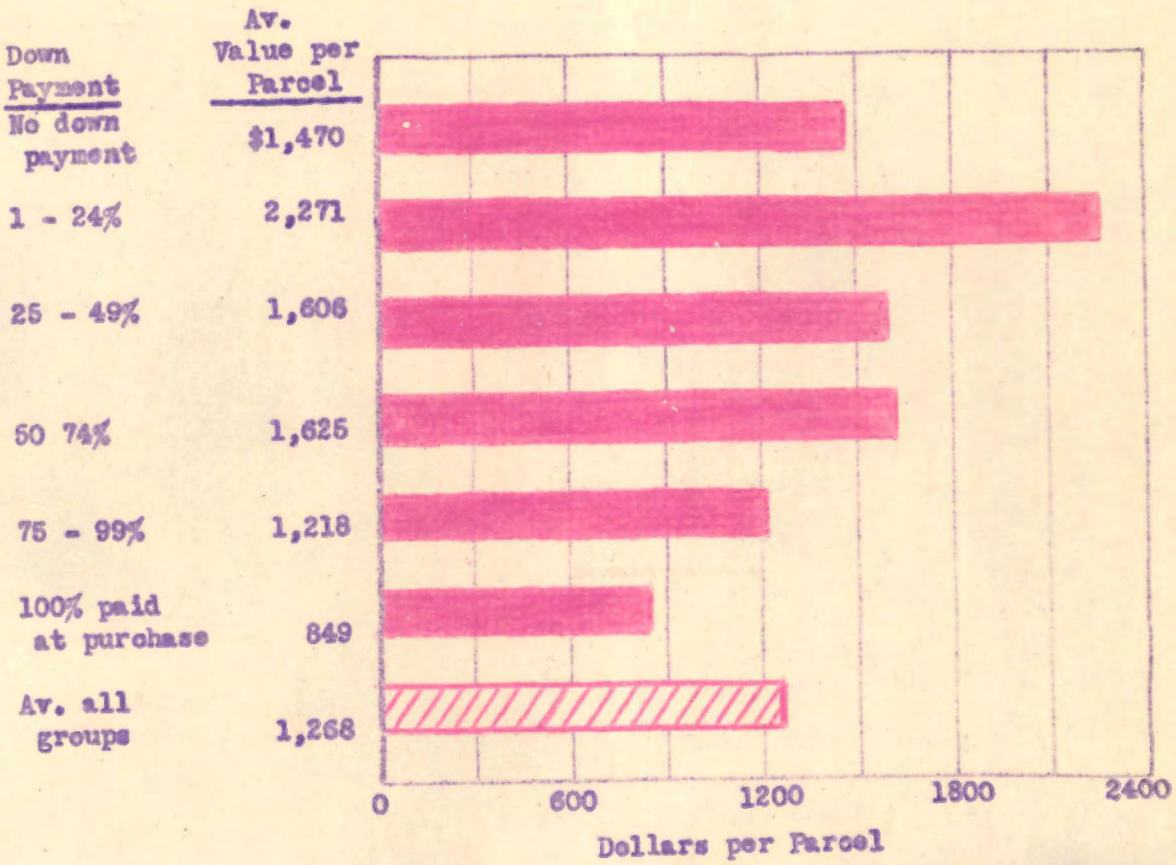


Fig. 10. Average Value per Parcel of Farm Real Estate Sold in Five Tennessee Counties, According to Amount of Down-Payment 1930-33

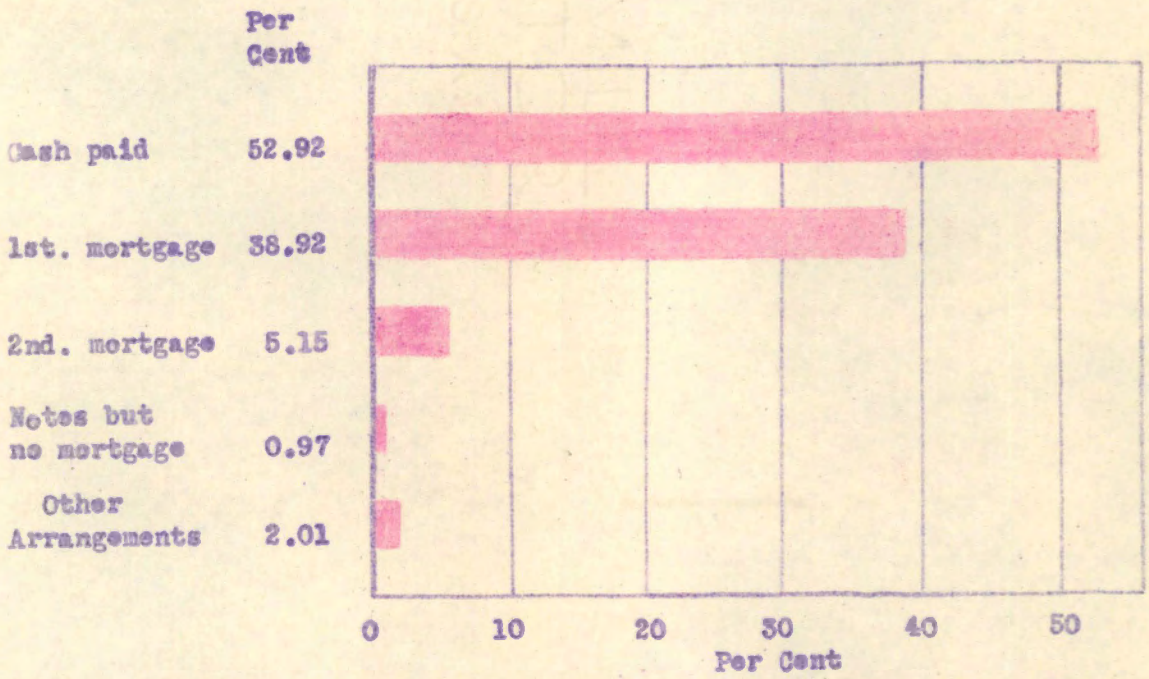


Fig. 11. Percentage of Total Consideration for Farm Real Estate Sold Represented by Specified Financial Arrangements in Five Tennessee Counties, 1930-33

cash paid at time of purchase is much larger than is usually suspected. In the five counties studied, 52.92 per cent of the total consideration for farm real estate transferred was paid in cash at time of purchase. This percentage ranges from 45.2 per cent in Knox County to 79.4 per cent in Overton County. It is generally thought that cash payments represent a much smaller percentage of total consideration than these data indicate. An investigation of financial arrangements for a number of years before 1930 probably would reveal information of a very different nature from that obtained for the period 1930-33. Also, a study of a larger number of counties covering all sections of the state probably would reveal conditions entirely different from those found in the five counties studied. The expansion of the study of financial arrangements in such a manner as to include a larger number of counties and a longer period of time offers a fertile field for further investigation.

The percentage that cash paid is of total consideration, by groups of parcels, is shown in Table VIII. It is noted that the actual per cent of cash paid does not tend to fall near the midpoint of the group interval. The distribution of individual parcels within the respective group intervals are by no means uniform; instead, a large percentage of the parcels tend to fall near the lower limits of the respective groups. Thus, in the group having a range between 1 per cent and 24 per cent, inclusively, one might expect the average to be very close to 12.5 per cent, the midpoint of the group. The actual average in this case is 7.02 per cent.

Table VIII.

PERCENTAGE THAT CASH PAID DOWN IS OF TOTAL CONSIDERATION FOR FARM REAL ESTATE SOLD IN FIVE TENNESSEE COUNTIES, 1930-1933

Down Payment	Total Consideration	Cash Paid	
		Amount	Per Cent of Total Consideration
No down payment	$ 114,656	$ 0	0
1-24 per cent	763,249	53,622	7.02
25-49 per cent	289,461	96,099	33.19
50-74 per cent	280,432	152,647	54.43
75-99 per cent	54,103	44,050	81.41
100 per cent	952,597	952,597	100.00
Total	$2,454,498	$1,299,015	52.92

First Mortgage. In the five counties included in this study, 38.92 per cent of the total consideration for farm real estate transferred by voluntary sales was financed by first mortgages. This percentage is somewhat lower than the usual estimate, just as the percentage of cash paid was somewhat higher than the usual estimate. It is generally assumed that a large percentage of farm land purchases are financed to a very considerable degree by credit; and first mortgages usually account for a high percentage of the credit. It is not intended to question the accuracy of the data analyzed, but rather to suggest, as in the case of cash paid, that the data do not cover an adequate period of time and are not applicable to a very large area.

The percentage that the amount represented by first mortgages is of total consideration, by groups, according to percentage of value paid down, is shown in Table I X. As would naturally be

Table IX.

PERCENTAGE THAT AMOUNT FINANCED BY FIRST MORTGAGE IS OF TOTAL CONSIDERATION FOR FARM REAL ESTATE SOLD IN FIVE TENNESSEE COUNTIES, 1930-33

Down Payment	First Mortgage	
	Amount	Per Cent of Total Consideration
No down payment	$ 88,287	77.00
1-24 per cent	557,497	73.04
25-49 per cent	108,721	62.43
50-74 per cent	119,001	42.43
75-99 per cent	9,908	18.31
100 per cent	0	0
Total	$955,414	38.92

expected, the percentage of total consideration financed by first mortgages was greatest in the case of the no-down-payment group and decreased with each increase in the percentage paid down.

Second Mortgage. This instrument has been used to finance 5.15 per cent of the total consideration for farm real estate transferred by voluntary sales, in the five counties studied. This percentage is comparatively small when quoted for the area as a whole; but in many individual cases the second mortgage assists greatly in obtaining the necessary credit for the purchase and operation of a farm.

The percentage that the amount financed by second mortgage is of the total consideration for farm real estate is shown in Table X. The percentage of total consideration financed by second mortgage is over 3 per cent less in the case of transfers accompanied by no down payment than in the case of transfers accompanied by down pay-

ments of from 1 per cent to 24 per cent. As will be shown later, the use of notes in financing purchases where there is no down payment more than offsets the reduction in the use of second mortgages as a method of financing such purchases. The use of second mortgages

Table X.

PERCENTAGE THAT AMOUNT FINANCED BY SECOND MORTGAGE IS OF TOTAL CONSIDERATION FOR FARM REAL ESTATE SOLD

Down Payment	Second Mortgage	
	Amount	Per Cent of Total Consideration
No down payment	$ 11,747	10.24
1-24 per cent	102,349	13.40
25-49 per cent	8,704	3.00
50-74 per cent	3,536	1.26
75-99 per cent	145	0.26
100 per cent	0	0
Total	$126,481	5.15

decreases very rapidly as the percentage paid down increases. The second mortgage is of very little importance as a method of financing purchases accompanied by down payments of 50 per cent or more.

Notes (but no mortgage). Notes have been of very minor importance in financing purchases other than those in the no-down-payment group. Notes were used to finance slightly less than 1 per cent of the total consideration in the five counties studied. However, in the case of those transfers accompanied by no down payment, notes were used to finance 7.57 per cent of the total consideration.

Table XI.

PERCENTAGE THAT AMOUNT FINANCED BY NOTES IS OF TOTAL CONSIDERATION FOR FARM REAL ESTATE SOLD IN FIVE TENNESSEE COUNTIES, 1930-33

Down Payment	Notes (but no mortgage)	
	Amount	Per Cent of Total Consideration
No down payment	$ 9,140	7.97
1-24 per cent	10,257	1.34
25-49 per cent	2,347	0.81
50-74 per cent	2,277	0.81
75-99 per cent	0	0
100 per cent	0	0
Total	$24,021	0.97

Other Arrangements. Arrangements other than cash, first mortgage, second mortgage, and notes were used to finance 2.01 per cent of the total consideration for farm real estate sold in the five counties included in this analysis (Table XII). Other arrangements were of most importance in the case of transfers accompanied

Table XII.

PERCENTAGE THAT AMOUNT FINANCED BY OTHER ARRANGEMENTS IS OF TOTAL CONSIDERATION FOR FARM REAL ESTATE SOLD IN FIVE TENNESSEE COUNTIES, 1930-33

Down Payment	Other Arrangements	
	Amount	Per Cent of Total Consideration
No down payment	$ 5,482	4.78
1-24 per cent	39,524	5.17
25-49 per cent	1,590	0.55
50-74 per cent	2,971	1.05
75-99 per cent	0	0
100 per cent	0	0
Total	$49,567	2.01

by no down payment or transfers accompanied by only small down payments. When the down payment was over 50 per cent of total consideration, other arrangements were of very little importance.

Financial Arrangements in Individual Counties

Knox County. This county is located near the center of the East Tennessee Valley, but it cannot be considered as representative of the agricultural counties of that area because of the influence of urban development around the city of Knoxville. For many purposes, it is assumed that data obtained for Knox County are applicable to the other large-city counties of the state. There is, however, no reason to believe that such an assumption might be true concerning financial arrangements in the transfer of farm real estate.

The percentage of farm real estate sold under different down-payment arrangements, in Knox County, is shown in Fig. 12. The percentage of all parcels sold for cash-in-full is lower for Knox County than for any other county studied, but even here a larger percentage of parcels were sold for cash than were sold under any other arrangement. It is interesting to note that less than 1 per cent of the parcels were transferred with no down payment. This percentage was considerably higher in each of the other four counties. The percentage of transfers accompanied by down payments of 1 per cent to 24 per cent was much higher for Knox County than for either of the other counties. These data indicate that the purchasers' equities are considerably lower in Knox County than in any other county studied.

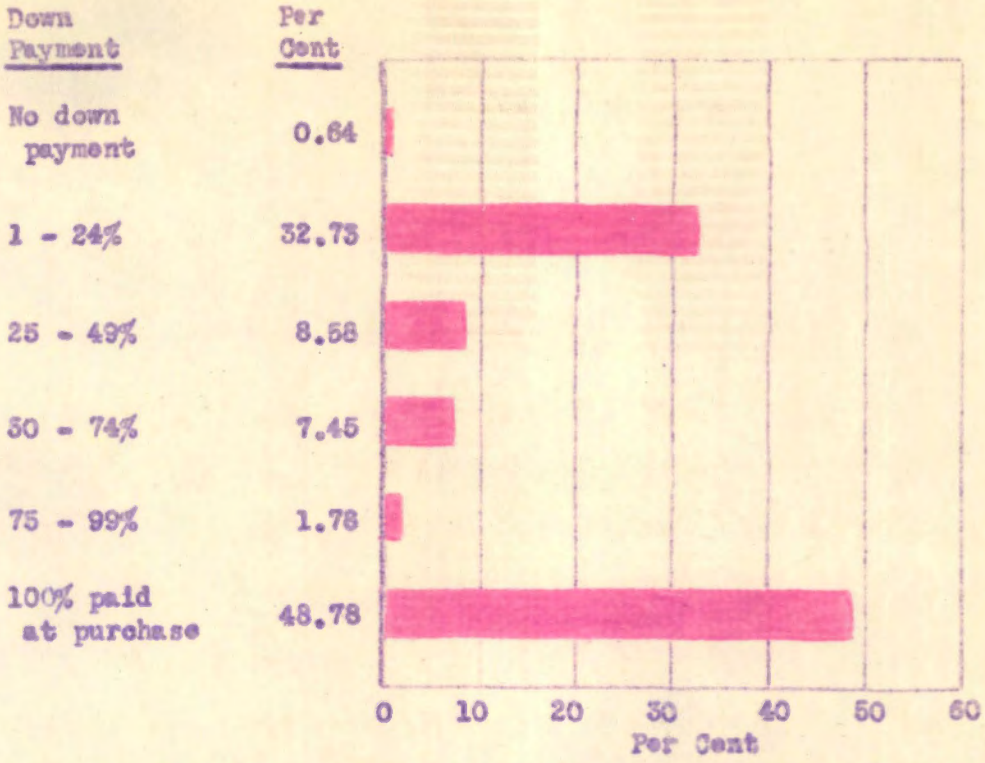


Fig. 12. Percentage of Parcels of Farm Real Estate Sold Under Specified Down-Payment Arrangements, Knox County, 1930-33

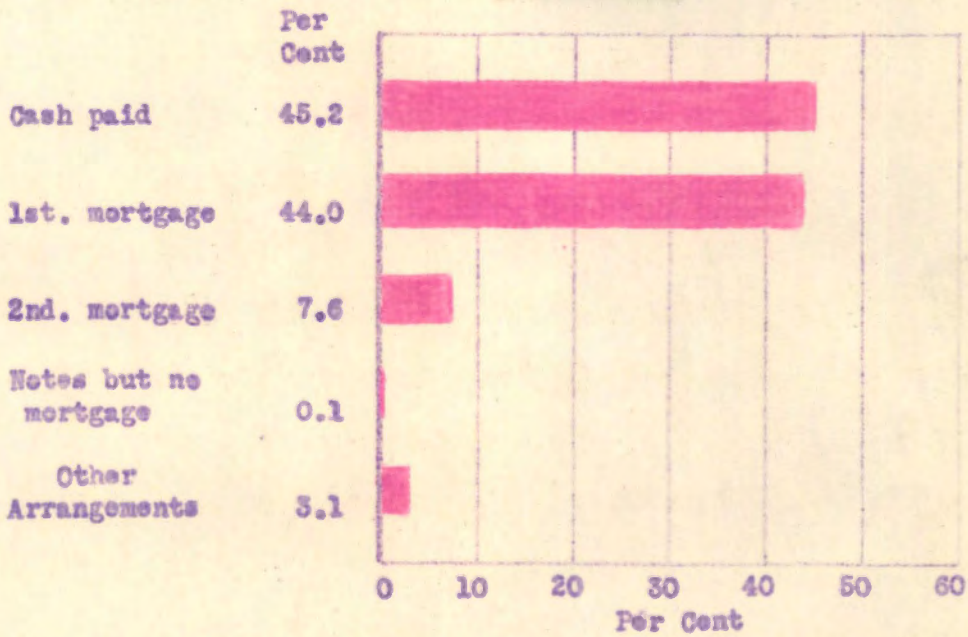


Fig. 13. Percentage of Total Consideration for Farm Real Estate Sold Represented by Specified Financial Arrangements, Knox County, 1930-33

The percentage of total consideration for farm real estate sold represented by cash paid, first mortgage, second mortgage, notes, and other arrangements, in Knox County, is shown in Fig. 13. There has been only a small difference between the percentages of total consideration financed by cash and first mortgage. This situation was found in neither of the other four counties, since a considerably larger percentage of total consideration was financed by cash than by all instruments of credit in those counties. Notes were of practically no importance as a method of financing in Knox County.

McMinn County. This county is located in the lower East Tennessee Valley area and may be considered as representative of that section of the Valley.

Although the percentage of parcels sold for cash-in-full is greater for McMinn County than for Knox County, there is a much more even distribution of parcels in the other down-payment groups in McMinn County (Fig. 14). A considerable number of parcels have been transferred under each of the down-payment arrangements.

Of the total consideration for farm real estate sold in McMinn County, 57.3 per cent was paid in cash, 39.3 per cent financed by first mortgage, and 3.4 per cent by second mortgage (Fig. 15). It seems rather odd that notes and other arrangements were not used. The data show that buyers in this county have a slightly higher equity in their property than do buyers in Knox County.

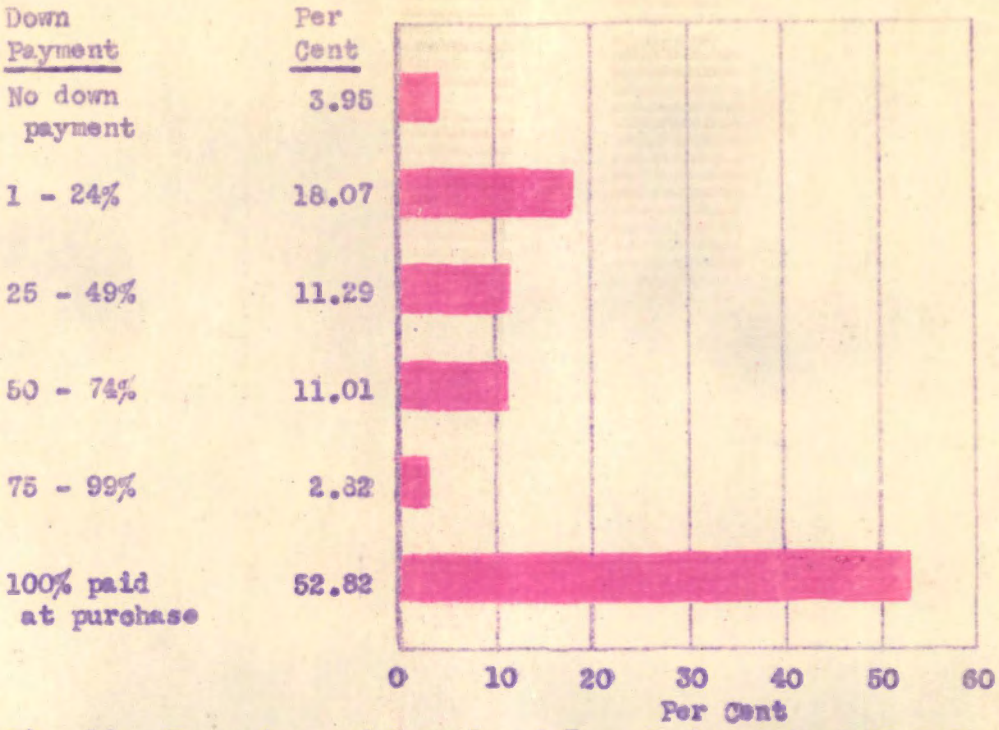


Fig. 14. Percentage of Parcels of Farm Real Estate Sold Under Specified Down-Payment Arrangements, McMinn County, 1930-33

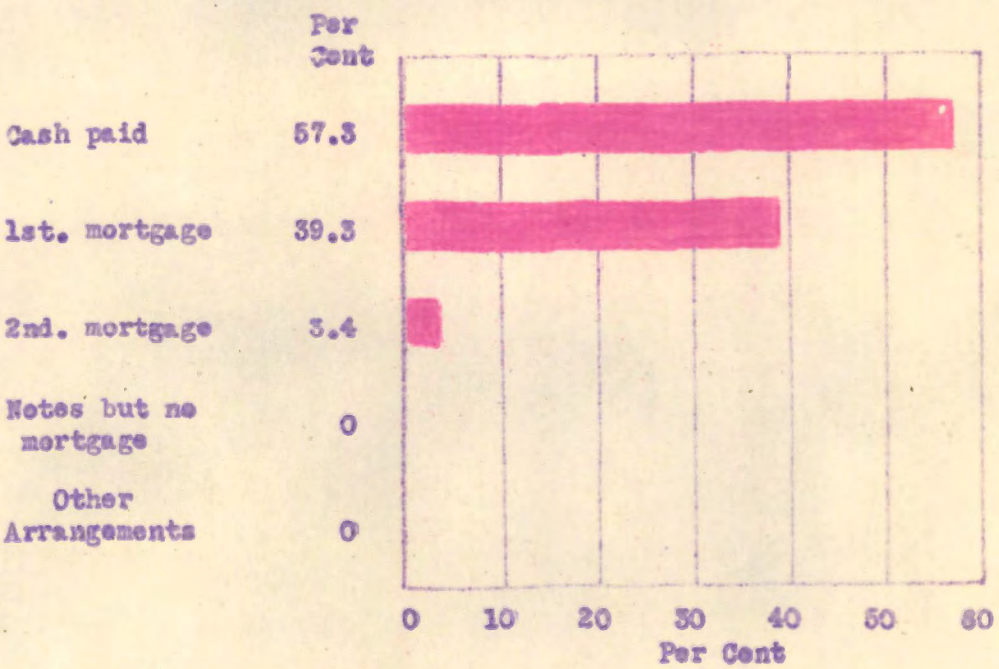


Fig. 15. Percentage of Total Consideration for Farm Real Estate Sold Represented by Specified Financial Arrangements, McMinn County, 1930-33

Morgan County. This county is located in the Cumberland Plateau area. It is very similar in most respects to the other counties of that area; hence, it should be safe to assume that results obtained for Morgan County are applicable to the Cumberland Plateau area.

It is almost startling to note that less than 25 per cent of the farm real estate transfers in Morgan County have been accompanied by partial down payments or no down payment, whereas 75.86 per cent of the parcels were sold for cash-in-full (Fig. 16). Credit has been of no great importance in the real estate market of this county. Only 30 per cent of the total consideration for farm real estate has been financed by the various instruments of credit (Fig. 17).

The credit used in Morgan County has been of a rather peculiar nature. Nine per cent of the total consideration for farm real estate sold has been financed by second mortgage, while only 8.3 per cent has been financed by first mortgage. However, the above data are based on only 116 voluntary sales during the period 1930-33. It is probable that the sample does not adequately represent the existing situation in Morgan County. While notes were of practically no importance as an instrument in the finance of farm real estate purchases in three of the counties studied, they represented 12.6 per cent of the total consideration in Morgan County.

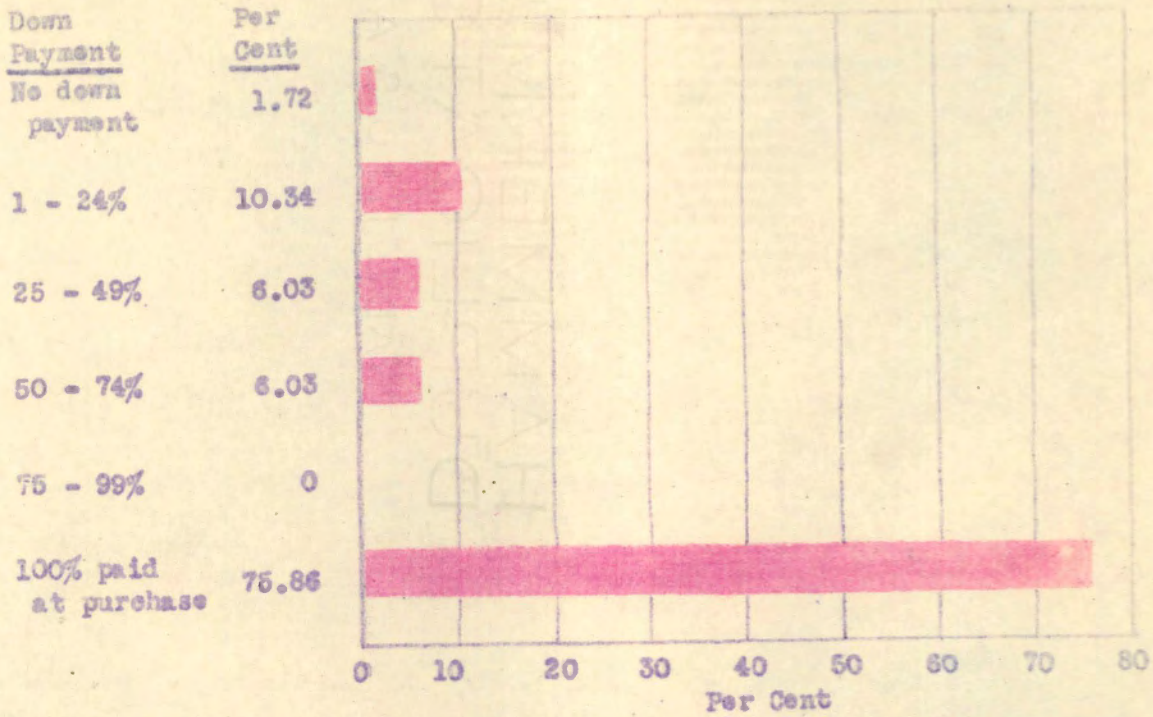


Fig. 16. Percentage of Parcels of Farm Real Estate Sold Under Specified Down-Payment Arrangements, Morgan County 1930-33

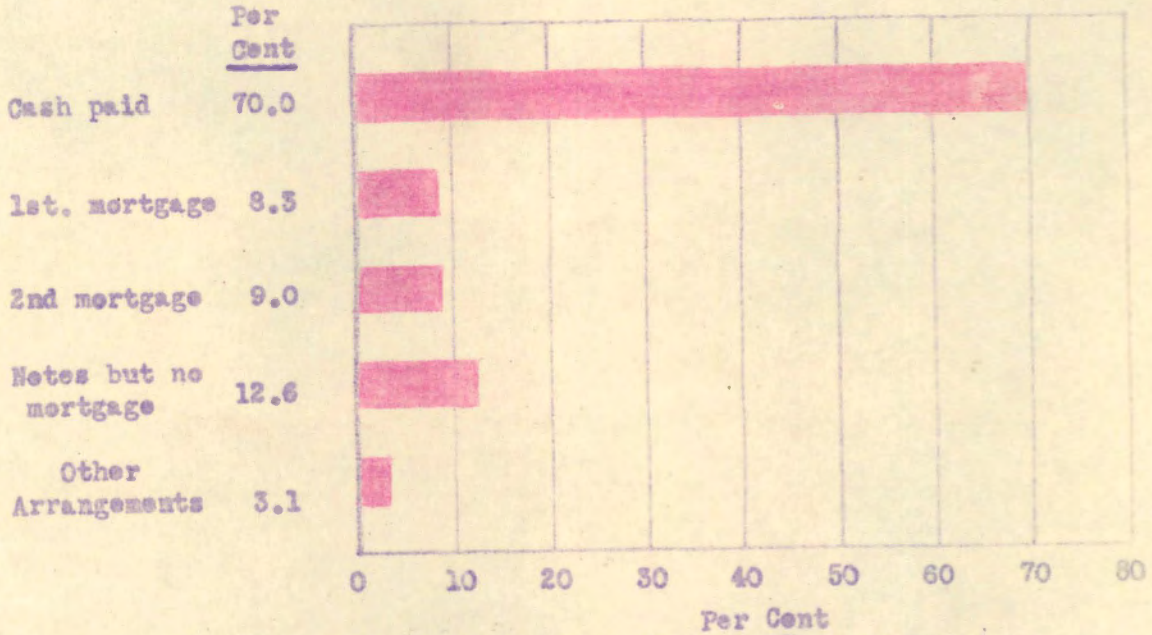


Fig. 17. Percentage of Total Consideration for Farm Real Estate Sold Represented by Specified Financial Arrangements, Morgan County, 1930-33

Overton County. This county lies largely within the Eastern Highland Rim area. The Cumberland Plateau penetrates a small portion of the southeastern section of the county. Very little agriculture is found in the Plateau section of the county. Overton County may be considered as representative of the northern section of the Eastern Highland Rim area.

The percentage of transfers accompanied by cash-in-full payments is larger in Overton County than in any other county studied. Here, 80.88 per cent of the voluntary sales of farm real estate were financed wholly on a cash basis (Table XIII). Transfers were rather uniformly distributed in the various partial-payment groups and the no-down-payment group, except that practically no transfers

Table XIII.

PERCENTAGE OF FARM REAL ESTATE SOLD UNDER SPECIFIED DOWN PAYMENT ARRANGEMENTS, OVERTON COUNTY, 1930-33

Down Payment	Per Cent	
	Of Total Parcels	Of Total Consideration
No down payment	3.52	5.80
1-24 per cent	4.11	5.38
25-49 per cent	5.58	9.34
50-74 per cent	5.58	12.40
75-99 per cent	0.29	0.18
100 per cent	80.88	66.88

were accompanied by down payments of 75 per cent to 99 per cent of total consideration.

Credit, for financing farm real estate purchases, has been of less importance in Overton County than in Morgan County. Only 20.6 per cent of the total consideration for farm real estate sold in Overton County has been represented by credit. Of this amount,

9.8 per cent has been accounted for by first mortgages, 2.99 per cent by second mortgages, 6.3 per cent by notes, and 1.4 per cent by other arrangements.

Putnam County. This county represents somewhat of a diversity of conditions. Part of the county lies in the Cumberland Plateau area, part within the Eastern Highland Rim area, and part within the Central Basin area.

The percentage of purchases paid for cash-in-full is somewhat greater than in Knox and McMinn counties, but much less than in Morgan and Overton counties. The distribution of parcels among the various down-payment groups is more uniform in Putnam County than in any other county studied (Table XIV).

Table XIV.

PERCENTAGE OF FARM REAL ESTATE SOLD UNDER SPECIFIED DOWN-PAYMENT ARRANGEMENTS, PUTNAM COUNTY, 1930-33

Down Payment	Per Cent	
	Of Total Parcels	Of Total Consideration
No down payment	9.20	10.79
1-24 per cent	8.80	19.08
25-49 per cent	13.00	18.26
50-74 per cent	10.40	11.85
75-99 per cent	4.40	4.21
100 per cent	54.20	35.68

In Putnam County, 54.4 per cent of the total consideration for farm real estate has been represented by cash paid, 41.5 per cent by first mortgages, 2.3 per cent by second mortgages, and 1.4 per cent by other arrangements. No notes were used.

Discussion. In general, the data indicate that a much larger percentage of farm real estate purchases are financed by credit in

the better agricultural counties than in the poorer counties. The ratio of cash paid, at time of purchase, to total consideration is much higher in the poorer agricultural counties than in the better counties. There is more than one possible explanation for this situation. It may be that purchasers of farm land in the poorer areas represent a more conservative group of people who are averse to mortgage debt and desirous of transacting a large portion of their business on a cash basis. It may be that creditors are more skeptical of the farmer's ability to obtain a given return from his investment in the poorer areas than is the case in the better agricultural regions. The latter explanation is probably of much more importance than the first.

Probably a considerable number of financial transactions in the five counties studied have not been recorded. If such is the case, it is possible that such transactions may be of an entirely different nature from those recorded. This possibility is suggested by the fact that the financial arrangements obtained from the county records differ considerably from general opinions based on observation. Since the number of records is large enough to permit the selection of samples of from 300 to 600 voluntary sales in each of four counties, and 116 voluntary sales in the other county, it seems much more likely that the bias might be in the opinions than in the data.

Chapter IV.

SOME COMPARISONS BETWEEN VOLUNTARY SALES AND FORECLOSURES

It is generally known that where the holder of a mortgage institutes and brings to a conclusion foreclosure proceedings resulting in the sale of a property, the property usually sells for considerably less than it would have under conditions of voluntary sale. What is the extent of this sacrifice in Tennessee? Has the sacrifice tended to become greater during the recent years of depression? Is the difference between voluntary and foreclosure sale prices fairly constant throughout the different areas of the state? How does size per parcel for voluntary sales and foreclosures compare? An attempt will be made in this chapter to throw some light on these and other questions concerning comparisons between voluntary sales and foreclosures.

Average Value Per Acre

Over a Period of Years. The average value per acre received for farm real estate sold at voluntary sales and at foreclosure sales, in Tennessee, from 1923 to 1933, is shown in Table XV. The percentage that average value per acre on foreclosed farms is of average value per acre on farms sold at voluntary sales has tended to follow no definite trend during the 11-year period studied. Average value per acre on foreclosed farms was 91.57 per cent of average value per acre on farms sold at voluntary sale in 1924, while in 1929 this percentage was 64.98. For the 11-year period, average value

Table XV.

PERCENTAGE THAT AVERAGE VALUE PER ACRE ON FORECLOSED FARMS IS OF AVERAGE VALUE PER ACRE ON FARMS SOLD AT VOLUNTARY SALES, TENNESSEE, 1923-33

Year	Average Value Per Acre		Percentage Foreclosure Values Are of Voluntary Sale Values
	Voluntary Sales	Foreclosure Sales	
1923	$20.72	$15.23	73.50
1924	21.02	19.25	91.57
1925	24.71	16.33	66.08
1926	24.34	18.36	75.43
1927	26.28	20.41	77.66
1928	27.14	18.94	69.78
1929	26.99	17.54	64.98
1930	24.30	18.96	78.02
1931	23.40	17.64	75.38
1932	20.35	17.11	84.07
1933	18.86	16.69	88.49
11-year average	$23.82	$17.77	74.60

per acre on foreclosed farms was 74.60 per cent of average value on farms sold at voluntary sales. Although the percentages have been somewhat irregular for the different years, they were largest in 1924, 1932, and 1933, which were years of business recession or depression. The percentage was lowest in 1929, an industrial boom year. The explanation seems to be that during the boom years, even though improvement in the agricultural situation did not correspond with improvement in the general industrial situation, only the poorest farms failed to produce sufficient income to meet debt requirements and were foreclosed. While only the poorest farms were being foreclosed, all kinds of farms were being sold at voluntary sales. As a result, the difference in average value per acre between voluntary sales and foreclosures was comparatively large. During

the years of depression, foreclosures were frequent on all kinds of farms, whereas the number of farms sold at voluntary sales was restricted. There may have been a stronger tendency to withhold the better farms from the market during the depression than there was to withhold the poorer farms. The net result was a smaller differential in the average value per acre between voluntary sales and foreclosures during periods of depression.

In Different Areas Within the State. The difference between average value per acre of farm real estate sold at voluntary and foreclosure sales has shown quite a large variation in the different areas of the state. Average values for the period 1928-33 are used in comparing the areas. The percentage that average value per acre for foreclosure sales is of average value per acre for voluntary sales varied from 29.67 per cent in Benton County to 99.79 per cent in Lake County (Table XVI). The difference between average value per acre for voluntary sales and foreclosures is shown by counties in Fig. 18. The differences do not appear to be very constant in the different counties within any particular area. The differences are very great in two counties in the upper East Tennessee Valley and two counties in the lower section of the Valley, while the differences are comparatively small in the central portion of the Valley. In the Cumberland Plateau and Central Basin areas, adjacent counties fall in the highest group and the lowest group. In the Eastern Highland Rim area, the counties in the northern portion of the area fall in the group of counties having

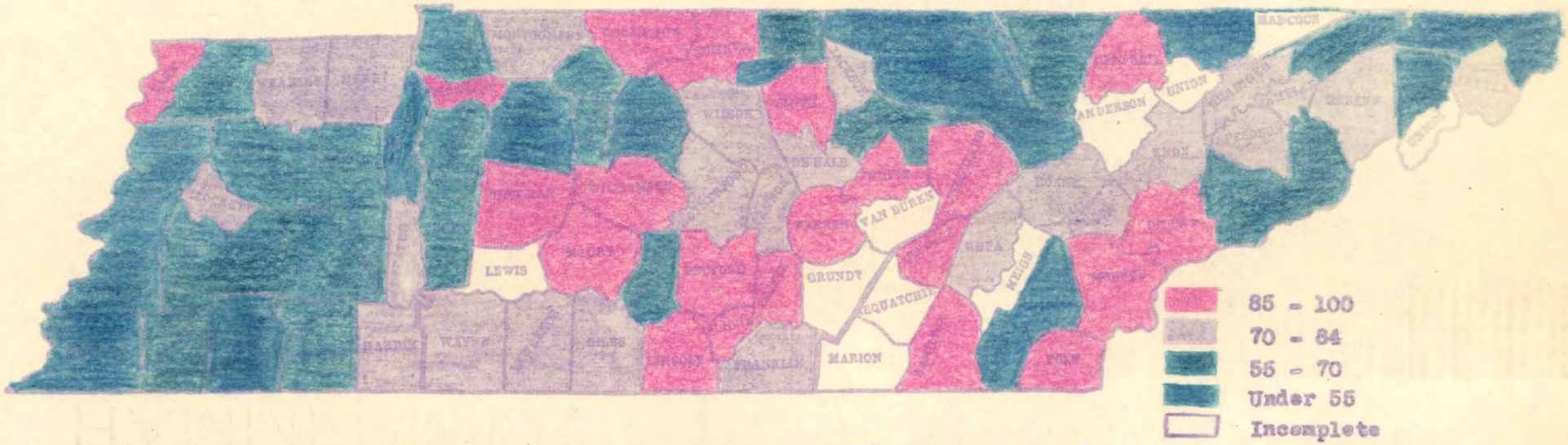


Fig. 18. Percentage that Average Value per Acre on Foreclosed Farms Is of Average Value per Acre on Farms Sold Voluntarily, in Tennessee Counties, 1928-33

Based on Table XVI.

Table XVI.

PERCENTAGE THAT AVERAGE VALUE PER ACRE ON FORECLOSED FARMS IS OF AVERAGE VALUE PER ACRE ON FARMS SOLD VOLUNTARILY, 1928-33

Rank	County	%	Rank	County	%	Rank	County	%
1	Lake	99.79	32	Jackson	78.64	64	Gibson	55.68
2	Campbell	99.10	33	Greene	77.86	65	Hawkins	55.26
3	Lincoln	98.59	34	Wayne	77.51	66	Sevier	55.19
4	Hamilton	98.43	35	Giles	77.15	67	Hardeman	54.47
5	Hickman	97.12	36	Decatur	76.62	68	Pickett	54.30
6	Coffee	96.47	37	Hardin	75.97	69	Dyer	54.24
7	Smith	96.11	38	Rutherford	75.74	70	Bradley	53.78
8	Sumner	95.76	39	Weakley	75.62	71	Davidson	52.70
9	Blount	92.92	40	Hamblen	74.85	72	Trousdale	51.27
10	Cumberland	91.30	41	Montgomery	72.95	73	Dickson	51.07
11	Maury	90.55	42	Wilson	72.24	74	Lauderdale	50.75
12	Monroe	90.25	43	Roane	71.89	75	Morgan	50.10
13	Warren	89.68	44	Henry	70.39	76	McMinn	50.09
14	Moore	89.56	45	Rhea	70.22	77	Sullivan	48.44
15	Bledsoe	88.94	46	Carroll	68.36	78	Overton	46.78
16	Houston	88.42	47	Marshall	66.00	79	Claiborne	44.61
17	Polk	88.01	48	Madison	65.74	80	Johnson	43.84
18	Williamson	87.46	49	Humphreys	65.66	81	Shelby	42.75
19	White	86.86	50	Henderson	65.39	82	Clay	40.04
20	Bedford	86.01	51	Obion	63.59	83	Fentress	38.54
21	Robertson	85.24	52	Cheatham	62.87	84	Tipton	35.82
22	Jefferson	84.60	53	Haywood	62.73	85	Benton	29.67
23	Loudon	82.97	54	Washington	62.69	86	Grundy	-
24	DeKalb	82.34	55	Putnam	62.46	87	Hancock	-
25	Grainger	81.54	56	Cocke	62.05	88	Lewis	-
26	Franklin	81.22	57	Macon	61.97	89	Marion	-
27	Cannon	80.66	58	Stewart	59.09	90	Meigs	-
28	Lawrence	80.43	59	Chester	58.04	91	Sequatchie	-
29	Knox	80.05	60	Fayette	57.94	92	Unicoi	-
30	Crockett	79.67	61	Perry	57.44	93	Union	-
31	Carter	79.10	62	McNairy	56.21	94	Van Buren	-
			63	Scott	56.14	95	Anderson	-
							State Average	74.07

the greatest differneces between voluntary sales and foreclosures, while counties in the southern portion of the area fall in the group having the smallest differences. The same situation prevails in other areas within the state.

The percentage that average value per acre for foreclosure sales is of average value per acre for voluntary sales, by soil areas, is

shown in Table XVII. Although the difference between voluntary sale values and foreclosure sale values is by no means constant in the different counties within a particular soil area, when the areas are compared some significant information is revealed. The percentages that foreclosure values are of voluntary sale values ranged from 61.75 per cent in the Southwestern Highland Rim area

Table XVII.

PERCENTAGE THAT AVERAGE VALUE PER ACRE ON FORECLOSED FARMS IS OF AVERAGE VALUE PER ACRE ON FARMS SOLD VOLUNTARILY IN TENNESSEE, BY SOIL AREAS, 1924-33

Area	Average Value Per Acre		Percentage Foreclosure Values are of Voluntary Sale Values
	Voluntary Sales	Foreclosure Sales	
Tennessee	$23.82	$17.77	74.60
Mississippi Bottoms	34.90	39.93	114.41
Western Highland Rim	16.88	14.59	86.43
Cumberland Plateau	8.09	6.88	85.04
Eastern Highland Rim	15.79	12.77	80.87
Central Basin	29.24	22.81	78.00
East Tennessee Valley	26.70	20.17	75.74
West Tennessee Slope	27.79	18.28	65.77
Unaka Range	24.26	18.90	64.88
Southwestern Highland Rim	11.61	7.17	61.75

to 114.41 per cent in the Mississippi Bottoms area (Lake County). The data for the Mississippi Bottoms and Unaka Range areas may not be considered as truly representative of those areas, since they are based on records from only one county in each of the respective areas. It seems that the Southwestern Highland Rim area has suffered from an over-valuation of poor land. As a result, the losses due to foreclosures have been quite heavy. With the exception of the cases just mentioned, the difference between

voluntary and foreclosure sale values has been greatest in the better agricultural areas, including the West Tennessee Slope, East Tennessee Valley, and Central Basin areas, and smallest in the poorer agricultural areas, including the Western Highland Rim, Cumberland Plateau, and Eastern Highland Rim areas.

The difference between voluntary and foreclosure sale values should not be regarded as a loss, or a gain in some cases, chargeable wholly to foreclosure. There is no reason to assume that the two types of sale have included lands of equal productivity. It is generally recognized that failures among farmers have been relatively greater on the poorer lands. There has been a tendency to overvalue the lands of low productivity. In commenting on this tendency in Minnesota, Johnson has reached the following conclusions:(1)

> In the past, and particularly during the land boom from 1918 to 1921, land was often looked upon as mere land and poor soils sold at prices often equal to the prices of highly productive soils. The failure of purchasers, real estate agents, and creditors to give adequate attention to differences in productivity of land has been an important cause of failure of farmers to meet financial obligations. To a great extent, in former years, loan agencies limited their loans to a certain percentage of appraised values of the real estate and the appraised values were based to a considerable extent on current sale values of land. If land sold at a high price, the loans would likely be high. If poor land was overvalued the burden of debt was relatively greater on these lands than on the better lands. The policy of creditors was an important factor causing failures among farmers.
>
> If we are to avoid a repetition of the present financial difficulties among farmers, credit policies must be changed. Appraisals of land for purposes of farm mortgage loans must be based upon a capitalization of probable earnings of the

2

(1) Johnson, E. C., Farm Mortgage Foreclosure in Minnesota, pp. 30-31.

the land over a long period rather than sale values at any particular time. This means giving careful attention to the productivity of land in all regions where loans are made, care being taken not to overvalue the poorer lands. Loan agencies will find it essential to study each case carefully in making a loan and not to follow rule-of-thumb methods. One farmer, for example, may be in position to use a larger loan to advantage than another on a farm of the same size in the same region. The question of risks, also, must be considered more carefully and rates established accordingly. If income from agriculture in one region is uncertain, then the rates charged on loans should be higher than in the region where the income is more certain and the risk less.

Since the grade of land sold at foreclosure sales may be entirely different from the land sold at voluntary sales in the same region, any difference in value certainly should not be explained wholly by the fact that land tends to sell for less when foreclosed than when sold voluntarily. Without making a rather detailed study of each parcel of farm real estate sold, to determine its productive value, it is impossible to ascertain how much of the difference in value between voluntary and foreclosure sales is due to the conditions under which the parcels were sold and how much is due to the difference in the grades of land involved. The data are of interest, however, from the standpoint of comparisons between regions and showing changes from year to year.

Average Number of Acres per Parcel

Over a Period of Years. Foreclosures have been more common on large farms than on small farms. The average number of acres per parcel foreclosed and sold voluntarily is shown in Table XVIII. During the 11-year period 1923-33, the average number of acres per farm on foreclosed farms has ranged from 41.9 per cent to 91.5 per cent larger than on farms sold voluntarily, averaging 70.2 per cent

larger for the entire period. There has been no definite trend in the average number of acres per parcel for either voluntary sales or foreclosures. The percentage that average number of acres per foreclosed parcel is of average number of acres per parcel sold voluntarily has been very irregular from year to year, with no tendency to move upward or downward for any length of time.

Table XVIII.

COMPARISON OF AVERAGE NUMBER OF ACRES PER PARCEL, VOLUNTARY SALES AND FORECLOSURES, IN TENNESSEE, 1923-33

Year	Average Number of Acres Per Parcel		Percentage Foreclosure is of Voluntary Sale
	Voluntary Sales	Foreclosure Sales	
1923	79.9	118.2	147.9
1924	73.2	140.1	191.3
1925	68.3	124.6	182.4
1926	74.7	116.7	156.2
1927	70.8	119.7	169.0
1928	69.6	117.5	168.8
1929	68.9	126.8	184.0
1930	82.1	122.8	149.5
1931	70.1	110.6	157.7
1932	76.0	107.9	141.9
1933	77.8	134.9	173.3
11-year average	73.0	124.3	170.2

In Different Areas Within the State. The percentage that average number of acres per farm on foreclosed farms is of average number of acres on farms sold voluntarily, from 1928 to 1933, is shown by counties in Fig. 19 and Table XIX. In Lake County, the average number of acres per parcel was the same for voluntary sales and foreclosures. In Hardeman County, the average number of acres per parcel was 335 per cent greater for foreclosures than for voluntary sales. For the state as a whole, the average number of acres per parcel was 74.89 per cent greater for foreclosures than for voluntary

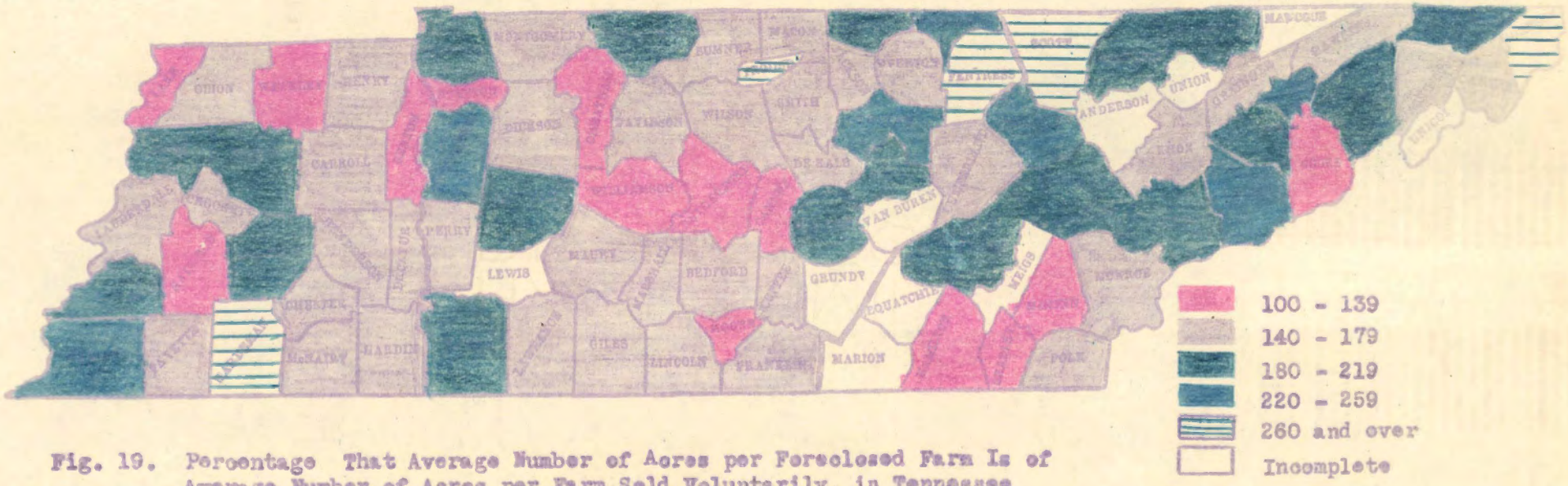


Fig. 19. Percentage That Average Number of Acres per Foreclosed Farm Is of Average Number of Acres per Farm Sold Voluntarily, in Tennessee Counties, 1928-33

Based on Table XIX.

Table XIX.

PERCENTAGE THAT AVERAGE NUMBER OF ACRES PER FORECLOSED FARM IS OF AVERAGE NUMBER OF ACRES PER FARM SOLD VOLUNTARILY, 1928-33

Rank	County	Acres Per Farm		Per Cent	Rank	County	Acres Per Farm		Per Cent
		Voluntary Sales	Foreclosure				Voluntary Sales	Foreclosure	
1	Lake	157	157	100	49	Chester	76	135	176
2	Willi.	90	105	116	50	Hardin	79	141	176
3	Bradley	75	89	118	51	Grain.	73	129	177
4	Cocke	71	86	120	52	McNairy	77	137	177
5	Ruther.	100	128	127	53	Dyer	75	136	180
6	Weakley	57	73	128	54	Hickm.	115	208	180
7	Cannon	92	119	129	55	Blount	59	106	181
8	Moore	71	92	129	56	Greene	43	79	181
9	Hamil.	35	46	130	57	Warren	86	156	181
10	Hayw.	94	125	133	58	Robert.	76	141	184
11	Houst.	121	163	135	59	Wayne	124	229	184
12	Cheat.	82	112	136	60	Roane	101	187	185
13	McMinn	71	98	137	61	White	56	105	188
14	Benton	109	152	139	62	Gibs.	47	90	192
15	Hender.	85	119	140	63	Loudon	79	153	193
16	DeKalb	66	93	141	64	Jeffer.	66	128	194
17	Frank.	81	115	141	65	Rhea	75	151	200
18	David.	57	82	143	66	Claib.	40	82	201
19	Maury	93	133	143	67	Madison	66	134	201
20	Lauder.	95	137	144	68	Tipton	75	152	203
21	Decatur	99	145	145	69	Clay	76	155	204
22	Knox	40	58	145	70	Campb.	40	83	206
23	Linc.	104	151	145	71	Bleds.	93	197	211
24	Giles	88	129	147	72	Stew.	88	188	213
25	Hawkins	49	72	147	73	Morg.	70	154	220
26	Wash.	29	44	149	74	Hambl.	46	105	226
27	Carroll	70	107	152	75	Sulli.	38	88	229
28	Bedf.	89	137	153	76	Pick.	42	98	231
29	Jacks.	57	87	153	77	Humph.	138	326	235
30	Cumber.	117	181	154	78	Sevier	47	112	235
31	Henry	73	112	154	79	Putn.	52	128	242
32	Macon	49	77	154	80	Shelby	50	124	249
33	Carter	29	45	158	81	Trousd.	79	208	260
34	Marsh.	80	127	158	82	Johns.	36	103	281
35	Wilson	72	115	159	83	Scott	63	231	365
36	Smith	83	133	160	84	Fentr.	69	258	371
37	Montg.	82	132	161	85	Harde.	50	220	435
38	Coffee	76	123	162	86	Ander.	-	-	-
39	Lawr.	82	134	163	87	Grundy	-	-	-
40	Overton	58	95	163	88	Hanc.	-	-	-
41	Perry	145	241	165	89	Lewis	-	-	-
42	Dicks.	90	151	167	90	Marion	-	-	-
43	Monroe	76	127	167	91	Meigs	-	-	-
44	Obion	73	122	167	92	Sequat.	-	-	-
45	Sumner	69	115	167	93	Unicoi	-	-	-
46	Crock.	48	82	171	94	Union	-	-	-
47	Polk	75	98	174	95	V. Bur.	-	-	-
48	Fayette	122	215	175	State Ave.		71	125	174

sales. Foreclosed parcels were over twice as large as parcels sold voluntarily in twenty counties, over three times as large in three counties, and over four times as large in one county.

The percentage that average number of acres per foreclosed farm is of average number of acres per farm sold voluntarily is shown by soil areas in Table XX. Since the Unaka Range and Mississippi Bottoms areas are represented by only one county each, the data for those areas cannot be considered as representative of very wide areas.

Table XX.

PERCENTAGE THAT AVERAGE NUMBER OF ACRES PER FORECLOSED FARM IS OF AVERAGE NUMBER OF ACRES PER FARM SOLD VOLUNTARILY IN TENNESSEE, BY SOIL AREAS, 1924-33

Area	Average Number of Acres Per Farm		Percentage Foreclosure is of Voluntary Sale
	Voluntary Sales	Foreclosure Sales	
Tennessee	72.80	124.09	170.45
Unaka Range	44.76	18.90	42.22
Mississippi Bottoms	177.38	161.03	85.14
Central Basin	83.80	130.68	155.94
Western Highland Rim	96.20	156.57	162.75
Southwestern Highland Rim	79.27	130.56	164.70
East Tennessee Valley	64.25	110.14	171.42
Eastern Highland Rim	72.55	125.49	172.97
West Tennessee Slope	71.79	127.93	178.20
Cumberland Plateau	77.83	175.76	225.82

In each of these areas the number of acres per foreclosed farm was less than the number of acres per farm sold voluntarily. In those areas where more representative data are available, the smallest difference between average number of acres per foreclosed farm

and average number of acres per farm sold voluntarily was found in the Central Basin area, where foreclosed farms were 55.94 per cent larger than farms sold voluntarily. In the Cumberland Plateau area, where the greatest difference was found, foreclosed farms were 125.82 per cent larger than farms sold voluntarily.

The average number of acres per parcel sold voluntarily, 1928-1933, is shown by counties in Fig. 20. The average size of parcels sold has been largest in certain portions of the Cumberland Plateau and Western Highland Rim areas and in Fayette and Lake Counties in West Tennessee. The average size of parcels sold has been smallest in East Tennessee and in certain individual counties in Middle and West Tennessee.

It should be explained at this point that voluntary sales include a number of small parcels which are only parts of farms. In the case of foreclosures the unit sold usually consists of an entire farm. If a sample could be selected to include voluntary sales of only those parcels which are entire farms, the difference between the average size of foreclosed farms and farms sold voluntarily would be considerably less. Available data do not permit a comparison of the sizes of actual farms foreclosed and sold voluntarily. If such data were available, it would be expected that foreclosed farms would be larger than farms sold voluntarily, for reasons given later. The relation of size of farm to foreclosures, losses, average loan per acre, and average loan per farm, in Southeast Alabama, is shown in Table XXI. It is evident that, in general, the percentage of loans foreclosed increased as the number of acres per farm increased.



Fig. 20. - Average Number of Acres per Parcel, Voluntary Transfers in Tennessee Counties, 1928-1933.

Based on Table in files of Department of Agricultural Economics, University of Tennessee.

Table XXI.

RELATION OF SIZE OF FARM TO FORECLOSURES, LOSSES, AND OTHER FACTORS, IN SOUTHEAST ALABAMA, 1917-1931

Number of Acres Per Farm	Average Loan Per Farm	Average Loan Per Acre	Loss per $1,000 Loaned	Per Cent of Loans Foreclosed
1-19	$ 500	$31	$ 0	0
20-59	853	20	9	5
60-99	1,413	18	20	9
100-139	1,941	17	28	14
140-219	2,796	16	48	19
220-299	3,891	15	54	21
300-459	5,128	14	85	30
460-779	7,892	14	86	28
780-1,319	10,556	11	129	39
1,320-2,639	13,292	8	102	23
Average	$ 2,556	$15	$ 54	15

The average loan per farm was lowest on the smallest farms, while the average loan per acre was highest on the smallest farms. The per cent of loans foreclosed and the loss per $1,000 loaned were lowest on the smallest farms and increased as the number of acres per farm increased.

Mereness, who conducted the above investigation, has offered a brief explanation of the data presented.

> In adverse years, farmers on small farms can pay their debts by practicing very strict personal economy. Large farms are dependent on hired or cropper labor, and it is impossible to reduce wages and expenses as rapidly as incomes decline in adverse years. In years of falling prices, as in 1930, many landlords make advances to their tenants in the form of high-priced seed, fertilizer, and food to an amount which is far in excess of the possible return with low prices, even with a good crop. In such years, strict personal economy on the part of the owner of a 500 acre farm can have very little effect on the ability to pay interest on a large debt.
>
> Although the per cent of foreclosures was much higher on large farms than on small ones, this relationship was different on poor soils than on good soils. On sandy loam soils as size of farm increased the percentage of loans foreclosed increased less rapidly than on other soils. If loans are to be granted

on the poorest soils, they should be very conservative, and only on the smallest farms.(2)

For Tennessee counties, the data do not permit a comparison of the absolute difference between average number of acres per foreclosed farm and average number of acres per farm sold voluntarily; but they do give a rough idea of this difference and serve as a basis for comparisons between counties and other areas.

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(2) Mereness, E. H., Farm Mortgage Loan Experience in Southeast Alabama, pp. 13-14

Chapter V.

RELATION BETWEEN SALE VALUES AND ASSESSED VALUES OF FARM REAL ESTATE

The real properties of the State of Tennessee bear the greater portion of the tax burden and therefore any discrepancies in the assessment of these properties are significant. The Constitution of the State of Tennessee states that, "all property shall be taxed according to its value, that value to be ascertained in such manner as the legislature shall direct, so that taxes shall be equal and uniform throughout the state. No one species of property, from which a tax may be collected, shall be taxed higher than any other species of property of the same value".(1) The law requires that assessments be made at full cash value. Yet it is a matter of common knowledge that virtually no assessor assesses real property at what he himself believes it to be worth. The causes of, results of, and suggested remedies to reduce inequalities in assessments are many and varied. It is not the purpose of this report to study such phases of assessment practices, since such a study would itself constitute a rather comprehensive report. It is intended to confine this phase of the report largely to a study of the ratios of assessed values to sale values of farm real estate during the period 1930-1933. It should be of interest to know the relation between sale values and assessed values in the different areas of the state and for parcels of farm real estate of different sizes and values. Only voluntary sales are

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(1) Constitution of the State of Tennessee, Article II, Section 28.

considered in this study. True consideration and assessed valuation have been tabulated for each voluntary sale, thus affording a ready comparison between the two values or appraisals. Assessment ratio, as used here, refers to the percentage that the assessed value is of the sale value of a parcel, or parcels, of farm real estate.

Assessment Ratios in Tennessee: 1930-33

By Counties. The ratios of assessed values to sale values of farm real estate, in Tennessee counties, are illustrated in Fig. 21 and ranked from low to high in Table XXII. The ratios ranged from 36.92 per cent in Johnson County to 117.43 per cent in Benton County. The state average was 79.48 per cent. Assessment ratios were over 100 per cent in 11 counties, and less than 50 per cent in 3 counties. The highest ratios were found in certain counties of the Western Highland Rim area, including 3 counties along the Tennessee River in West Tennessee, and in four other counties representing each of the three main divisions of the state. The ratios were less than 55 per cent in nine counties. Seven of these counties are located in East Tennessee and two in Middle Tennessee. Assessment ratios were higher in West Tennessee than in either of the other main divisions of the state. The variation in assessment ratios is illustrated in Fig. 22. The counties having the highest and lowest ratios are shown, along with 9 counties of intermediate ranks.

All Parcels



Fig. 21.- Ratios of Assessed Values to Sale Values of Farm Land and Buildings in Tennessee Counties, 1930-1933.

Based on Table XXII.

Rank	County
95th.	Benton
91st.	Hickman
81st.	Lincoln
71st.	Franklin
61st.	Lauderdale
51st.	Madison
41st.	Humphreys
31st.	Bedford
21st.	Carter
11th.	Polk
1st.	Johnson

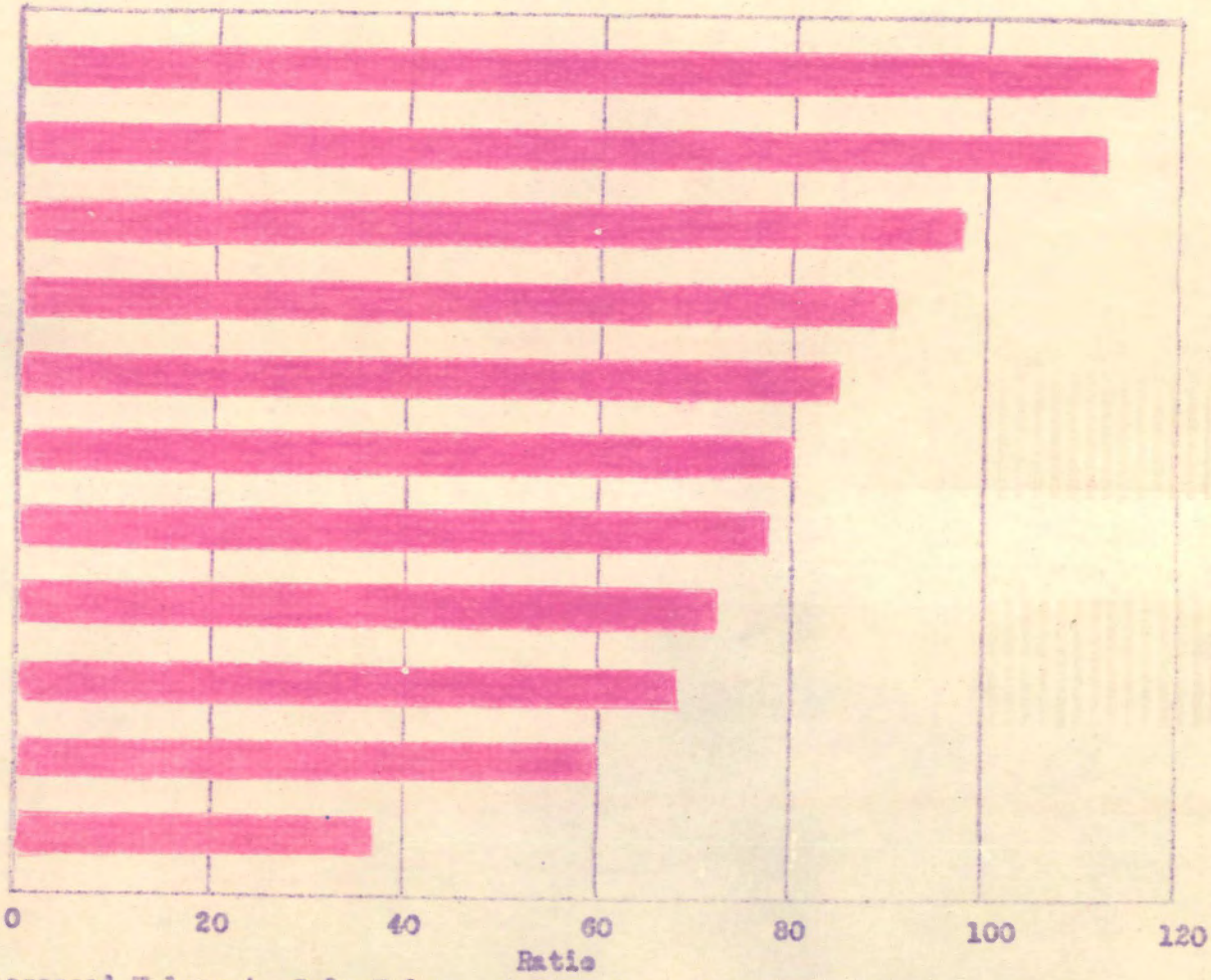


Fig. 22. Ratios of Assessed Values to Sale Values of Farm Real Estate in Selected Tennessee Counties, 1930-1933

Based on Table XXII.

Table XXII.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, ALL PARCELS SOLD, IN TENNESSEE, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Johnson	36.92	33	Dyer	72.49	65	Smith	87.76
2	Sullivan	43.55	34	Hamblen	72.61	66	Henderson	87.87
3	Unicoi	49.93	35	Hardeman	74.08	67	Williamson	88.12
4	Jackson	51.67	36	Roane	74.67	68	Grainger	88.61
5	Campbell	52.32	37	White	75.88	69	Fayette	89.67
6	McMinn	52.32	38	Monroe	76.58	70	Lawrence	90.61
7	Sevier	52.71	39	Davidson	77.25	71	Franklin	90.87
8	Stewart	53.98	40	Maury	77.30	72	Cannon	90.94
9	Hawkins	54.49	41	Humphreys	77.39	73	Jefferson	90.98
10	Meigs	58.29	42	Pickett	77.96	74	Coffee	91.00
11	Polk	59.84	43	Putnam	78.39	75	Weakley	92.92
12	Wayne	62.00	44	Clay	78.94	76	McNairy	93.00
13	Anderson	62.44	45	Loudon	79.03	77	Wilson	93.44
14	Moore	62.52	46	Obion	79.04	78	Morgan	94.02
15	Sumner	64.31	47	Hancock	79.34	79	Grundy	94.35
16	Cocke	65.26	48	Tipton	79.50	80	Chester	94.67
17	Blount	65.73	49	Overton	79.52	81	Lincoln	97.43
18	Warren	65.89	50	Giles	79.93	82	Rutherford	97.87
19	Sequatchie	66.11	51	Madison	80.03	83	Marshall	98.08
20	Dickson	67.51	52	Lake	80.24	84	Scott	99.13
21	Carter	68.38	53	Shelby	80.30	85	Houston	100.04
22	Macon	69.16	54	Haywood	80.68	86	Greene	101.41
23	Washington	69.32	55	Rhea	80.73	87	Trousdale	101.60
24	Marion	69.36	56	Van Buren	81.93	88	Montgomery	102.98
25	Perry	69.95	57	Fentress	81.95	89	Hardin	103.29
26	DeKalb	70.51	58	Union	82.01	90	Cumberland	104.69
27	Claiborne	70.75	59	Crockett	82.05	91	Hickman	112.26
28	Bradley	71.30	60	Robertson	83.30	92	Decatur	113.01
29	Knox	71.62	61	Lauderdale	84.45	93	Gibson	115.59
30	Bledsoe	71.72	62	Henry	85.27	94	Lewis	116.50
31	Bedford	71.99	63	Cheatham	86.12	95	Benton	117.43
32	Hamilton	72.04	64	Carroll	87.39			
							State Average	79.48

By Soil Areas. The ratios of assessed values to sale values of farm real estate, in Tennessee, is shown by soil areas in Table XXIII. The Unaka Range and Mississippi Bottoms areas probably should not be compared with the other areas, since they are represented by only one county each. Assessment ratios have been lowest in the East Tennessee Valley area.

The average ratio in that area, for the period 1930-33, was 74.56 per cent. The highest ratio, 100.93 per cent, was found in the Cumberland Plateau area.

Table XXIII.

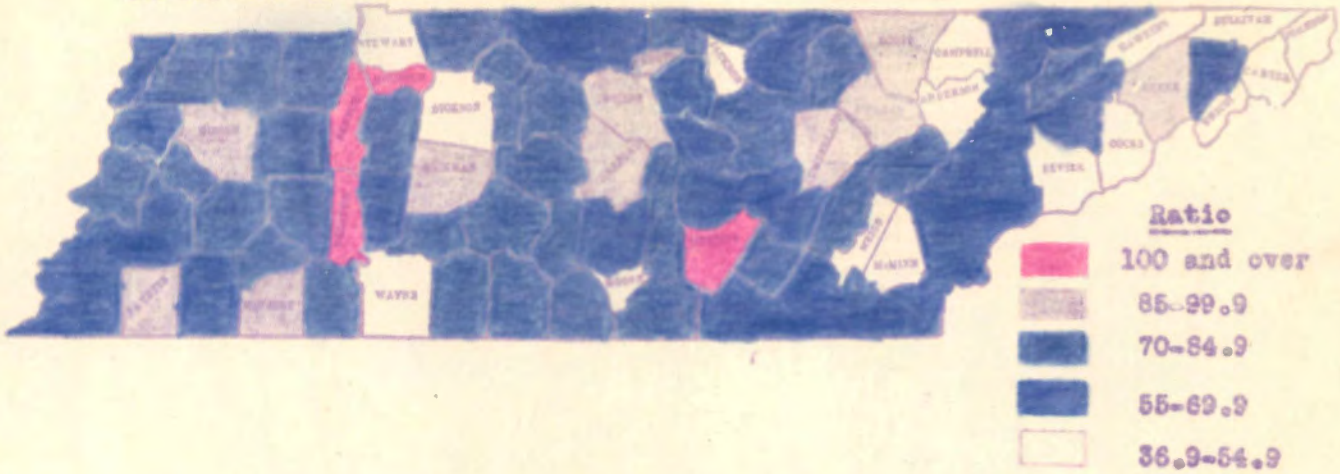
RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE IN TENNESSEE, BY SOIL AREAS, 1930-33

Area	Assessment Ratio
Tennessee	79.48
Unaka Range	49.92
East Tennessee Valley	74.56
Eastern Highland Rim	77.83
Mississippi Bottoms	80.24
West Tennessee Slope	83.27
Central Basin	87.93
Western Highland Rim	88.60
Southwestern Highland Rim	94.76
Cumberland Plateau	100.93

Assessment Ratios by Size Groups

For the purpose of studying assessment ratios by size groups, voluntary sales have been divided into three size groups, namely, parcels of under 50 acres, parcels of 50 to 99 acres, and parcels of 100 acres and over. The ratios of assessed values to sale values of farm real estate, in Tennessee counties, are illustrated by size groups in Fig. 23. It is readily apparent that as the size of parcel increases, the number of counties having high assessment ratios increases and the number of counties having low assessment ratios decreases. The number of counties falling within specified assessment ratio groups, by size of parcel, is shown in Table XXIV. As the size of parcel

A. Parcels of Under 50 Acres



B. Parcels of 50 - 99 Acres



C. Parcels of 100 Acres and Over



Fig. 23.- Ratios of Assessed Values to Sale Values of Farm Land and Buildings, by Acreage Groupings, in Tennessee Counties, 1930-1933.

Based on Tables XXV, XXVI, and XXVII.

increased, the number of counties in the lowest assessment ratio group decreased from 16 to 9 to 7 in the three specified size groups. As the size of parcel increased, the number of counties in the highest assessment ratio group increased from 4 to 9 to 24 in the respective size groups. The increases and decreases in the number of counties in the next highest and next lowest assessment ratio groups, as the size of parcel increases, is fully as significant as in the highest and lowest groups.

Table XXIV.

NUMBER OF COUNTIES FALLING WITHIN SPECIFIED ASSESSMENT RATIO GROUPS, BY SIZE OF PARCELS, TENNESSEE, 1930-33

Assessment Ratio	Size of Parcel		
	Under 50 Acres	50-99 Acres	100 Acres and Over
Under 55	16	9	7
55 - 69.9	31	25	10
70 - 84.9	33	37	27
85 - 99.9	11	15	27
100 and over	4	9	24

The wide variation of assessment ratios in Tennessee counties, by size of parcel, is shown in Tables XXV, XXVI, and XXVII. The counties are ranked from low to high for each size group. For parcels of under 50 acres, the assessment ratio ranges from 31.30 per cent in Johnson County to 162.18 per cent in Houston County. The state average ratio for this group of parcels is 67.92 per cent. The ratio ranges from 16.33 per cent in Grundy County to 124.55 per cent in Lewis County, for parcels of 50 to 99 acres. The Grundy County ratio is based on a very small number of sales and cannot be considered as representative. The next lowest ratio is 38.31

Table XXV.

RATIOS OF ASSESSED VALUES TO SALE VALUE OF FARM REAL ESTATE, PARCELS OF UNDER 50 ACRES, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Johnson	31.30	33	Van Buren	62.74	65	Rhea	77.97
2	Sullivan	37.75	34	Bradley	63.02	66	Coffee	78.03
3	McMinn	42.68	35	Marion	63.10	67	Chester	78.40
4	Jackson	42.78	36	Pickett	63.34	68	Lauderdale	79.34
5	Sevier	42.91	37	Tipton	64.12	69	Lewis	79.45
6	Unicoi	47.30	38	Haywood	64.23	70	Henry	80.12
7	Campbell	49.46	39	Union	64.35	71	Henderson	80.15
8	Wayne	50.20	40	Sumner	64.49	72	Cheatham	81.16
9	Anderson	50.38	41	Bledsoe	64.51	73	Crockett	81.68
10	Meigs	50.58	42	Blount	65.10	74	Hardin	81.79
11	Moore	52.09	43	Knox	66.73	75	Sequatchie	81.85
12	Hawkins	52.26	44	Jefferson	68.55	76	Humphreys	82.08
13	Dickson	52.69	45	Dyer	68.91	77	Lincoln	83.18
14	Carter	53.68	46	Shelby	69.03	78	Montgomery	83.20
15	Cocke	53.94	47	Smith	69.63	79	Carroll	84.36
16	Stewart	54.75	48	Davidson	70.27	80	Weakley	84.65
17	Perry	55.00	49	Putnam	70.39	81	Wilson	85.13
18	Robertson	57.42	50	Clay	70.45	82	Cumberland	86.06
19	Bedford	58.26	51	Lawrence	70.52	83	McNairy	86.06
20	Washington	58.34	52	Giles	70.72	84	Trousdale	88.48
21	Overton	58.66	53	Madison	70.98	85	Rutherford	90.09
22	Lake	58.74	54	Obion	71.40	86	Hickman	90.93
23	DeKalb	58.84	55	White	71.54	87	Fayette	91.45
24	Monroe	59.53	56	Roane	71.76	88	Greene	93.64
25	Claiborne	59.78	57	Marshall	71.86	89	Gibson	94.14
26	Hardeman	60.60	58	Cannon	71.95	90	Scott	99.87
27	Polk	60.69	59	Macon	72.58	91	Morgan	99.97
28	Hamilton	60.77	60	Franklin	72.96	92	Decatur	104.91
29	Warren	61.18	61	Maury	73.38	93	Grundy	111.75
30	Hancock	61.92	62	Fentress	74.87	94	Benton	115.87
31	Loudon	62.35	63	Williamson	77.54	95	Houston	162.18
32	Hamblen	62.52	64	Grainger	77.70			
							State Average	67.92

Table XXVI.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, PARCELS OF 50-99 ACRES, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Grundy	16.33	33	Hardeman	69.48	65	Lawrence	82.06
2	Johnson	38.31	34	Cocke	69.52	66	Cheatham	82.09
3	Wayne	42.44	35	Houston	70.45	67	Giles	82.96
4	McMinn	45.93	36	Cannon	70.61	68	Crockett	83.57
5	Sevier	47.16	37	Macon	71.73	69	Cumberland	83.89
6	Roane	47.36	38	Hamblen	72.64	70	Chester	83.97
7	Anderson	49.80	39	Claiborne	73.37	71	Fayette	84.59
8	Sullivan	49.83	40	White	73.55	72	Lincoln	85.45
9	Jackson	52.99	41	Hamilton	74.04	73	Montgomery	85.52
10	Sequatchie	55.01	42	Fentress	74.87	74	Hickman	86.21
11	Moore	55.23	43	Bledsoe	75.25	75	Robertson	86.79
12	Hawkins	56.79	44	Davidson	75.97	76	Rutherford	88.17
13	Marion	56.95	45	Rhea	76.12	77	Smith	90.30
14	Stewart	57.81	46	Knox	76.17	78	Henry	91.79
15	Bradley	59.16	47	Madison	76.17	79	Trousdale	92.67
16	Meigs	59.99	48	Obion	76.69	80	Weakley	92.82
17	Shelby	61.33	49	Hancock	76.72	81	Coffee	93.31
18	Carter	61.56	50	Monroe	76.87	82	Wilson	95.92
19	Warren	61.82	51	Overton	76.89	83	Scott	96.12
20	Campbell	62.77	52	Humphreys	77.47	84	Union	96.18
21	Dickson	63.94	53	Henderson	77.64	85	Marshall	96.47
22	Perry	64.22	54	Haywood	77.71	86	Unicoi	99.12
23	Polk	64.75	55	Loudon	78.07	87	Jefferson	100.09
24	Bedford	64.78	56	Van Buren	78.64	88	McNairy	100.77
25	Sumner	64.92	57	Dyer	79.01	89	Hardin	103.44
26	Putnam	65.87	58	Lauderdale	79.52	90	Morgan	103.77
27	Tipton	66.25	59	Lake	79.61	91	Benton	104.12
28	DeKalb	66.28	60	Williamson	81.57	92	Greene	115.20
29	Blount	67.44	61	Clay	81.72	93	Gibson	119.08
30	Pickett	67.84	62	Grainger	81.87	94	Decatur	119.49
31	Maury	68.49	63	Franklin	81.92	95	Lewis	124.55
32	Washington	68.78	64	Carroll	81.98			
							State Average	78.41

Table XXVII.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, PARCELS OF 100 ACRES AND OVER, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Pickett	27.76	33	White	79.97	65	Jefferson	95.84
2	Unicoi	41.85	34	Crockett	80.21	66	Smith	96.23
3	Johnson	46.16	35	Clay	80.31	67	Overton	96.35
4	Campbell	50.29	36	Maury	80.68	68	Henderson	97.55
5	Sullivan	51.50	37	Grundy	80.95	69	Grainger	97.56
6	Stewart	51.84	38	Davidson	82.21	70	Putnam	98.84
7	Hawkins	54.75	39	DeKalb	82.57	71	Lauderdale	98.89
8	Jackson	56.84	40	Henry	82.87	72	Tipton	100.50
9	Meigs	59.03	41	Obion	83.24	73	Lewis	101.09
10	Polk	59.11	42	Monroe	83.27	74	Scott	103.22
11	McMinn	59.48	43	Lake	83.48	75	Rutherford	103.33
12	Macon	60.81	44	Rhea	83.89	76	Hamilton	103.50
13	Sumner	64.05	45	Giles	85.10	77	Houston	104.94
14	Blount	65.44	46	Haywood	85.36	78	Greene	105.04
15	Sequatchie	66.64	47	Morgan	85.47	79	Chester	105.44
16	Wayne	68.00	48	Loudon	87.00	80	Cannon	105.45
17	Warren	69.59	49	Carter	88.36	81	Franklin	105.57
18	Moore	70.47	50	Hamblen	88.44	82	Washington	105.63
19	Dyer	71.11	51	Cheatham	89.81	83	Marshall	105.84
20	Bledsoe	71.74	52	Madison	90.01	84	Trousdale	107.57
21	Sevier	72.26	53	Fayette	90.62	85	Lincoln	109.47
22	Cooke	74.84	54	Claiborne	91.26	86	Lawrence	110.72
23	Dickson	74.96	55	Hancock	91.62	87	Shelby	111.67
24	Marion	75.83	56	Fentress	91.96	88	Weakley	112.29
25	Knox	75.97	57	McNairy	92.53	89	Decatur	113.47
26	Humphreys	76.53	58	Van Buren	92.70	90	Montgomery	113.93
27	Perry	76.69	59	Williamson	92.83	91	Hardin	116.03
28	Bedford	76.87	60	Robertson	92.87	92	Hickman	119.41
29	Roane	77.49	61	Union	94.09	93	Benton	122.65
30	Anderson	78.51	62	Wilson	94.85	94	Gibson	134.34
31	Bradley	79.80	63	Coffee	95.08	95	Cumberland	134.99
32	Hardeman	79.89	64	Carroll	95.57			
							State Average	86.66

per cent, in Johnson County. The state average ratio for this group is 78.41 per cent. For the larger parcels, those of 100 acres and over, the assessment ratio ranges from 27.76 per cent in Pickett County to 134.99 per cent in Cumberland County. The state average ratio for parcels of 100 acres and over is 86.66 per cent. Although the highest and lowest ratios have not differed greatly for the different size groups, the variations within the size groups have been very dissimilar, as illustrated in Fig. 25.

The ratios of assessed values to sale values of farm real estate, in Tennessee, are more clearly illustrated in Fig. 25. It is clearly evident that as the size of parcel increases, the ratio of assessment increases. This relationship does not hold true for every county in the state. Individual counties present numerous variations from the assessment ratios for the whole state; in fact, the relationship between the size groups may be in the reverse order in a very few counties. However, the relationship for the state, as a whole, will suffice to give a definite idea of the general situation. Ratios for individual counties are available in the accompanying tables. To determine the ratios of assessed values to sale values of farm real estate, by size groups, in any given county, it is only necessary to locate the given county in Tables XXV, XXVI, and XXVII.

Assessment Ratios by Value Groups

For the purpose of studying assessment ratios by value groups, voluntary sales have been divided into three groups, namely, parcels selling for under $1,000, parcels selling for $1,000 to $2,000, and

parcels selling for over $2,000. The ratios of assessed values to sale values of farm real estate, in Tennessee counties, are illustrated by value groups in Fig. 24. It is very evident that as the value per parcel increases, the number of counties having high assessment ratios decreases and the number of counties having low assessment ratios increases. The number of counties falling within specified assessment ratio groups, by value of parcel, is shown in Table XXVIII. As the

Table XXVIII.

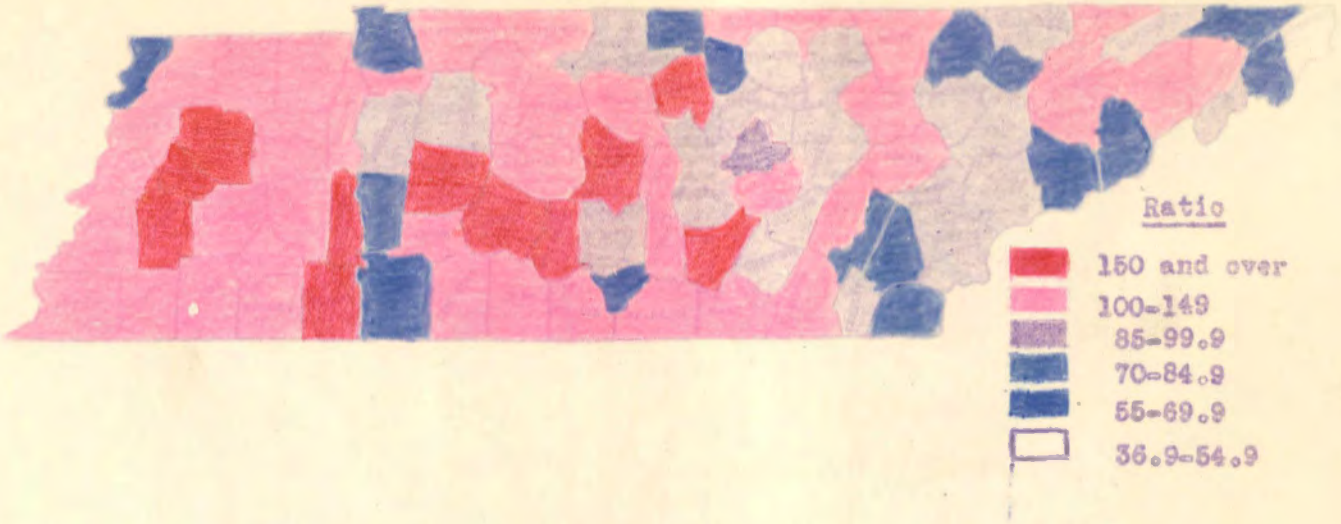
NUMBER OF COUNTIES FALLING WITHIN SPECIFIED ASSESSMENT RATIO GROUPS, BY VALUE OF PARCEL, IN TENNESSEE, 1930-33

Assessment Ratio	Value per Parcel		
	Under $1,000	$1,000 - $2,000	Over $2,000
Under 55	1	10	14
55 - 69.9	5	24	35
70 - 84.9	11	20	29
85 - 99.9	23	27	12
100 - 149.9	44	14	4
150 and over	11	0	0

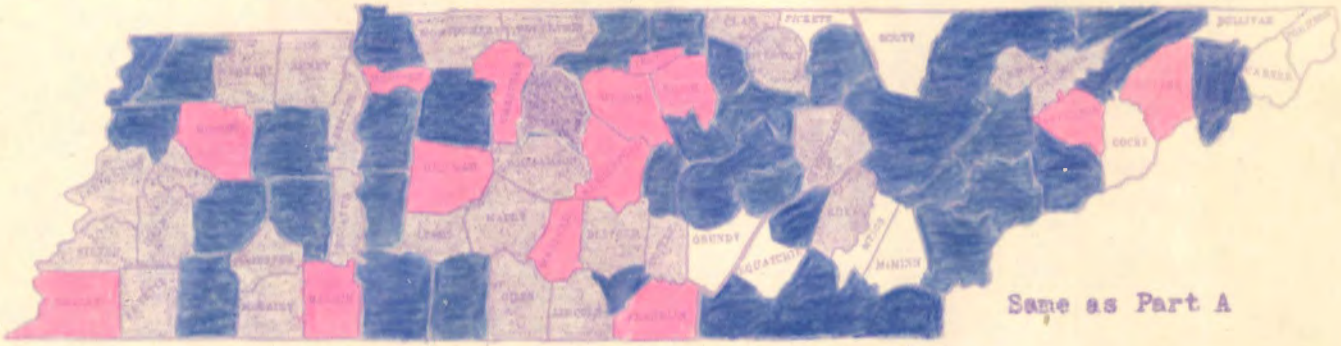
value per parcel increased, the number of counties in the lowest assessment ratio group increased from 1 to 10 to 14 in the three specified value groups. As the value per parcel increased, the number of counties in the highest assessment ratio group decreased from 11 in the lowest value group to zero in each of the other value groups. If the two highest assessment ratio groups are combined, the number of counties having ratios of 100 per cent and over decreases from 55 to 14 to 4 in the respective value groups.

Assessment ratios, by size groups, are shown for all Tennessee counties in Tables XXIX, XXX, and XXXI. The counties are ranked

A. Parcels Selling for Under $1,000



B. Parcels Selling for $1000-$2000



C. Parcels Selling for Over $2000

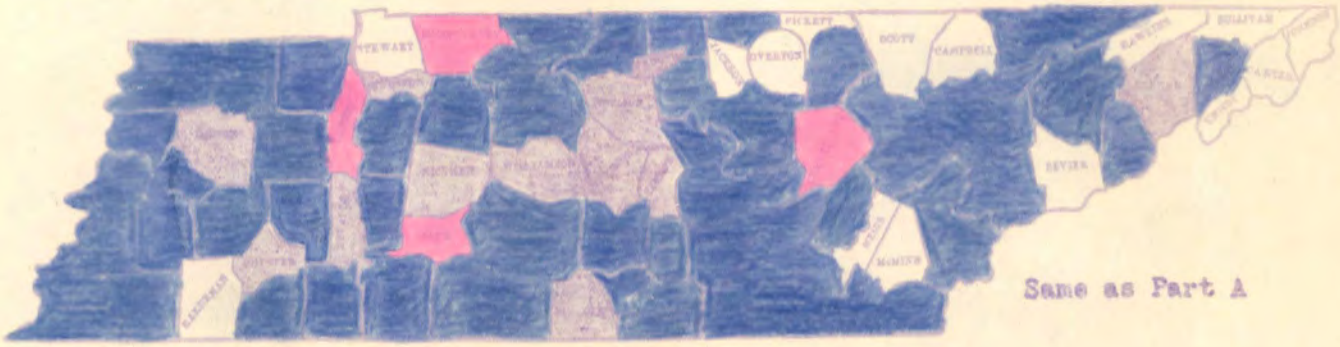


Fig. 24.- Ratios of Assessed Values to Sale Values of Farm Land and Buildings, By Value Groupings, in Tennessee Counties, 1930-33.

Based on Tables XXIX, XXX, and XXXI.

Table XXIX.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, PARCELS SELLING FOR UNDER $1,000, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Johnson	44.72	33	Blount	94.49	65	Hancock	114.48
2	Sevier	59.37	34	Overton	95.16	66	Davidson	116.35
3	Wayne	64.19	35	Trousdale	96.91	67	Cheatham	119.45
4	Jackson	64.84	36	Sequatchie	97.94	68	Washington	121.08
5	Lake	64.91	37	Loudon	98.06	69	Montgomery	121.90
6	Moore	68.54	38	White	99.15	70	Franklin	123.54
7	Stewart	71.57	39	Hawkins	99.44	71	Morgan	124.38
8	Campbell	72.15	40	DeKalb	99.70	72	Dyer	124.95
9	Sullivan	74.82	41	Williamson	100.56	73	Lincoln	125.38
10	Carter	75.39	42	Clay	102.15	74	Coffee	125.62
11	Meigs	76.24	43	Hamblen	102.69	75	Weakley	128.53
12	McMinn	76.47	44	Tipton	103.49	76	Lawrence	133.08
13	Cocke	78.05	45	Van Buren	103.99	77	Greene	136.52
14	Polk	79.17	46	Shelby	104.07	78	Robertson	137.40
15	Perry	79.66	47	Hardeman	104.25	79	Lewis	140.25
16	Union	81.57	48	Rhea	104.34	80	Jefferson	140.58
17	Macon	81.78	49	Hamilton	105.39	81	Madison	142.26
18	Bedford	85.34	50	Grainger	106.12	82	Fayette	145.65
19	Bledsoe	85.54	51	Henry	106.14	83	Benton	146.67
20	Monroe	86.61	52	Chester	106.78	84	Giles	147.99
21	Cumberland	88.59	53	Roane	106.83	85	Hardin	157.28
22	Anderson	88.62	54	Obion	107.95	86	Maury	157.75
23	Warren	88.90	55	Scott	108.10	87	Smith	160.52
24	Bradley	89.48	56	Cannon	108.56	88	Crockett	161.28
25	Humphreys	90.14	57	Pickett	109.95	89	Rutherford	162.47
26	Unicoi	91.16	58	Henderson	110.37	90	Decatur	162.82
27	Fentress	91.86	59	Houston	110.98	91	Hickman	171.35
28	Knox	92.09	60	Marion	111.41	92	Marshall	174.20
29	Sumner	92.21	61	Wilson	113.00	93	Haywood	180.28
30	Dickson	92.27	62	Lauderdale	113.03	94	Grundy	181.26
31	Claiborne	93.57	63	Carroll	113.48	95	Gibson	210.21
32	Putnam	93.70	64	McNairy	113.91			
							State Average	111.21

Table XXX.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, PARCELS SELLING FOR $1,000-$2,000, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Pickett	43.38	33	Marion	69.60	65	Chester	91.94
2	Johnson	47.55	34	Bradley	69.73	66	Crockett	92.13
3	Scott	50.00	35	Van Buren	71.56	67	Giles	92.92
4	Carter	50.47	36	Monroe	71.98	68	Lincoln	93.09
5	Sullivan	51.62	37	Perry	72.84	69	Montgomery	93.41
6	Cocke	53.03	38	Putnam	72.90	70	Davidson	93.98
7	McMinn	53.22	39	Hardeman	73.63	71	Weakley	94.85
8	Grundy	53.43	40	Sumner	74.04	72	Grainger	94.88
9	Sequatchie	54.33	41	Cannon	74.39	73	Decatur	96.27
10	Meigs	54.65	42	Knox	75.77	74	Benton	96.56
11	Anderson	55.00	43	Macon	75.82	75	Coffee	96.91
12	Stewart	55.65	44	Humphreys	77.32	76	Union	96.91
13	Sevier	55.78	45	Fentress	77.95	77	Williamson	97.66
14	Hamblen	56.43	46	Madison	78.75	78	Clay	97.69
15	Wayne	56.77	47	Loudon	79.92	79	Tipton	98.31
16	Jackson	57.93	48	Hancock	80.11	80	Haywood	98.98
17	Campbell	58.38	49	Dyer	81.18	81	Fayette	99.07
18	Polk	59.08	50	Blount	81.68	82	Franklin	100.53
19	Unicoi	60.26	51	Obion	82.21	83	Cheatham	100.75
20	Moore	62.55	52	Carroll	84.05	84	Greene	101.19
21	Dickson	63.88	53	Henderson	84.40	85	Jefferson	101.83
22	Roane	64.29	54	Lawrence	84.70	86	Smith	103.15
23	Warren	64.64	55	Cumberland	85.17	87	Wilson	103.81
24	Washington	64.98	56	Rhea	85.58	88	Houston	104.11
25	DeKalb	65.56	57	Lewis	86.40	89	Hickman	104.96
26	Hawkins	67.19	58	Robertson	86.59	90	Hardin	105.62
27	Morgan	67.41	59	Henry	87.48	91	Gibson	113.13
28	Hamilton	68.28	60	Bedford	87.71	92	Marshall	113.74
29	White	68.44	61	McNairy	87.91	93	Shelby	116.57
30	Bledsoe	68.56	62	Overton	89.17	94	Trousdale	122.36
31	Claiborne	69.31	63	Lauderdale	90.51	95	Rutherford	141.74
32	Lake	69.44	64	Maury	91.54			
							State Average	84.11

Table XXXI.

RATIOS OF ASSESSED VALUES TO SALE VALUES OF FARM REAL ESTATE, PARCELS SELLING FOR OVER $2,000, IN TENNESSEE COUNTIES, 1930-33

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Scott	No sales	33	Haywood	63.04	65	Humphreys	74.25
2	Unicoi	29.51	34	Hamilton	63.23	66	Shelby	74.35
3	Johnson	29.63	35	Perry	63.66	67	Putnam	74.71
4	Sullivan	37.71	36	Wayne	63.82	68	Monroe	74.84
5	Campbell	38.79	37	Cocke	64.33	69	Loudon	75.35
6	Stewart	42.79	38	Marion	65.00	70	Obion	75.56
7	Hawkins	45.06	39	Fentress	66.01	71	Lauderdale	75.64
8	McMinn	45.06	40	Henderson	66.31	72	Weakley	76.76
9	Jackson	47.18	41	Knox	66.79	73	Franklin	78.27
10	Pickett	47.25	42	Bradley	66.99	74	Smith	79.21
11	Sevier	49.06	43	Dyer	67.43	75	Jefferson	79.56
12	Overton	50.12	44	Henry	67.65	76	Marshall	80.58
13	Hardeman	51.59	45	Bedford	68.46	77	Lake	80.78
14	Carter	51.65	46	Roane	68.70	78	Grainger	81.62
15	Meigs	54.92	47	Clay	68.92	79	Lawrence	82.61
16	Macon	55.19	48	Bledsoe	69.08	80	Williamson	86.38
17	Dickson	55.59	49	Grundy	69.15	81	Rutherford	88.16
18	Blount	56.26	50	Morgan	69.85	82	Wilson	88.72
19	Polk	56.72	51	McNairy	70.00	83	Greene	88.85
20	Claiborne	56.95	52	White	70.20	84	Decatur	91.40
21	Anderson	57.69	53	Rhea	70.40	85	Cannon	92.20
22	DeKalb	58.48	54	Maury	70.65	86	Houston	93.00
23	Warren	59.09	55	Coffee	70.69	87	Chester	93.16
24	Hardin	59.26	56	Tipton	70.70	88	Gibson	94.35
25	Moore	60.30	57	Fayette	70.98	89	Lincoln	95.33
26	Van Buren	60.38	58	Madison	72.03	90	Hickman	96.80
27	Sequatchie	60.84	59	Hamblen	72.35	91	Trousdale	98.71
28	Washington	60.95	60	Carroll	72.78	92	Montgomery	101.60
29	Union	61.19	61	Giles	72.80	93	Benton	104.36
30	Crockett	62.17	62	Robertson	72.95	94	Lewis	117.46
31	Sumner	62.33	63	Cheatham	73.15	95	Cumberland	129.91
32	Hancock	62.93	64	Davidson	73.94			
							State Average	71.53

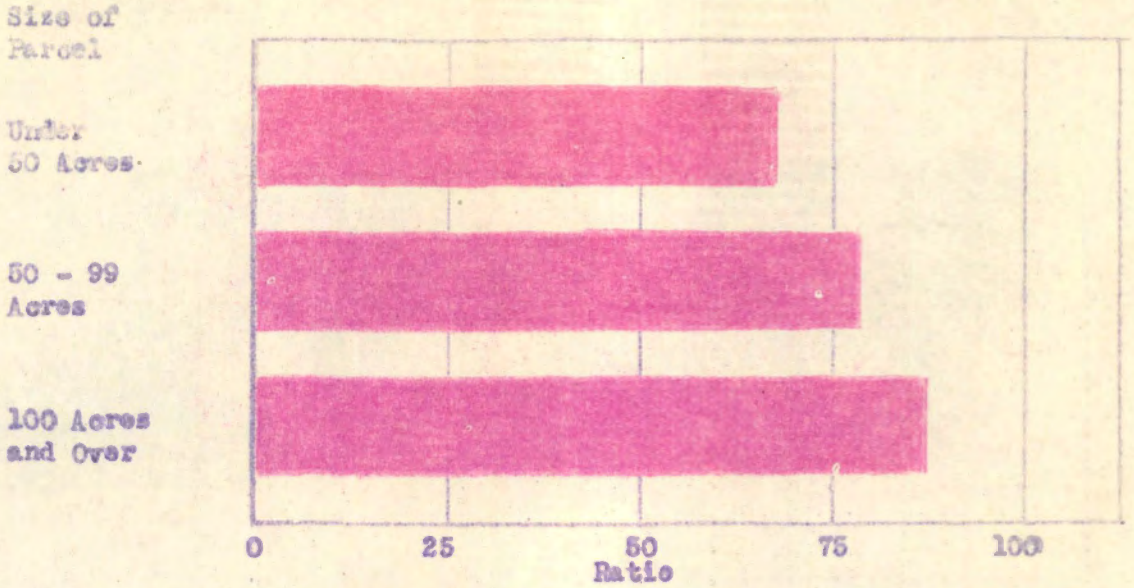


Fig. 25. Ratios of Assessed Values to Sale Values of Farm Real Estate in Tennessee, By Acreage Groups, 1930-33

Based on Table XXXIII.

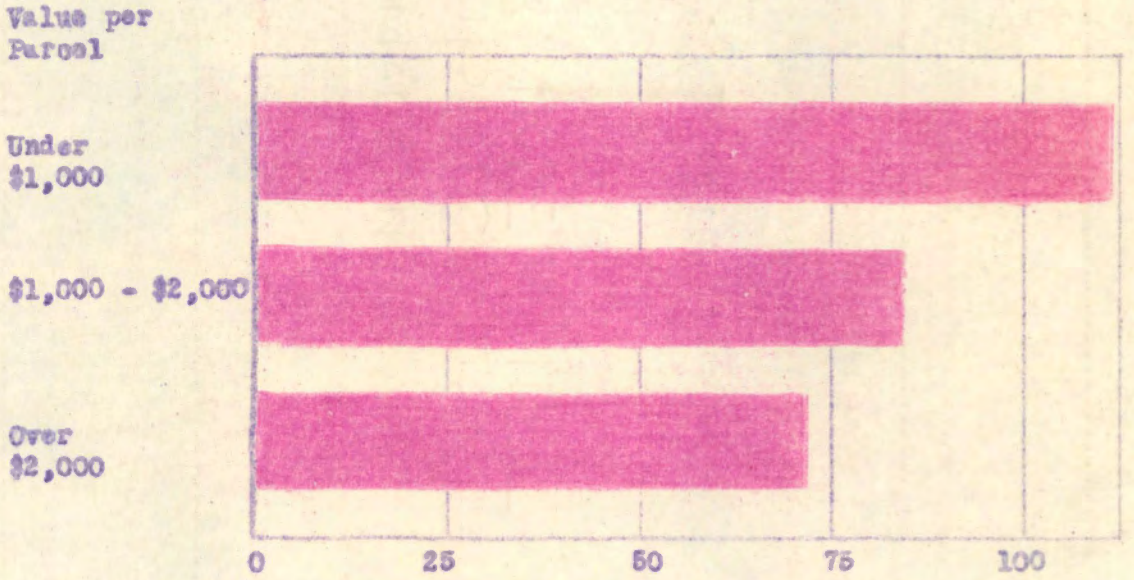


Fig. 26. Ratios of Assessed Values to Sale Values of Farm Real Estate in Tennessee, By Value Groups, 1930-33

Based on Table XXXIII.

from low to high. In the group of parcels selling for under $1,000, assessment ratios ranged from 44.72 per cent in Johnson County to 210.21 per cent in Gibson County. The state average for the group was 111.21 per cent. Ratios ranged from 43.38 per cent in Pickett County to 141.74 per cent in Rutherford County in the group of parcels selling for $1,000 to $2,000. The state average for this group was 84.11 per cent. In the group of parcels selling for over $2,000 ratios ranged from 29.51 per cent in Unicoi County to 129.91 per cent in Cumberland County. The state average for the highest value group was 71.53 per cent.

A more clear presentation of the ratios of assessed values to sale values, by value groups, in Tennessee is given in Fig. 26. It is clearly evident that as the value per parcel increases, the ratio of assessment decreases. As in the case of size groups, individual counties present many variations from this relationship.

Reconciliation of Differences Between Assessment Ratios By Size Groups and Value Groups

It is normally expected that the value per parcel of farm real estate increases as the number of acres per parcel increases, although not necessarily in the same proportion. This being true, the data presented in Figs. 25 and 26, assessment ratios by size groups and value groups, appear to be contradictory. The ratio of assessment increases as the number of acres per parcel increases, and decreases as the value per parcel increases. Further analyses of the data will be made in an attempt to find an explanation for the seemingly contradictory situation mentioned above.

Number of Acres per Parcel and Value per Parcel. The average number of acres per parcel and average value per parcel of farm real estate sold in Tennessee, by size groups and value groups, are shown in Table XXXII. The number of acres per parcel and value per parcel are very dissimilar in corresponding divisions of size and value groups; that is, parcels of under 50 acres are not similar in size or value to parcels selling for under $1,000 and parcels of 100 acres and over are not similar to parcels selling for over $2,000. The average size of parcels selling for under $1,000 is almost double the average size of parcels of under 50 acres. The average value of parcels selling for under $1,000 is slightly less than one-half the average value of parcels of under 50 acres. The same relationship

Table XXXII.

NUMBER OF ACRES PER PARCEL AND VALUE PER PARCEL OF FARM REAL ESTATE SOLD IN TENNESSEE, BY SIZE AND VALUE GROUPS, 1930-33

Group and Division	Acres per Parcel	Value per Parcel
Size group:		
Under 50 acres	21.75	$ 861
50 - 99 acres	69.08	1,591
100 acres and over	186.22	5,509
Value group:		
Under $1,000	41.21	421
$1,000 - $2,000	71.78	1,379
Over $2,000	133.67	4,631
State Average	69.60	$1,640

exists between the middle size group and the middle value group as between the two low groups, but the differences are quite small in the case of the middle groups. The relationship is reversed in the

high groups. The average size of parcels selling for over $2,000 is considerably less than the average size of parcels of 100 acres and over, while the average value of parcels selling for over $2,000 is considerably more than the average value of parcels of 100 acres and over.

Although the relationships between corresponding divisions of the two groups are somewhat varied, the value per parcel increases as the number of acres per parcel increases, in both groups. These varied relationships point the way toward an explanation of the contradictory situation illustrated in Figs. 25 and 26. The data presented in Table XXXII indicate that the grade of land varies greatly in the different divisions of size and value groups.

Average Value per Acre. Average value per acre and ratios of assessed values to sale values of farm real estate sold in Tennessee, by size and value groups, are shown in Table XXXIII. Average value per acre decreases as the size of parcel increases, and increases as the value per parcel increases (Fig. 27). The small parcels, under 50 acres, have a higher value per acre than any other group. The large parcels, 100 acres and over, have a lower value per acre than any other size group. Parcels selling for under $1,000 have a lower value per acre than any other group. Parcels selling for over $2,000 have a higher value per acre than any other value group.

In general, the smaller parcels are made up of relatively high priced (per acre) real estate, and the larger parcels are made up of relatively low priced real estate. The parcels in the low value group are made up of very low priced real estate, while the parcels in the high value group are made up of relatively high priced real estate.

Table XXXIII.

AVERAGE VALUE PER ACRE AND ASSESSMENT RATIOS OF FARM REAL ESTATE SOLD IN TENNESSEE, BY SIZE AND VALUE GROUPS, 1930-33

Group and Division	Value per Acre	Assessment Ratio
Size group:		
Under 50 acres	$39.61	67.92
50 - 99 acres	23.04	78.41
100 acres and over	18.84	86.66
Value group:		
Under $1,000	10.22	111.21
$1,000 - $2,000	19.22	84.11
Over $2,000	34.65	71.53
State Average	$ 23.56	79.48

When Figs. 25, 26, and 27 are studied as a unit, it is revealed that the relationship between ratio of assessment and average value per acre is practically the same by size groups as by value groups. By size groups and by value groups, the ratio of assessment increases as the value per acre decreases, or decreases as the value per acre increases. The ratio is higher in the value group having the lowest priced real estate than in the size group having the lowest priced real estate, because the value per acre is considerably lower in the value group. The ratio is lower in the size group having the highest priced real estate than in the value group having the highest priced real estate, since the value per acre is higher in the size group.

There is a tendency to over assess low priced land, as compared with the assessment on high priced land. This tendency prevails throughout the state, with the exception of a few counties.

A study in the ratios of assessed values to sale values of real property in Oregon revealed the same situation. It was found that there

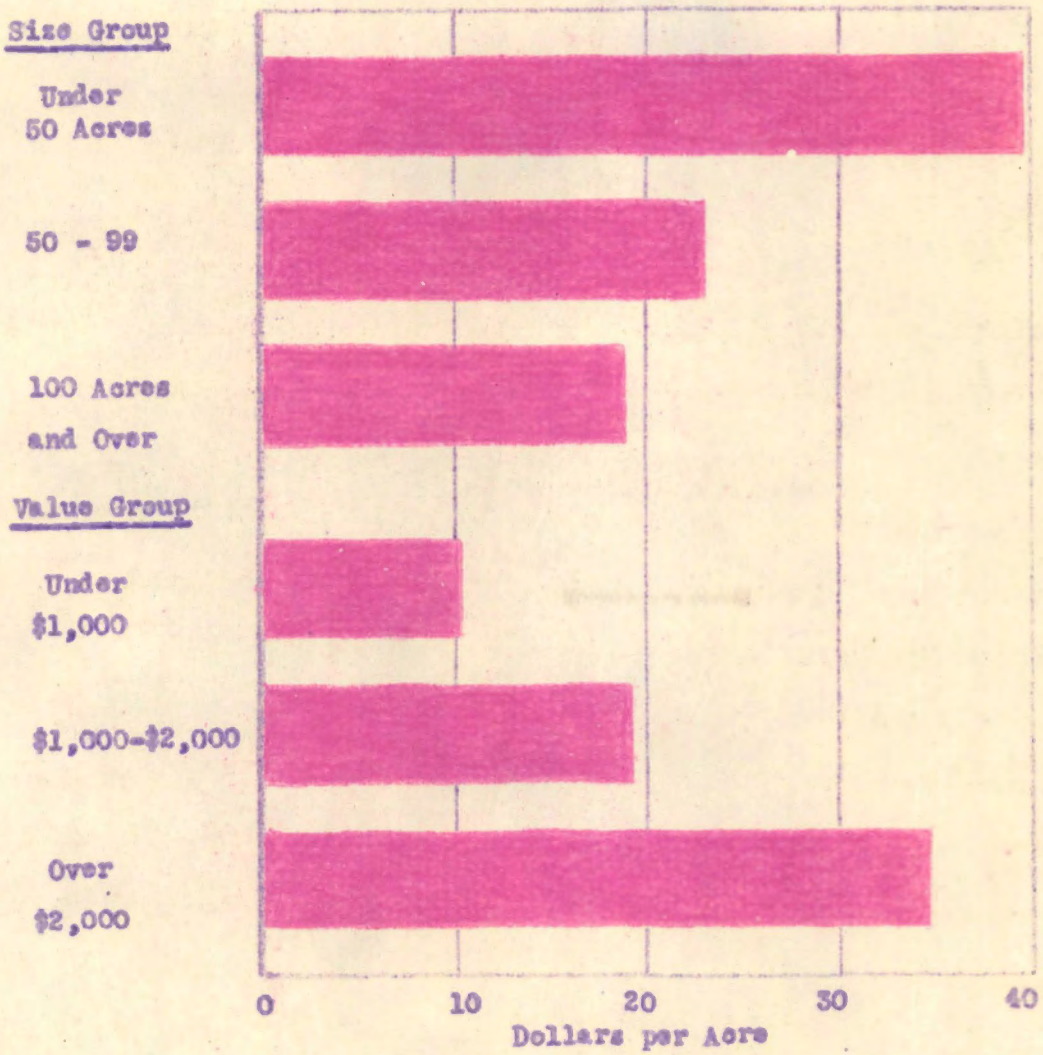


Fig. 27. Average Value per Acre of Farm Real Estate Sold in Tennessee, by Size and Value Groups, 1930-33

Based on Table XXXIII.

was a strong tendency to assess more highly the properties in the lower value groups than in the higher value groups.(2) This tendency was particularly strong in counties where values were lowest.

Representativeness of the Results Obtained

The Period Studied. Assessment ratios are not constant from year to year in any given area. The assessors purposely change the ratios in some cases, while in other cases changes may be due to an increase or decrease in real estate values accompanied by no alterations of assessments. The four-year period 1930-33 was used in calculating the assessment ratios in the foregoing study. Four years were used in order to obtain samples large enough to warrant the drawing of conclusions regarding individual counties, in case information should be desired for any particular county or counties. It is recognized that changes in ratios of assessment have not been uniform in the counties of the state. Since the object of this study was to show the relation of sale values to assessed values in the counties and other areas of the state, it was believed that the data used were sufficiently representative to show the relative situation. Data were not available for a period of sufficient length to warrant a study of trends of assessment ratios.

Number of Parcels and Number of Acres. The foregoing study of assessment ratios was based on 26,512 voluntary sales, involving 1,845,227 acres of farm land with an aggregate sales value of $43,482,660.

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(2) Dreesen, W. H., A Study in the Ratios of Assessed Values to Sale Values of Real Property in Oregon, p. 13.

The percentage distribution of number of parcels, acres, and value is shown by size and value groups in Table XXXIV. Over one-half of the parcels were in the low division, both in the size grouping and in the

Table XXXIV.

PERCENTAGE DISTRIBUTION OF PARCELS, ACRES, AND VALUE OF FARM REAL ESTATE SOLD IN TENNESSEE, BY SIZE AND VALUE GROUPS, 1930-33

Group and Division	Per Cent of Total			
	Number of Parcels	Number of Acres	Sale Valuation	Assessed Valuation
Size group:				
Under 50 acres	52.07	16.04	27.36	23.38
50-99 acres	25.59	25.04	24.83	24.50
100 acres and over	22.33	58.91	47.80	52.11
Value group:				
Under $1,000	53.51	31.39	13.70	19.20
$1,000 - $2,000	22.61	23.12	18.98	20.11
Over $2,000	23.88	45.48	67.31	60.67

value grouping. The parcels were about evenly distributed in the other divisions of both size and value groups. Over 50 per cent of the acres were in the high acreage group, and slightly less than 50 per cent of the acres were in the upper value group.

The fact that a large percentage of the parcels were in the low size and value groups is illustrated in Table XXXV, which shows the distribution of parcels sold, by size and value groups, in Overton County. The relationship between assessment ratios in the different size and value groups in Overton County was similar to the relationship between ratios in corresponding size and value groups for the state, as a whole. Over 50 per cent of the parcels consist of less than 50 acres each and are valued at less than $1,000 per parcel. A larger percentage of the parcels fall within the low value group than within the low size group.

Table XXXV.

DISTRIBUTION OF PARCELS OF FARM REAL ESTATE SOLD IN OVERTON COUNTY, BY SIZE AND VALUE GROUPS, 1930-33

Value Group	Size Group			Total
	Under 50 Acres	50-99 Acres	100 Acres and Over	
Under $1,000	188	62	31	281
$1,000 - $2,000	4	19	20	43
Over $2,000	3	5	14	22
Total	195	86	65	346

Chapter VI.

TRENDS OF FARM REAL ESTATE VALUES IN TENNESSEE

Importance of Farm Real Estate Values

The subject of farm real estate values is intimately intertwined with the economic and social welfare of farm people, and even with the financial structure of the nation. Valuations placed on farm lands and buildings have practical importance in that they affect the relations which owners have or may have with various individuals and corporate bodies. These include buyers and prospective buyers of farms and rural dwellings and home sites; creditors; tenants; governmental agencies and public utilities acquiring farm real estate by condemnation proceedings, and these or others settling for damages done to farm realty; insurance and loan agencies; governmental agencies and drainage, irrigation, levee, and other improvement districts levying taxes and assessments upon farm real estate; and persons who obtain rights to develop subsurface or other not strictly agricultural uses of land of which the surface uses are agricultural.

The significance of valuations in relations that involve the private owners of the realty may be matched by their significance in relations where public interest is paramount. Facts as to local farm realty valuations are pertinent in determining locations for and in constructing public highways, in establishing national, state, and other public forests, parks, areas for recreation and wild-life preservation, and in developing other publicly approved real estate improvement projects. The taxing activity of state and local governments has given impetus to an increasing

public interest in farm real estate valuations. Forfeiture of numerous tracts for nonpayment of taxes has given a new edge to public interest in real estate and its valuation because of the necessity of forming policies with respect to areas no longer under private ownership.

Many farm land purchases are financed to a very considerable degree by credit, in the expectation that the debt will be paid out of the future earnings of the land. For this reason, a mistake in estimating future land-value trends may overshadow the entire life of a farm purchaser, bringing failure and discouragement to the farmer and serious hardship to his family. Similar mistakes on the part of creditors financing farm purchases may result in failing or embarrassed banks and loan companies.

Farmers and persons who intend to farm have an interest in the question of when to buy farm land most advantageously. There is no simple rule as to when to buy land which can be arbitrarily followed. One needs to study various price relationships in deciding on this question, since it is usually unsafe to guess at the time to buy. Factors affecting farm real estate values will be considered in a later chapter. Before attempting an analysis of these factors it should prove very helpful to study the trend of land values in the past.

Comparison of Movements of Values in Tennessee and The United States, By Geographic Divisions: 1880 - 1930

There is a very wide variation in average value per acre of farm land and buildings in the states of the United States, as shown in Fig. 28. The average value per acre in the highest ranking state, $169.99 in

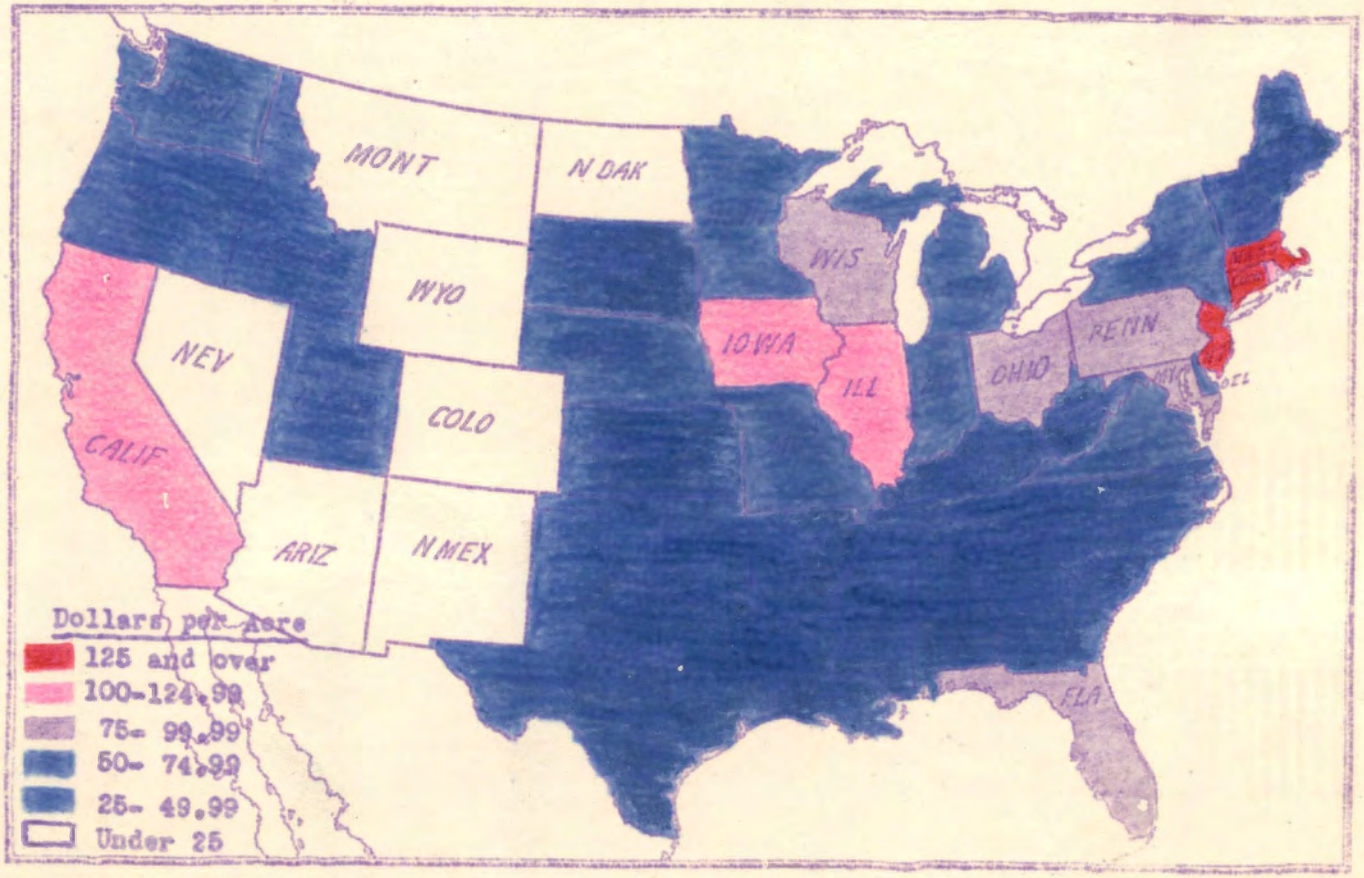


Fig. 28.- Average Value per Acre of Farm Land and Buildings in the United States, By States, 1930.

Based on Table XXXVI.

New Jersey, is over twenty-five times the average value per acre in the lowest ranking state, $6.74 in New Mexico (Table XXXVI). The average value per acre in the highest ranking geographic division,

Table XXXVI.

AVERAGE VALUE PER ACRE OF FARM LAND AND BUILDINGS IN THE UNITED STATES, BY STATES, 1930

Rank	State	Average Value Per Acre	Rank	State	Average Value Per Acre
1	New Jersey	$169.99	25	Louisiana	$44.70
2	Connecticut	151.38	26	Kentucky	43.73
3	Massachusetts	130.26	27	Maine	41.87
4	Iowa	124.18	28	Tennessee	41.28
5	Rhode Island	123.52	29	New Hampshire	39.47
6	California	112.33	30	Utah	39.41
7	Illinois	108.68	31	West Virginia	38.85
8	Florida	84.22	32	Oregon	38.12
9	Maryland	81.42	33	Vermont	37.46
10	Wisconsin	79.16	34	Oklahoma	36.78
11	Ohio	78.69	35	South Carolina	36.48
12	Pennsylvania	78.58	36	South Dakota	35.24
13	Deleware	74.31	37	Arkansas	34.13
14	New York	73.19	38	Mississippi	32.79
15	Indiana	71.90	39	Texas	28.85
16	Minnesota	68.74	40	Alabama	28.62
17	Michigan	67.80	41	Georgia	26.15
18	Washington	57.17	42	North Dakota	24.61
19	Nebraska	55.81	43	Colorado	21.79
20	Missouri	53.23	44	Arizona	17.50
21	Virginia	51.16	45	Nevada	15.71
22	Idaho	44.64	46	Montana	11.81
23	Kansas	48.56	47	Wyoming	8.79
24	North Carolina	46.75	48	New Mexico	6.74
				U. S. Average	$48.52

Source: Fifteenth Census of the United States: 1930; Agriculture, Vol. IV, General Report.

$84.20 in the East North Central States, is over five times the average value per acre in the lowest ranking geographic division, $15.61 in the Mountain States (Table XXXVII). The average value per acre for the

United States as a whole is $48.52.

Tennessee ranks 28th with an average value per acre of $41.28, which is 14.9 per cent below the United States average. The East South Central States, with an average value per acre of $36.88, rank

Table XXXVII.

AVERAGE VALUE PER ACRE OF FARM LAND AND BUILDINGS IN THE UNITED STATES, BY GEOGRAPHIC DIVISIONS: 1880-1930

	1930	1925	1920	1910	1900	1890	1880
United States	$48.52	$53.51	$69.38	$39.60	$19.81	$21.31	$19.02
Tennessee	41.28	42.14	52.53	23.98	13.03	12.04	10.00
Division:							
East North Central	84.20	97.76	126.87	75.25	42.23	38.77	34.31
Middle Atlantic	80.40	74.68	73.99	56.56	43.45	47.68	47.80
Pacific	79.70	82.85	83.16	48.28	20.17	27.57	14.98
New England	65.86	57.10	54.00	36.45	25.71	24.78	27.03
West North Central	57.10	66.63	95.22	49.92	23.14	19.68	14.83
South Atlantic	44.60	46.27	53.20	23.96	11.57	11.34	8.79
East South Central	36.88	35.13	46.44	21.32	11.49	10.47	8.82
West South Central	31.57	30.05	36.27	18.50	6.45	7.91	5.36
Mountain	15.61	16.50	26.96	22.16	7.30	13.45	14.61

Source: Fifteenth Census of the United States: 1930; Agriculture, Vol. IV, General Report.

7th among the nine geographic divisions. The average value in Tennessee is 11.9 per cent higher than the average in the four East South Central States. Kentucky, with an average value per acre of $43.73, ranks slightly higher than Tennessee. Mississippi and Alabama rank lower with average values of $32.79 and $28.62 respectively.

The highest valued farm real estate is found in New Jersey and the three southernmost states of the New England division, in the corn belt states of Iowa and Illinois, and in California. The lowest valued farm real estate is found in the Mountain States. The lowest ranking

states are New Mexico, Wyoming, Montana, Nevada, and Arizona, in the order named.

The trend of average values of farm land and buildings in the United States, by geographic divisions, and in Tennessee, by census periods, from 1880 to 1930, is shown in Fig. 29. The general trend of values has been the same in Tennessee as in the United States; however, the percentage changes have been considerably different. Values in the United States increased during each ten-year period, from 1880 to 1920, with the exception of a minor decrease during the period 1890-1900. Values in Tennessee increased during each ten-year period from 1890 to 1920. The percentage increase was much greater in Tennessee than in the United States during this period. From 1920 to 1925 there was a rather sharp decline in values both in Tennessee and in the United States, the decline being more pronounced in the United States. There was a continued decline in values during the period 1925-1930, although the descent was less rapid than during the preceding five-year period. The movement of values in the East South Central States was very similar to the movement in Tennessee until 1925. During the period 1925-1930 values increased 5 per cent in the East South Central division, while Tennessee values decreased 2 per cent.

There has been an increase in the average value per acre of farm land and buildings during every ten-year period from 1880 to 1930 in only two geographic divisions, namely, the New England and the Middle Atlantic divisions. In these two divisions, as in all of the other geographic divisions, the most rapid rise in values occurred between

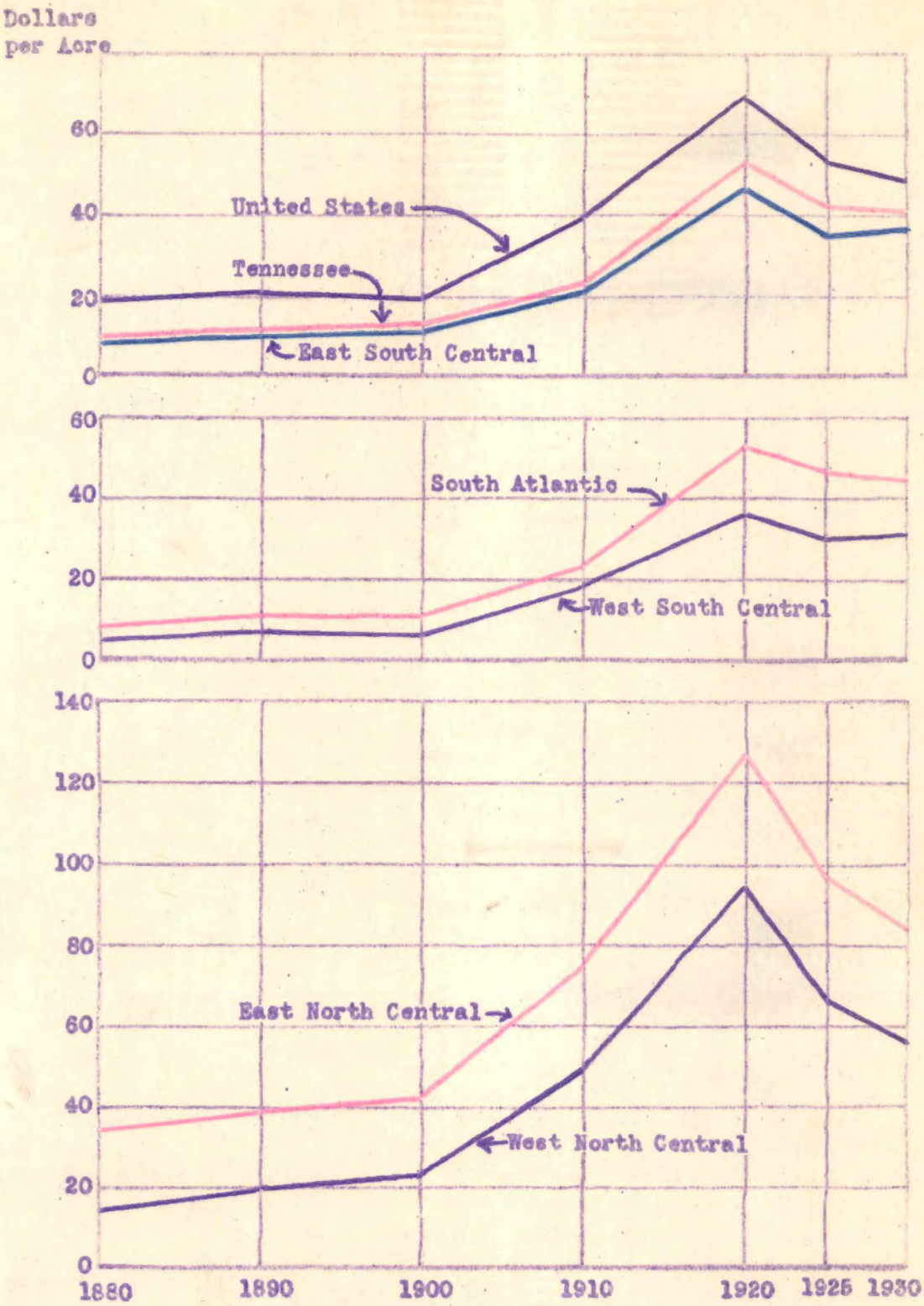


Fig. 29. - Average Value per Acre of Farm Land and Buildings in the United States, by Geographic Divisions, 1880-1930.
(Continued)

Based on Table XXXVII.

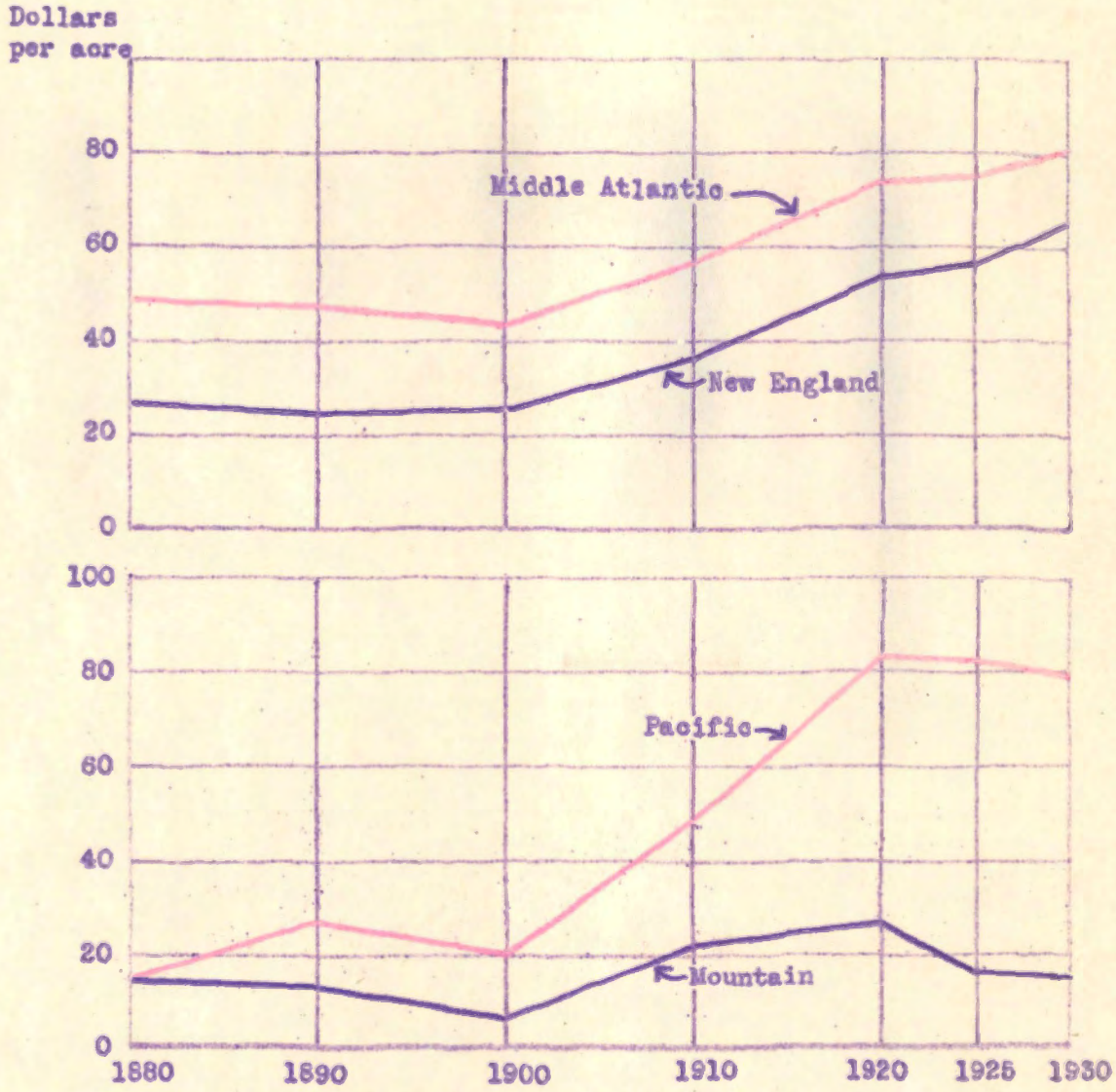


Fig. 29. - Average Value per Acre of Farm Land and Buildings in the United States, by Geographic Divisions, 1880-1930 (continued)

Based on Table XXXVII.

1900 and 1920. The increase in value was also quite pronounced in the New England and Middle Atlantic divisions from 1925 to 1930.

Throughout the period 1880-1930 changes in the value of farm land and buildings have been more noticeable in the North Central States than in any other section of the country due to the higher average values prevailing there. The absolute amount of increase in average value per acre up to 1920 was considerably higher in the North Central States than in other divisions, and the absolute amount of decrease since 1920 has been correspondingly higher. This should not be confused with percentage changes, which have been as great or greater in some other sections. A study of index numbers of estimated value per acre, published annually by the United States Department of Agriculture,(1) reveals that the percentage rise in values was highest in the East South Central and South Atlantic States. Considering 1912-14 values as 100 per cent, index numbers of values in the South Atlantic and East South Central divisions were 198 and 199 respectively in 1920. In the same year, index numbers of values in the East North Central and the West North Central divisions were 161 and 184 respectively. The Middle Atlantic division was the lowest in 1920, having climbed to only 121 per cent of the 1912-14 average. The index number for the United States in 1920 was 170. Tennessee values in 1920 were 200 per cent of the 1912-14 values. Only seven states had higher index numbers than Tennessee in 1920. They were: South Carolina, North Carolina, Arkansas, Mississippi, Georgia, Iowa and Minnesota. The Kentucky figure was the same as that

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(1) Stauber, B. R., and Regan, M. M., The Farm Real Estate Situation, 1933-34, pp. 7-9.

for Tennessee, 200 per cent. It is interesting to note that the five highest states in 1920, on a percentage increase basis, were Southern states, and nine of the eleven highest states were Southern states. The increased profitableness of cotton growing during the years immediately preceding 1920 was probably responsible for a large part of the increase in farm real estate values in the South. Index numbers of values have not declined to so low a point in the Southern group of states as in the North Central group since 1920.

Movements of Values in Tennessee Counties, by Census Periods: 1900-1930

The movement of farm real estate values in Tennessee counties since 1900 has been far from uniform. Values have increased in some counties while decreasing in others. The rate of increase or decrease in values has shown great variation during the different census periods.

The percentage increase or decrease in value of farm land and buildings per acre in Tennessee counties, by census periods since 1900, is illustrated in Figs. 30 and 31. The counties are ranked from high to low in Tables XXXVIII to XLII. Absence of a sign before a percentage denotes an increase in value. A minus sign denotes a decrease in value.

From 1900 to 1910, value of farm land and buildings per acre in Tennessee increased 84 per cent (Table XXXVIII). The percentage increase ranged from 21 per cent in Meigs County to 266 per cent in Clay County. Values increased over 100 per cent in 23 counties. Increases of less than 50 per cent occurred in 11 counties. The increases occurred in a rather haphazard manner — that is, there was little tendency for

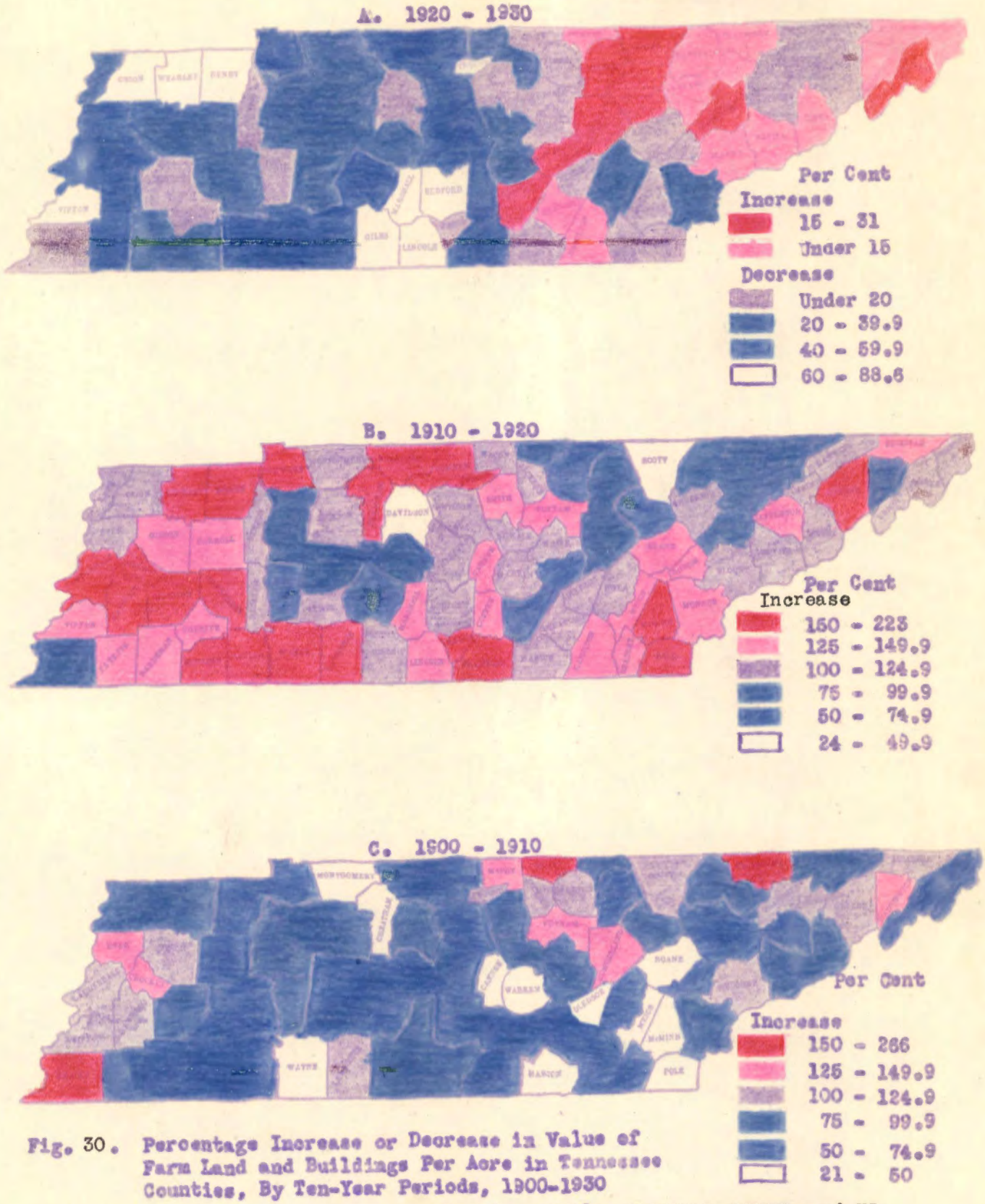
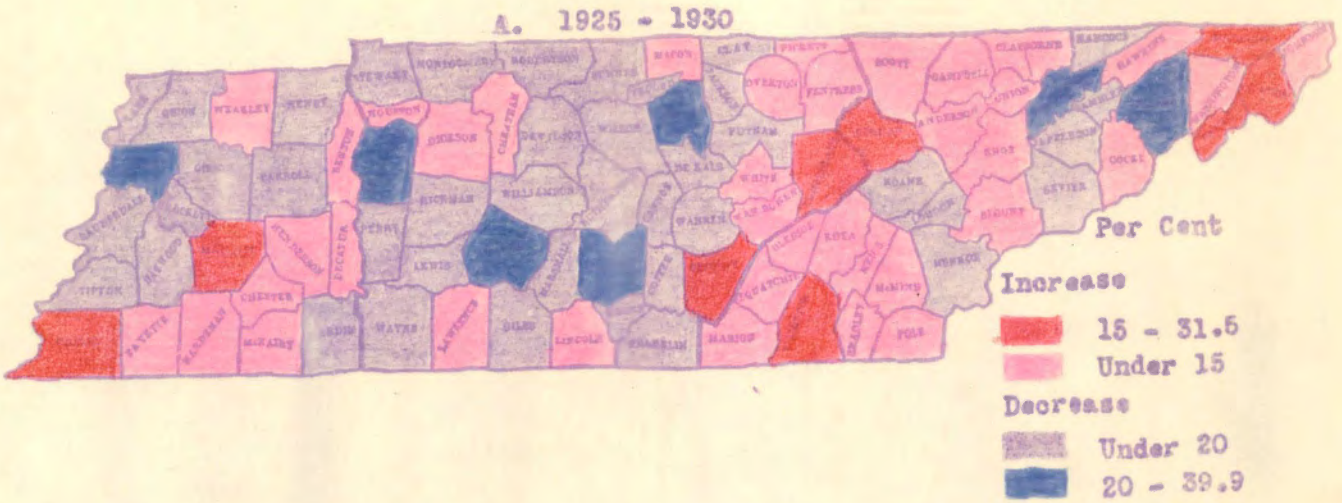


Fig. 30. Percentage Increase or Decrease in Value of Farm Land and Buildings Per Acre in Tennessee Counties, By Ten-Year Periods, 1900-1930

Based on Tables XXXVIII, XXXIX, and XL.



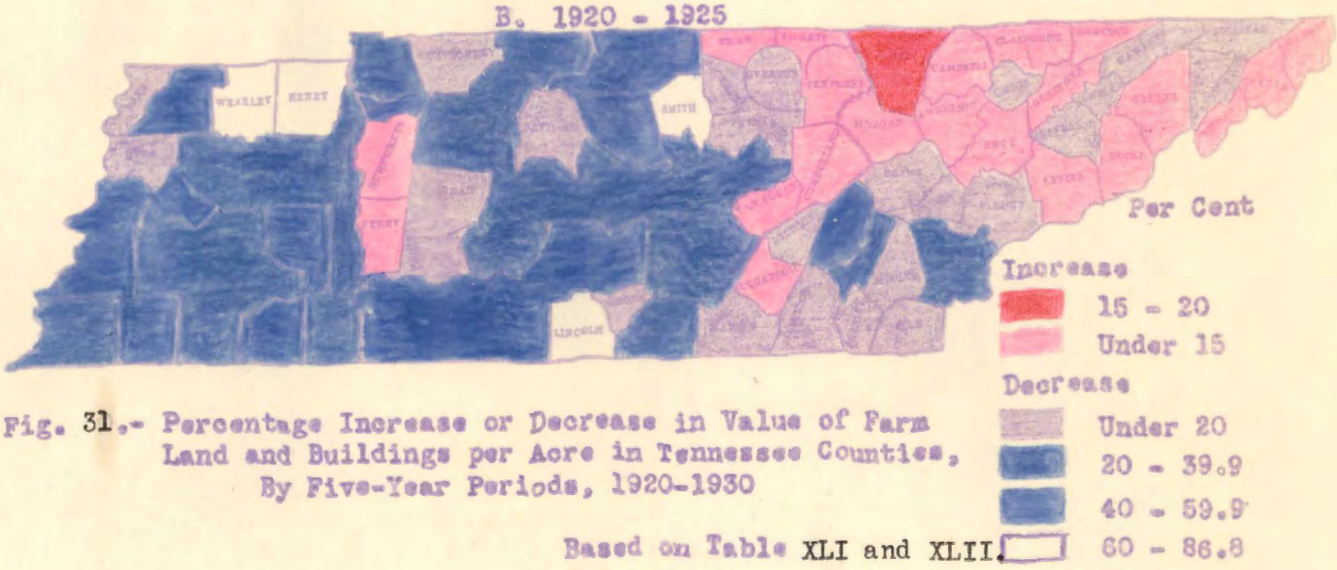


Fig. 31.- Percentage Increase or Decrease in Value of Farm Land and Buildings per Acre in Tennessee Counties, By Five-Year Periods, 1920-1930

Based on Table XLI and XLII.

Table XXXVIII.

PERCENTAGE INCREASE IN VALUE OF FARM LAND AND BUILDINGS PER ACRE, TENNESSEE COUNTIES, 1900-1910

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Clay	266.0	33	Hawkins	89.4	65	Williamson	66.3
2	Shelby	211.3	34	Humphreys	88.0	66	Fentress	65.8
3	Claiborne	158.8	35	Cocke	87.2	67	Henderson	65.5
4	Washington	143.2	36	Morgan	87.1	68	Bradley	62.6
5	Dyer	140.2	37	Sevier	86.0	69	Chester	62.6
6	Putnam	134.9	38	Lake	83.2	70	Hardeman	61.9
7	Crockett	133.0	39	Pickett	81.9	71	Franklin	61.8
8	Cumberland	127.9	40	Davidson	80.1	72	Coffee	60.5
9	Macon	127.8	41	Hancock	79.0	73	Bedford	59.3
10	Sullivan	124.4	42	Campbell	78.8	74	Decatur	58.9
11	Lawrence	122.6	43	Van Buren	78.7	75	Henry	58.1
12	Tipton	122.4	44	Giles	77.0	76	Robertson	57.9
13	Lauderdale	121.9	45	Dickson	76.8	77	Hamilton	56.1
14	Overton	120.8	46	Weakley	75.9	78	Lewis	55.1
15	Hamblen	113.4	47	Perry	75.8	79	Hardin	54.8
16	Haywood	111.0	48	Moore	75.3	80	Sequatchie	53.3
17	Scott	108.9	49	Marshall	75.3	81	McNairy	53.2
18	Jackson	108.0	50	Benton	75.1	82	Anderson	51.9
19	Gibson	107.6	51	Sumner	74.6	83	Hickman	51.6
20	Greene	106.7	52	Fayette	73.2	84	Loudon	51.2
21	Trousdale	104.5	53	Rutherford	72.2	85	Polk	48.9
22	Grainger	103.0	54	Johnson	72.0	86	Warren	44.8
23	Blount	101.7	55	Wilson	72.0	87	Marion	43.8
24	Monroe	99.1	56	Maury	70.9	88	McMinn	42.6
25	Union	98.8	57	Stewart	70.8	89	Cannon	41.4
26	Smith	97.8	58	Knox	69.1	90	Wayne	39.5
27	Houston	97.1	59	Rhea	69.1	91	Cheatham	38.9
28	Madison	96.1	60	Carter	68.2	92	Roane	36.0
29	DeKalb	94.2	61	Unicoi	67.4	93	Montgomery	35.1
30	Obion	93.7	62	Jefferson	67.2	94	Bledsoe	30.9
31	Lincoln	92.1	63	Grundy	67.2	95	Meigs	21.0
32	White	90.2	64	Carroll	67.1			
							State Average	84.0

Source: United States Bureau of the Census, Thirteenth Census of the United States: 1910, Agriculture - Tennessee, Table I.

Table XXXIX.

PERCENTAGE INCREASE IN VALUE OF FARM LAND AND BUILDINGS PER ACRE, TENNESSEE COUNTIES, 1910-1920

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Lawrence	222.9	33	Hardeman	129.9	65	Decatur	107.3
2	Wayne	202.4	34	Marshall	129.4	66	Benton	104.3
3	McNairy	196.8	35	Coffee	128.0	67	Jackson	104.3
4	Franklin	192.0	36	Sullivan	127.9	68	Anderson	103.2
5	Henry	191.0	37	Roane	127.1	69	Dickson	102.3
6	Polk	190.4	38	Bradley	126.8	70	Unicoi	101.0
7	Henderson	182.4	39	Jefferson	126.8	71	Sequatchie	100.2
8	Weakley	177.0	40	Monroe	125.8	72	Knox	95.8
9	Trousdale	171.5	41	Putnam	125.6	73	Washington	94.6
10	Hardin	169.0	42	Blount	124.6	74	Williamson	94.4
11	Sumner	167.6	43	Lake	122.7	75	Humphreys	93.6
12	Haywood	166.8	44	Warren	122.6	76	Union	90.1
13	Crockett	164.9	45	Macon	122.0	77	Hickman	89.4
14	Lauderdale	164.6	46	Dyer	121.2	78	Campbell	87.2
15	Madison	163.6	47	Lewis	119.1	79	Houston	81.8
16	Stewart	162.8	48	Rutherford	118.6	80	Hancock	81.2
17	Robertson	160.9	49	Giles	118.3	81	Claiborne	80.8
18	McMinn	158.5	50	Sevier	117.5	82	Clay	78.7
19	Moore	156.5	51	Hamblen	117.0	83	Fentress	78.4
20	Cheatham	156.2	52	Bledsoe	116.9	84	Shelby	77.9
21	Greene	150.0	53	DeKalb	115.9	85	Grainger	76.1
22	Smith	149.5	54	Cocke	114.7	86	Cumberland	75.4
23	Fayette	148.5	55	Marion	114.6	87	Perry	74.8
24	Carroll	148.0	56	Hawkins	114.5	88	Maury	70.4
25	Chester	142.9	57	Rhea	113.1	89	Pickett	68.3
26	Lincoln	138.7	58	Obion	112.3	90	Morgan	68.1
27	Gibson	138.3	59	Johnson	111.5	91	Grundy	66.8
28	Cannon	134.1	60	Wilson	110.9	92	Overton	62.9
29	Loudon	133.1	61	Carter	110.3	93	Van Buren	55.3
30	Meigs	132.1	62	Montgomery	109.8	94	Davidson	49.8
31	Hamilton	130.5	63	White	109.7	95	Scott	24.3
32	Tipton	130.5	64	Bedford	108.4			
							State Average	119.05

Source: United States Bureau of the Census, Fourteenth Census of the United States: 1920, Agriculture - Tennessee, Table I.

Table XL.

PERCENTAGE INCREASE OR DECREASE IN VALUE OF FARM LAND AND BUILDINGS PER ACRE, TENNESSEE COUNTIES, 1920-1930

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Scott	31.0	33	Roane	-9.8	65	Gibson	-37.2
2	Carter	29.1	34	Moore	-11.3	66	Williamson	-37.6
3	Cumberland	26.0	35	Shelby	-11.3	67	DeKalb	-37.7
4	Fentress	22.7	36	Polk	-11.6	68	Carroll	-38.7
5	Unicoi	19.9	37	Putnam	-12.0	69	Macon	-39.7
6	Knox	18.8	38	Hawkins	-12.4	70	Fayette	-43.8
7	Grundy	17.4	39	Grainger	-12.7	71	Lawrence	-44.4
8	Van Buren	15.6	40	Smith	-13.9	72	Lauderdale	-45.0
9	Morgan	15.0	41	McMinn	-14.6	73	Stewart	-45.0
10	Pickett	14.8	42	Greene	-15.3	74	Sumner	-46.6
11	Campbell	13.9	43	Jefferson	-16.4	75	Franklin	-48.1
12	Sequatchie	12.0	44	Hamblen	-17.3	76	Cannon	-48.4
13	Claiborne	11.2	45	Benton	-18.0	77	Crockett	-49.3
14	Johnson	10.5	46	Loudon	-18.0	78	Coffee	-51.5
15	Hamilton	9.9	47	White	-19.8	79	Robertson	-52.5
16	Anderson	9.3	48	Hickman	-20.2	80	Dyer	-53.0
17	Union	8.4	49	Henderson	-20.4	81	Rutherford	-53.1
18	Cocke	7.6	50	Decatur	-21.6	82	Hardin	-54.1
19	Blount	5.6	51	Humphreys	-22.6	83	Haywood	-55.3
20	Sevier	2.8	52	Montgomery	-22.9	84	Maury	-55.6
21	Washington	1.5	53	Meigs	-24.2	85	Wayne	-55.7
22	Sullivan	1.1	54	Dickson	-26.3	86	Wilson	-56.5
23	Marion	-1.2	55	Cheatham	-27.2	87	Tipton	-61.5
24	Clay	-4.1	56	Lewis	-27.3	88	Trousdale	-67.1
25	Davidson	-4.9	57	Rhea	-27.6	89	Giles	-73.6
26	Chester	-5.2	58	McNairy	-27.7	90	Obion	-74.1
27	Madison	-6.3	59	Monroe	-29.5	91	Lincoln	-82.4
28	Bledsoe	-6.8	60	Lake	-30.7	92	Bedford	-83.5
29	Bradley	-7.7	61	Houston	-31.1	93	Henry	-85.0
30	Perry	-8.5	62	Warren	-31.9	94	Marshall	-85.4
31	Hancock	-8.6	63	Hardeman	-34.9	95	Weakley	-88.6
32	Overton	-8.6	64	Jackson	-36.6			
							State Average	-21.41

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Table III.

Table XLI.

PERCENTAGE INCREASE OR DECREASE IN VALUE OF FARM LAND AND BUILDINGS PER ACRE, TENNESSEE COUNTIES, 1920-1925

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Scott	19.7	33	Overton	-10.3	65	Franklin	-32.0
2	Fentress	11.4	34	Bledsoe	-10.7	66	Cheatham	-32.7
3	Carter	9.2	35	Putnam	-10.8	67	Cannon	-33.0
4	Grainger	8.6	36	Jefferson	-10.9	68	DeKalb	-33.9
5	Sequatchie	8.2	37	Montgomery	-11.9	69	Carroll	-35.2
6	Cumberland	7.7	38	Hawkins	-12.8	70	Hardeman	-37.5
7	Campbell	7.3	39	Loudon	-13.7	71	Shelby	-38.1
8	Hancock	6.6	40	Hamblen	-14.5	72	Haywood	-38.3
9	Cocke	6.5	41	Dyer	-15.5	73	Meigs	-39.2
10	Knox	6.5	42	Lake	-16.5	74	Henderson	-40.0
11	Van Buren	6.0	43	McMinn	-17.7	75	McNairy	-40.8
12	Unicoi	5.3	44	Marion	-18.5	76	Sumner	-41.8
13	Greene	5.1	45	Sullivan	-18.6	77	Crockett	-42.0
14	Anderson	4.8	46	Polk	-19.0	78	Houston	-43.0
15	Sevier	4.0	47	Jackson	-19.2	79	Wilson	-43.4
16	Johnson	3.7	48	Grundy	-20.6	80	Rhea	-43.5
17	Pickett	3.0	49	Chester	-21.3	81	Lauderdale	-44.9
18	Claiborne	1.3	50	Benton	-21.7	82	Obion	-45.3
19	Morgan	0.4	51	Decatur	-21.8	83	Macon	-48.1
20	Perry	0.4	52	Monroe	-23.6	84	Lawrence	-49.8
21	Humphreys	0.1	53	White	-23.6	85	Trousdale	-51.2
22	Clay	0.01	54	Warren	-26.0	86	Bedford	-52.7
23	Roane	-0.4	55	Robertson	-28.0	87	Wayne	-54.5
24	Union	-1.7	56	Dickson	-28.2	88	Fayette	-56.2
25	Moore	-2.7	57	Madison	-28.6	89	Tipton	-56.7
26	Washington	-2.9	58	Rutherford	-28.8	90	Marshall	-58.4
27	Davidson	-3.7	59	Maury	-29.0	91	Giles	-59.5
28	Hickman	-6.2	60	Gibson	-29.4	92	Henry	-61.1
29	Lewis	-6.3	61	Stewart	-30.4	93	Weakley	-64.5
30	Blount	-6.6	62	Hardin	-30.7	94	Smith	-75.4
31	Hamilton	-8.5	63	Williamson	-30.7	95	Lincoln	-86.8
32	Bradley	-9.4	64	Coffee	-31.8			
							State Average	-19.24

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Table III.

Table XLII.

PERCENTAGE INCREASE OR DECREASE IN VALUE OF FARM LAND AND BUILDINGS PER ACRE, TENNESSEE COUNTIES, 1925-1930

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Grundy	31.5	33	Cheatham	4.2	65	Williamson	-5.3
2	Carter	21.9	34	Sequatchie	4.1	66	Gibson	-6.1
3	Cumberland	19.8	35	Lawrence	3.6	67	Giles	-8.8
4	Shelby	19.4	36	Bledsoe	3.5	68	Perry	-8.9
5	Madison	17.4	37	White	3.1	69	Wilson	-9.1
6	Hamilton	16.9	38	Benton	3.0	70	Roane	-9.4
7	Sullivan	16.6	39	McMinn	2.6	71	Montgomery	-9.8
8	Unicoi	15.5	40	Lincoln	2.4	72	Trousdale	-10.5
9	Morgan	15.0	41	Hardeman	1.9	73	Stewart	-11.2
10	Marion	14.6	42	Bradley	1.5	74	Cannon	-11.6
11	Weakely	14.6	43	Dickson	1.5	75	Franklin	-12.3
12	Scott	14.1	44	Overton	1.5	76	Haywood	-12.3
13	Henderson	13.9	45	Cocke	1.1	77	Lake	-12.3
14	Chester	13.3	46	Hawkins	0.3	78	Hickman	-13.2
15	Knox	13.1	47	Decatur	0.2	79	Coffee	-14.6
16	Fentress	12.7	48	Lauderdale	-0.1	80	Jackson	-14.6
17	Pickett	12.1	49	Wayne	-0.7	81	Henry	-14.9
18	Blount	11.4	50	Davidson	-1.1	82	Hancock	-16.3
19	Rhea	11.1	51	Putnam	-1.1	83	Marshall	-17.1
20	Meigs	10.7	52	Sevier	-1.2	84	Hardin	-17.9
21	Claiborne	10.0	53	Hamblen	-2.5	85	Rutherford	-18.9
22	McNairy	9.3	54	Carroll	-2.6	86	Robertson	-19.1
23	Unicoi	9.2	55	DeKalb	-2.9	87	Lewis	-19.7
24	Houston	8.3	56	Tipton	-3.0	88	Obion	-19.8
25	Van Buren	8.3	57	Sumner	-3.4	89	Bedford	-20.2
26	Fayette	7.9	58	Loudon	-3.7	90	Maury	-20.6
27	Campbell	7.2	59	Clay	-4.1	91	Greene	-21.5
28	Johnson	7.0	60	Moore	-4.3	92	Smith	-22.0
29	Polk	6.2	61	Monroe	-4.7	93	Humphreys	-22.7
30	Macon	5.7	62	Warren	-4.7	94	Grainger	-23.3
31	Anderson	4.7	63	Jefferson	-5.0	95	Dyer	-32.4
32	Washington	4.4	64	Crockett	-5.1			
							State Average	-2.68

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Table III.

counties having similar percentage increases to be grouped in certain areas. There was some tendency toward moderately high increases in a group of counties in the extreme western portion of the state, in upper East Tennessee, and in a limited area in the northeastern section of Middle Tennessee. Although the percentage increases were moderately high in these areas, they were far from uniform. There was also some tendency for counties having low percentage increases to be grouped in an area including the whole southern section of East Tennessee and extending across the southern part of the Cumberland Plateau through parts of the Highland Rim and Central Basin. Percentage increases were comparatively low in the whole eastern portion of West Tennessee.

The value of farm land and buildings per acre, in Tennessee, increased 119 per cent from 1910 to 1920 (Table XXXIX). The increase in value during this period was higher than during either of the other ten-year periods since 1930. The percentage increase in value ranged from 24.3 per cent in Scott County to 222.9 per cent in Lawrence County. The range was less than during the previous ten-year period, and the distribution of counties in the various percentage groups was very different. From 1910 to 1920, values increased over 100 per cent in 71 counties, as compared with 23 counties from 1900 to 1910. Increases of less than 50 per cent occurred in only two counties, as compared with 11 counties during the previous period.

In general, the counties which had the smallest percentage increases from 1900 to 1910 had the highest increases from 1910 to 1920. A large number of these counties were located in the cotton and tobacco areas.

The high prices of these products during the war period resulted in great increases in land values. Comparatively high percentage increases occurred in a number of poorer counties. During the boom period there was, in many areas, a tendency to greatly overvalue poor lands for agricultural purposes. Increases of over 100 per cent occurred in every West Tennessee county except Shelby.

From 1920 to 1930, value of farm land and buildings per acre, in Tennessee, decreased 21.41 per cent (Table XL). Decreases did not occur in all counties, however. Values continued to increase in 22 counties. The percentage change varied from a 31 per cent increase in Scott County to a decrease of 88.6 per cent in Weakley County. Decreases of over 50 per cent occurred in 18 counties.

The greatest percentage decreases in value occurred in the south central portion of Middle Tennessee and in the northern portion of West Tennessee. A mixed type of farming, including cotton and livestock, is practiced in each of these areas. Comparatively high decreases occurred in most of the counties where overvaluation of agricultural land had been greatest during the boom period.

The greatest percentage increases, from 1920 to 1930, occurred in the Cumberland Plateau and Upper East Tennessee areas. Values in the Cumberland Plateau area have always been comparatively low. There was no great inflation of values in that area during the boom period. As an agricultural area, the Plateau section has not been fully developed. The decline of mining and lumbering activities in that area,

during recent years, has caused a larger portion of the population to turn to agricultural pursuits as a means of gaining a livelihood. These, and other factors, have kept the demand for land in that section great enough to maintain an increase in values. The continued increase in values in upper East Tennessee may be attributed largely to the comparatively rapid industrial development in that section during recent years. Industrial development has resulted in better and nearer markets for agricultural products and in a general improvement of living conditions in the surrounding areas.

A large percentage of the decline in values from 1920 to 1930 occurred immediately after 1920. Values declined 19.24 per cent from 1920 to 1925 and only 2.68 per cent from 1925 to 1930 (Tables XLI and XLII). From 1920 to 1925, values continued to increase in only 22 counties; whereas, increases occurred in 47 counties from 1925 to 1930. During the first five-year period, the percentage change ranged from an increase of 19.7 per cent in Scott County to a decrease of 86.8 per cent in Lincoln County. During the second five-year period, the percentage change in value ranged from an increase of 31.5 per cent in Grundy County to a decrease of 32.4 per cent in Dyer County.

Movements of Values by Soil Areas and Sub-Areas, in Tennessee: 1880-1930

A general idea of the trend of farm real estate values in the different areas of the state may be gained by studying the preceding maps. In order to definitely determine trends in the different soil areas, however, it is necessary to select for study only those counties which are made up largely of one soil type. When a number of similar

counties are studied as a group, any abnormality occurring in an individual county is greatly diminished and does not unduly distort the trend.

Comparison of Soil Areas. Average value per acre of farm land and buildings in Tennessee is shown by soil areas, for each census period since 1880, in Table XLIII and illustrated in Fig. 32. The value peak was reached in 1920 in all areas except the Unaka Range

Table XLIII.

AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN TENNESSEE, BY SOIL AREAS, BY CENSUS PERIODS, 1880-1930

Region	1880	1890	1900	1910	1920	1925	1930
Tennessee	$10.00	$12.03	$13.03	$23.97	$52.53	$42.14	$41.28
Unaka Range	3.09	6.90	10.96	18.35	36.88	38.93	46.07
East Tennessee Valley	9.80	11.54	12.29	21.60	48.57	46.48	43.02
Cumberland Plateau	2.46	4.83	5.15	9.85	15.66	16.35	20.11
Eastern Highland Rim	7.00	7.50	8.10	14.18	28.44	24.01	22.96
Central Basin	18.93	19.12	20.71	35.93	75.45	52.37	44.64
Western Highland Rim	7.33	9.14	11.06	17.43	40.68	33.15	30.60
Southwestern Highland Rim	5.80	5.27	5.89	9.35	25.88	18.87	19.35
West Tennessee Slope	10.24	10.75	13.08	25.48	61.81	42.54	38.34
Mississippi Bottoms	9.27	20.51	27.16	49.76	110.84	95.17	84.78

Source: United States Bureau of the Census, Tenth, Eleventh, Twelfth, Thirteenth, Fourteenth, and Fifteenth Census of the United States: 1880-1930, Agriculture - Tennessee.

(Unicoi County) and the Cumberland Plateau, where values continued to increase from 1920 to 1930. The highest average value was found in the Mississippi Bottoms area (Lake County). The actual average values and absolute amounts of change illustrated in Fig. 32 should not be confused with relative changes in values, which are probably of greater significance. Relative, or percentage, changes are not necessarily highest

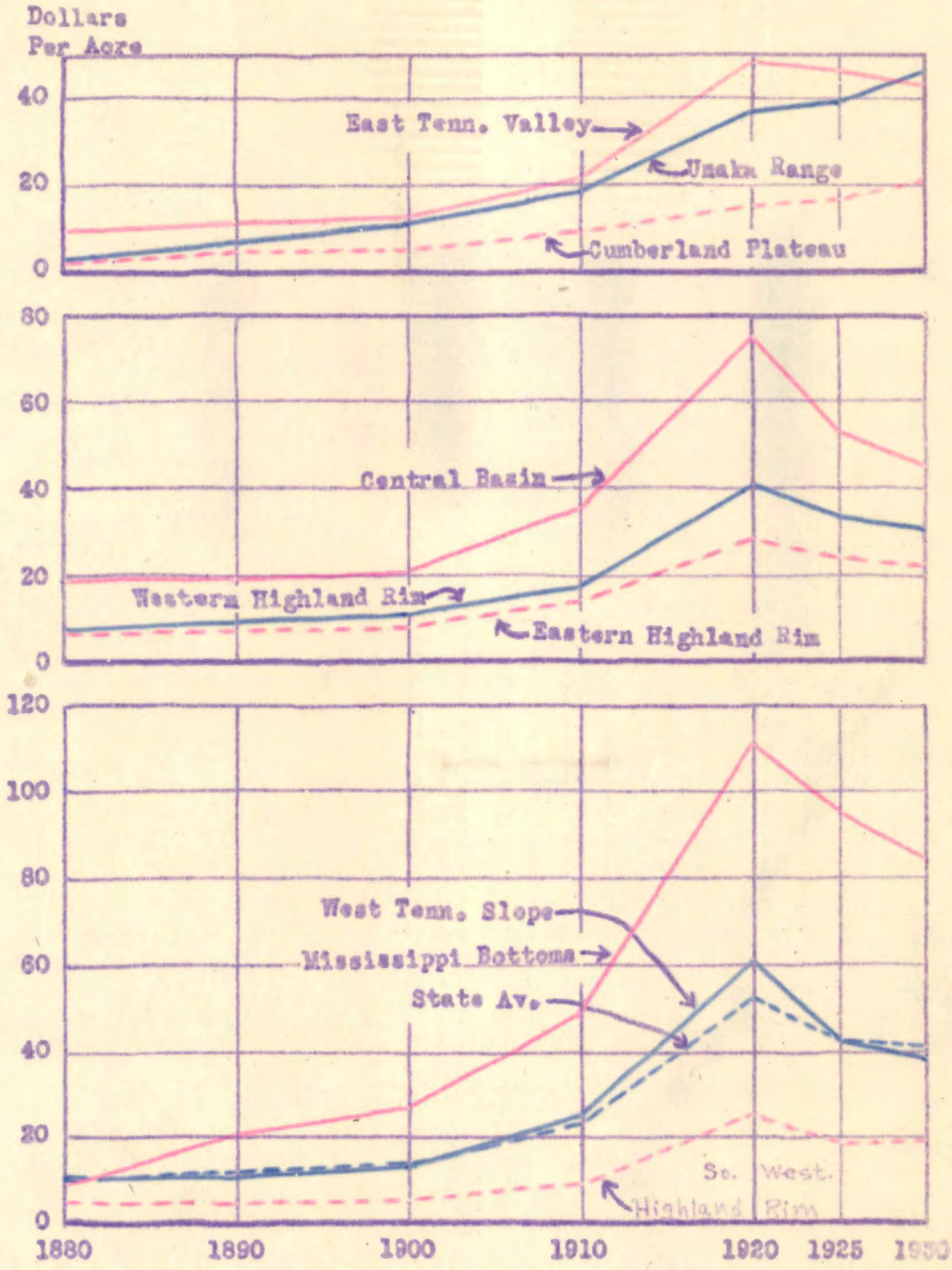


Fig. 32. Average Value Per Acre of Farm Land and Buildings in Tennessee, by Soil Areas, 1880- 1930

Based on Table XLIII.

in the areas having highest average values and greatest absolute increases in value per acre.

The percentage increase or decrease in average value of farm land and buildings per acre, in Tennessee is shown by soil areas, for each census period since 1880, in Table XLIV. During the period

Table XLIV.

PERCENTAGE INCREASE OR DECREASE IN AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN TENNESSEE, BY SOIL AREAS, BY CENSUS PERIODS, 1880-1930

Region	1880-90	1890-1900	1900-10	1910-20	1920-25	1925-30
Tennessee	20.30	8.31	83.96	119.14	-19.77	-2.04
Unaka Range	123.30	58.84	67.42	100.98	5.55	18.34
East Tennessee Valley	17.75	6.49	75.75	124.86	-4.30	-7.44
Cumberland Plateau	96.34	6.62	91.26	58.98	4.40	22.99
Eastern Highland Rim	7.14	8.00	75.06	100.56	-15.57	-4.37
Central Basin	1.00	8.31	73.49	109.99	-30.58	-14.76
Western Highland Rim	24.69	21.00	57.59	133.39	-18.51	-7.69
Southwestern Highland Rim	9.13	11.76	58.74	176.79	-27.08	2.54
West Tennessee Slope	4.98	21.67	94.80	142.58	-31.17	-9.87
Mississippi Bottoms	121.25	32.42	83.21	122.74	-14.13	-10.91

Source: Calculated from data in Table XLIII.

of greatest increase in land values, 1910-1920, average value per acre increased 176 per cent in the Southwestern Highland Rim area. The increase in the area having the highest average value per acre, Mississippi Bottoms, was 122 per cent from 1910 to 1920. The lowest increase occurred in the Cumberland Plateau area, where values increased only 59 per cent. From 1920 to 1925, the greatest decrease in average value per acre, 31 per cent, occurred in the West Tennessee Slope area. In the Southwestern

Highland Rim area, where the highest percentage increase occurred from 1910 to 1920, values declined 27 per cent during the 1920-25 period. From 1925 to 1930, the greatest decrease occurred in the Central Basin area, where the second highest decrease occurred during the previous five-year period. Values decreased 14 per cent in the Central Basin during the 1925-30 period. Values increased 23 per cent in the Cumberland Plateau area and 18 per cent in the Unaka Range area from 1925 to 1930. An explanation for the continued increase in values in these two areas has been offered in the preceding section, under the discussion of movements of values in Tennessee counties.

Comparisons Within Soil Areas. Since fertility, topography, and other factors vary from county to county within a given soil area, it is desirable to study sub-areas in those areas where noticeable variations exist. Four of the larger soil areas have been subdivided for the purpose of studying movements of farm real estate values.

1. East Tennessee Valley. Average value of farm land and buildings per acre in the East Tennessee Valley area has been tabulated for three sub-areas, each including three counties (Table XLV). It is apparent that there has been quite a variation in average values in the different sections of the East Tennessee Valley area (Fig. 33). In 1930, average value per acre was $63.66 in one group of counties and only $31.32 in another group.

The percentage increase or decrease in average value per acre has been far from uniform in the different groups of counties studied in the East Tennessee Valley area. Values increased 141 per cent in one

Table XLV.

AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE EAST TENNESSEE VALLEY AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880	1890	1900	1910	1920	1925	1930
East Tennessee Valley	$ 9.80	$11.54	$12.29	$21.60	$48.57	$46.48	$43.02
Greene, Hamblen, Jefferson	12.15	14.86	16.00	31.16	73.87	72.22	63.66
Grainger, Hancock, Union	7.42	9.45	9.74	19.01	34.47	36.49	32.87
Bradley, Meigs, McMinn	9.11	9.86	10.30	14.78	35.73	30.03	31.32

Source: Same as Table XLII.

group of counties while increasing 81 per cent in another group, during the period 1910-20 (Table XLVI). The increases and decreases in value have been very irregular in the different groups of counties since 1920. In one group of counties (Greene, Hamblen, and Jefferson),

Table XLVI.

PERCENTAGE INCREASE OR DECREASE IN AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE EAST TENNESSEE VALLEY AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880-90	1890-1900	1900-10	1910-20	1920-25	1925-30
East Tennessee Valley	17.75	6.49	75.75	124.86	-4.30	-7.44
Greene, Hamblen, Jefferson	22.30	7.67	94.75	137.06	-2.23	-11.85
Grainger, Hancock, Union	27.35	3.06	95.17	81.32	5.86	-9.92
Bradley, Meigs, McMinn	8.23	4.46	43.49	141.74	-15.95	4.29

Source: Calculated from data in Table XLV.

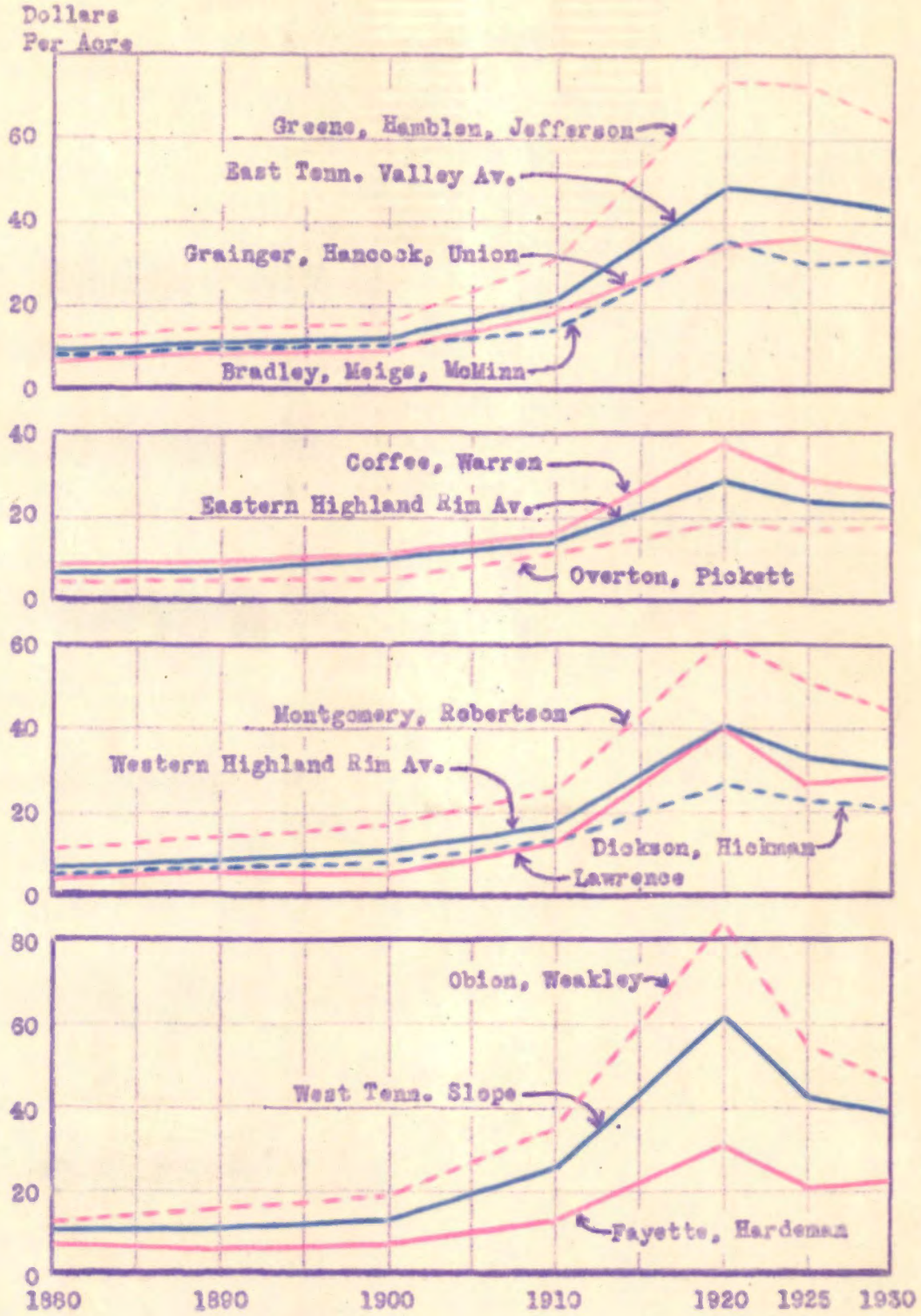


Fig. 33. Average Value Per Acre of Farm Land and Buildings in Tennessee, by Soil Areas and Subareas, 1880-1930

Based on Tables XLV, XLVII, XLIX, and LI.

values decreased 2.23 per cent during the 1920-25 period and 11.85 per cent during the following five-year period. In another group of counties (Grainger, Hancock, and Union), values increased 5.36 per cent from 1920 to 1925, and then decreased 9.92 per cent from 1925 to 1930. In the third group of counties (Bradley, Meigs, and McMinn), values decreased 15.95 per cent during the first five-year period after 1920, and then increased 4.29 per cent during the second five-year period. The preceding figures give some idea of the great variation in values found in the counties within the East Tennessee Valley area.

2. Eastern Highland Rim. It is generally known that there is a considerable difference in the productivity of the soils in the central and northern sections of the Eastern Highland Rim area. Average value of farm land and buildings per acre has been tabulated for Overton and Pickett Counties in the northern section and Coffee and Warren Counties in the central section. In 1930, average value per acre was $17.93 in Overton and Pickett Counties and $26.45 in Coffee and Warren Counties (Table XLVII). There was a much greater difference in values between the two sections in 1920.

From 1910 to 1920, values increased 125 per cent in Coffee and Warren Counties. During the same period, values increased only 63 per cent in Overton and Pickett Counties. Following 1920, the decrease in values has been greater in Coffee and Warren Counties; in fact, values increased in Overton and Pickett Counties from 1925 to 1930.

Table XLVII.

AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE EASTERN HIGHLAND RIM AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880	1890	1900	1910	1920	1925	1930
Eastern Highland Rim	$7.00	$7.50	$8.10	$14.18	$28.44	$24.01	$22.96
Coffee, Warren	8.91	9.40	10.86	16.49	37.23	28.92	26.45
Overton, Pickett	4.23	5.61	5.30	11.20	18.28	17.17	17.93

Source: Same as Table XLIII.

Table XLVIII.

PERCENTAGE INCREASE OR DECREASE IN AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE EASTERN HIGHLAND RIM AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880-90	1890-1900	1900-10	1910-20	1920-25	1925-30
Eastern Highland Rim	7.14	8.00	75.06	100.56	-15.57	-4.37
Coffee, Warren	5.49	15.53	51.84	125.77	-22.32	-8.54
Overton, Pickett	32.62	-5.52	111.32	63.21	-6.07	4.42

Source: Calculated from data in Table XLVII.

3. Western Highland Rim. Average value of land and buildings per acre in the Western Highland Rim area has been tabulated for three sections within the area (Table XLIX). Lawrence County is located in the extreme southern section, Dickson and Hickman Counties in the central section, and Montgomery and Robertson Counties in the northern section.

Values increased 222 per cent in Lawrence County from 1910 to 1920, then decreased 133 per cent during the following five-year period (Table L). Lawrence County is located in the cotton section, where inflation of

Table XLIX.

AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE WESTERN HIGHLAND RIM AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880	1890	1900	1910	1920	1925	1930
Western Highland Rim	$ 7.33	$ 9.14	$11.06	$17.43	$40.68	$33.15	$30.60
Lawrence	4.35	6.20	5.67	12.62	40.75	27.19	28.21
Dickson, Hickman	5.89	6.99	8.37	13.62	26.65	22.79	21.61
Montgomery, Robertson	11.62	14.56	17.59	25.88	61.42	50.89	44.31

Source: Same as Table XLIII.

Table L.

PERCENTAGE INCREASE OR DECREASE IN AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE WESTERN HIGHLAND RIM AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880-90	1890-1900	1900-10	1910-20	1920-25	1925-30
Western Highland Rim	24.69	21.00	57.59	133.39	-18.51	-7.69
Lawrence	42.52	-8.54	122.57	222.90	-133.27	3.75
Dickson, Hickman	18.67	19.74	62.72	95.66	-14.48	-5.17
Montgomery, Rogertson	25.30	20.81	47.12	137.32	-17.74	-12.92

Source: Calculated from data in Table XLIX.

farm real estate values was greatest. Inflation of values was comparatively high in Montgomery and Robertson Counties, which are two important tobacco producing counties.

4. West Tennessee Slope. Two sections of the West Tennessee Slope area have been selected for study, namely, Fayette and Hardeman Counties in the northern section. Average values have been over twice as high in the northern section as in the southern section. In 1930, the average

value per acre was $22.01 in Fayette and Hardeman Counties and $46.44 in Obion and Weakley Counties (Table LI).

From 1910 to 1920, values increased 141 per cent in Fayette and Hardeman Counties and 138 per cent in Obion and Weakley Counties (Table LII). The percentage decreases in the two sections were approximately equal during the five-year period 1920-25. From 1925 to 1930, however, average value per acre decreased 15.20 per cent

Table LI.

AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE WEST TENNESSEE SLOPE AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880	1890	1900	1910	1920	1925	1930
West Tennessee Slope	$10.24	$10.75	$13.08	$25.48	$61.81	$42.54	$38.34
Fayette, Hardeman	7.83	6.26	7.55	12.68	30.65	20.70	22.01
Obion, Weakley	12.74	15.85	18.89	35.26	84.12	54.77	46.44

Source: Same as Table XLIII.

Table LII.

PERCENTAGE INCREASE OR DECREASE IN AVERAGE VALUE OF FARM LAND AND BUILDINGS PER ACRE IN THE WEST TENNESSEE SLOPE AREA, BY SUB-AREAS, 1880-1930

Area and Sub-Area	1880-90	1890-1900	1900-10	1910-20	1920-25	1925-30
West Tennessee Slope	4.98	21.67	94.80	142.58	-31.17	-9.87
Fayette, Hardeman	-20.05	20.60	67.94	141.71	-32.46	6.32
Obion, Weakley	24.41	19.17	86.65	138.57	-34.89	-15.20

Source: Calculated from data in Table LI.

in Obion and Weakley Counties while increasing 6.32 per cent in Fayette and Hardeman Counties.

Comparison of Sale Values and Census Values of Farm Real Estate in Tennessee

In America the value of farm real estate is understood to be the price at which the farms sell in the market. The real estate market is not highly organized and with many different conditions surrounding each sale, the price for a farm may not reflect accurately the income which the farm is likely to yield over a period of years. Barring forced sales, however, the average sale price for farm real estate is likely to reflect approximately what buyers and sellers think the farms are worth, and presumably the basis for valuation in most cases is expected incomes from the farm.

Figures of the value of farm land usually are based on actual sales or estimates of values such as those found in the United States Census. The values of farm land and buildings in the Census are estimations by the owner or the enumerator of the "amount for which the farm would sell if it were being sold under normal conditions — not at forced sale". When census values are used the question arises as to the reliability of the figures. Do census figures approximate the sale prices of farm real estate or are they biased either upward or downward?(1)

Since census values are based upon estimates, they may be suspected of two kinds of error. (1) They may not accurately reflect the variations in productivity of land from county to county because of errors in making estimates. (2) The whole level of values may be biased above or below the actual average sale prices. If optimism prevails among farmers, they may state that their farms are worth more than they would actually sell for if placed on the market. On the other hand, farmers may place a lower value on their farms than they would actually sell for, fearing the effect of high values on their taxes.(2)

The results of a comparison of sale values and census values in

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(1) Johnson, E. C., "A Comparison of Sale Values of Farm Real Estate and Census Values in Minnesota", Journal of Farm Economics, Vol. XV, No. 1, p. 174. The American Farm Economic Association, 1933.
(2) Chambers, Clyde R., Relation of Land Income to Land Value, p. 10.

Tennessee counties are shown below. The sales figures exclude all forced sales and sales to relatives as nearly as possible. Therefore they represent prices which should be to a great extent the result of bargaining between a buyer and seller of farm land. An average sale price per acre has been computed for each county for a number of years.

Comparison of Sale Values and Census Values in 1930. The deviation, in dollars, of the census values from the average sale values of farm land and buildings per acre, in 1930, is illustrated in Fig. 34 and the counties ranked from low to high in Table LIII. Sale values exceeded census values in only two counties, Fentress and Morgan. For the entire state, census value per acre exceeded average sales value per acre by $16.98. The amount which census values exceeded sale values ranged from $1.32 per acre in Polk County to $44.77 in Carter County.

Since the average value of farm land and buildings per acre varies so much from county to county, the relative amounts of deviation should be of more significance than the actual deviations in dollars. The percentages that sale values were of census values, in 1930, are illustrated in Fig. 35 and the counties ranked from high to low in Table LIV. In Fentress and Morgan Counties, of course, sale values were over 100 per cent of census values. In the remaining 93 counties, sale values ranged from 94 per cent of census values in Polk County to 26 per cent in Scott County. For the entire state, sale values were 58.86 per cent of census values. Sale values were less than 50 per cent of census values in 21 counties. The percentage deviations

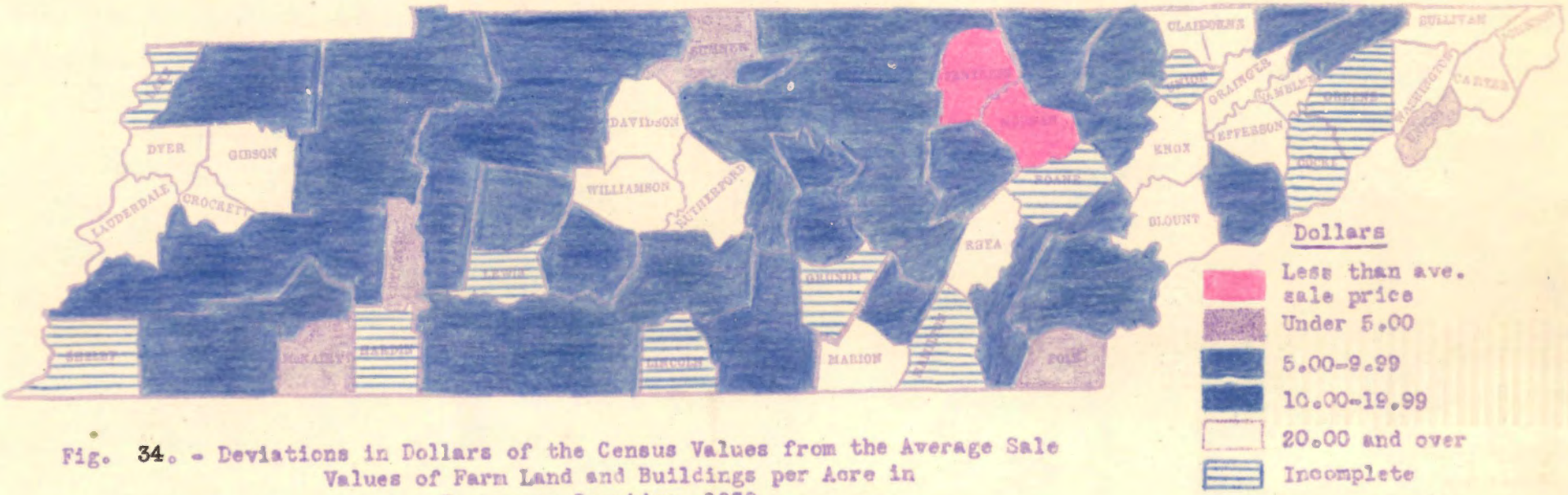


Fig. 34. - Deviations in Dollars of the Census Values from the Average Sale Values of Farm Land and Buildings per Acre in Tennessee Counties, 1930

Based on Table LIII.

Table LIII.

DEVIATION IN DOLLARS OF THE CENSUS LAND VALUES FROM ACTUAL SALE PRICES, IN TENNESSEE COUNTIES, 1930

Rank	County	Deviation	Rank	County	Deviation	Rank	County	Deviation
1	Morgan*	-$3.73	33	Hawkins	$ 8.95	65	Trousdale	$19.70
2	Fentress*	- 1.72	34	Clay	9.37	66	Grainger	20.17
3	Polk	1.32	35	Wilson	9.50	67	Crockett	20.25
4	Unicoi	2.96	36	Van Buren	9.81	68	Gibson	21.36
5	Sumner	3.40	37	Hickman	9.90	69	Claiborne	21.70
6	Decatur	4.43	38	Dickson	10.20	70	Washington	23.49
7	McNairy	4.58	39	Henderson	10.62	71	Rhea	23.94
8	Fayette	5.19	40	Sevier	10.95	72	Marion	24.08
9	Hardeman	5.27	41	Meigs	12.12	73	Sullivan	24.22
10	Bedford	5.34	42	Loudon	12.36	74	Johnson	26.80
11	Pickett	5.61	43	Scott	12.78	75	Williamson	26.86
12	Overton	5.72	44	Warren	12.97	76	Blount	27.29
13	Houston	6.11	45	Anderson	13.13	77	Jefferson	28.13
14	Benton	6.39	46	Humphreys	13.23	78	Hamblen	28.54
15	Jackson	6.39	47	Coffee	13.74	79	Dyer	31.22
16	Putnam	6.77	48	Cumberland	13.87	80	Rutherford	32.04
17	Chester	7.08	49	Weakley	14.49	81	Lauderdale	32.26
18	Lawrence	7.12	50	Franklin	14.84	82	Davidson	35.45
19	Smith	7.15	51	Perry	14.99	83	Knox	38.10
20	Campbell	7.66	52	Bradley	15.96	84	Carter	44.77
21	Macon	7.66	53	Robertson	16.20	85	Cocke	Incomplete
22	Wayne	7.72	54	Sequatchie	16.20	86	Greene	"
23	Stewart	7.86	55	Hancock	16.99	87	Grundy	"
24	Carroll	7.87	56	Cheatham	17.02	88	Hamilton	"
25	Cannon	8.04	57	Montgomery	17.11	89	Hardin	"
26	Giles	8.24	58	Haywood	17.13	90	Lake	"
27	Bledsoe	8.50	59	Madison	17.61	91	Lewis	"
28	White	8.54	60	Obion	18.26	92	Lincoln	"
29	McMinn	8.59	61	DeKalb	18.65	93	Roane	"
30	Monroe	8.60	62	Moore	19.06	94	Shelby	"
31	Marshall	8.62	63	Maury	19.33	95	Union	"
32	Henry	8.70	64	Tipton	19.57			
							State Average	$16.98

* Census values less than sale values

Source: Census data from United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

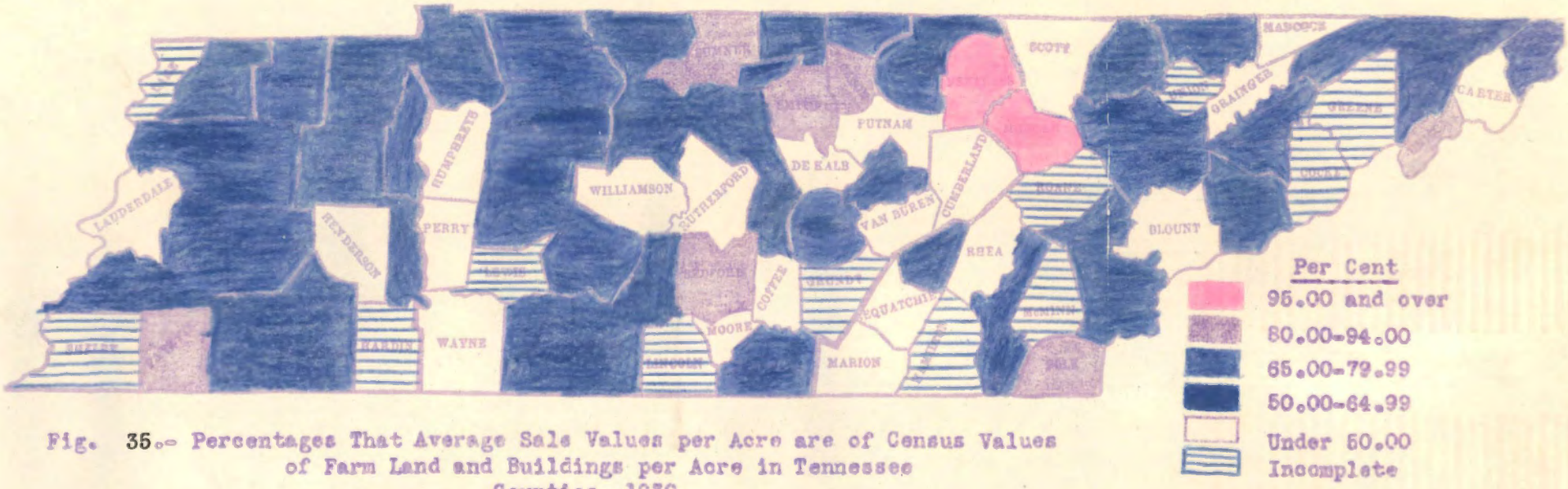


Fig. 35.- Percentages That Average Sale Values per Acre are of Census Values of Farm Land and Buildings per Acre in Tennessee Counties, 1930

Based on Table LIV.

Table LIV.

PERCENTAGE THAT SALE VALUES WERE OF CENSUS VALUES OF FARM LAND AND BUILDINGS PER ACRE, IN TENNESSEE COUNTIES, 1930

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Morgan	120.32	33	Davidson	67.21	65	Blount	48.7
2	Fentress	112.27	34	Stewart	66.53	66	Coffee	48.65
3	Polk	94.86	35	Bledsoe	66.50	67	Wayne	47.90
4	Sumner	94.15	36	Obion	65.79	68	Hancock	47.00
5	Unicoi	93.57	37	Houston	65.67	69	Humphreys	46.19
6	Bedford	87.19	38	Crockett	64.89	70	Henderson	45.51
7	Smith	83.04	39	Madison	64.12	71	DeKalb	43.36
8	Jackson	80.82	40	Weakley	63.99	72	Lauderdale	42.79
9	Fayette	80.00	41	Gibson	63.44	73	Carter	42.53
10	Hawkins	79.85	42	Benton	63.27	74	Moore	42.12
11	Giles	78.56	43	Knox	63.18	75	Cumberland	39.29
12	Marshall	77.88	44	Trousdale	62.78	76	Van Buren	38.87
13	Wilson	76.76	45	Maury	61.04	77	Grainger	38.56
14	Campbell	75.65	46	Franklin	60.43	78	Putnam	37.90
15	Lawrence	74.76	47	Anderson	60.06	79	Rhea	33.57
16	Decatur	74.65	48	Tipton	59.93	80	Marion	33.51
17	McNairy	74.06	49	Clay	59.15	81	Rutherford	33.30
18	Sevier	73.92	50	Haywood	58.47	82	Perry	26.69
19	Washington	73.64	51	Hamblen	58.11	83	Scott	26.08
20	Macon	72.09	52	Meigs	55.26	84	Roane	Incomplete
21	White	71.14	53	Hickman	55.14	85	Shelby	"
22	Monroe	70.98	54	Johnson	55.00	86	Union	"
23	Hardeman	69.83	55	Montgomery	54.44	87	Cocke	"
24	Loudon	69.77	56	Jefferson	53.21	88	Greene	"
25	Sullivan	69.74	57	Claiborne	52.55	89	Grundy	"
26	Cannon	69.10	58	Bradley	52.41	90	Hamilton	"
27	Chester	69.04	59	Dyer	51.98	91	Hardin	"
28	Carroll	68.94	60	Dickson	51.88	92	Lake	"
29	Pickett	68.64	61	Warren	50.47	93	Lewis	"
30	Robertson	68.61	62	Cheatham	50.19	94	Lincoln	"
31	Overton	68.13	63	Sequatchie	49.51	95	McMinn	"
32	Henry	67.84	64	Williamson	49.09			
							State Average	58.86

Source: Census data from United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

were comparatively high in the West Tennessee, Western Highland Rim, and Cumberland Plateau areas. It is interesting to note that the highest and lowest percentage deviations were found in adjoining counties in the Cumberland Plateau area.

The above figures were used with the intention of showing the situation as it existed in 1930. However, there may be some doubt concerning the representativeness of the sale values for that year, since over 50 per cent of the averages are based on less than 100 sales per county. In order to obtain averages based on larger numbers of sales, averages have been computed for each county for the six-year period 1928-33. Values have not been constant during this period and the changes in value have not been constant in the different sections of the state. Of course, average values based on sales during the six-year period are not directly comparable with the 1930 Census values; but it is believed that the data obtained in this manner will give a fairly representative picture of the relative situation in the counties of the state.

Comparison of 1928-33 Sale Values with 1930 Census Values. The deviation in dollars of the 1930 Census values from the 1928-33 average sale prices of farm land and buildings per acre is illustrated in Fig. 36. In general, the distribution of the counties is very similar to that in Fig. 34, where average sale values were based on 1930 sales. However, the use of a longer period and a larger number of sales, in computing the county averages, has resulted in some changes. Based on 1928-33 averages, sale values were less than census values in Fentress and Morgan Counties, where the opposite situation was found when only 1930 sale values were used.

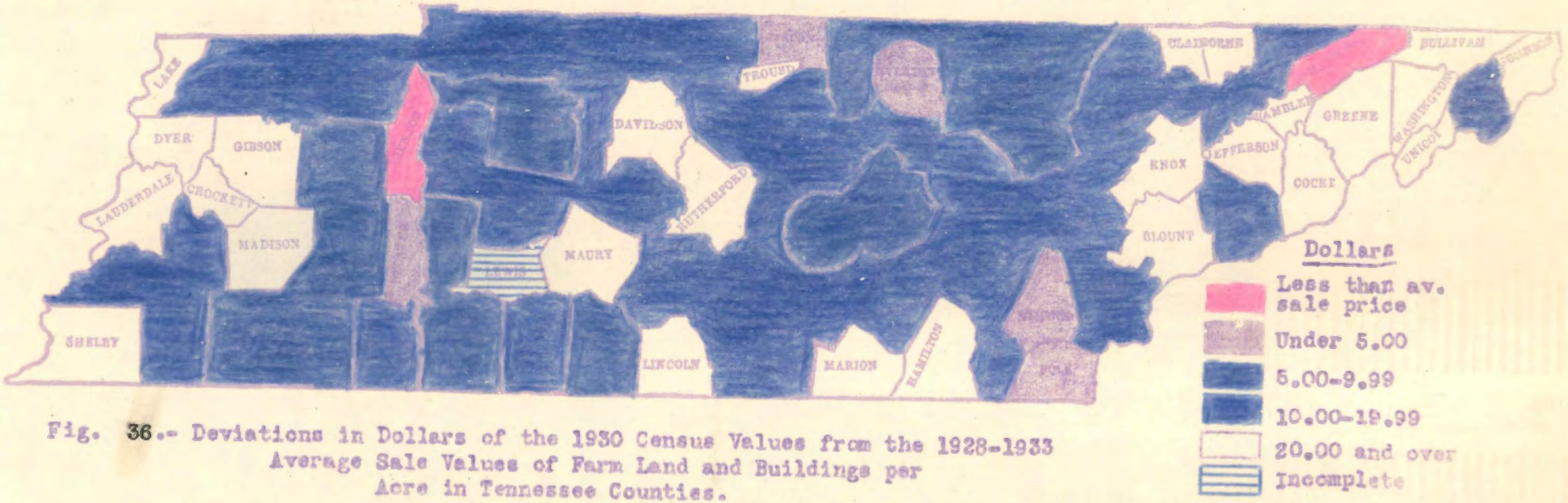


Fig. 36.- Deviations in Dollars of the 1930 Census Values from the 1928-1933 Average Sale Values of Farm Land and Buildings per Acre in Tennessee Counties.

Based on Table LV.

The 1928-33 average sale values were higher than the 1930 Census values in Benton and Hawkins Counties. In the remainder of the counties, census values were higher than sale values. The deviation, in dollars per acre, ranged from $1.52 in Decatur County to $52.19 in Knox County (Table LV). The average deviation for the state was $17.52. The greatest deviations were found in the extreme western part of the state, the extreme eastern section, and in the Central Basin.

The relative amounts of deviation are illustrated in Fig. 37. The distribution of counties on the basis of relative amounts of deviation is very similar to the distribution on the basis of deviation in dollars. Sale values were over 100 per cent of census values in Benton and Hawkins Counties. In the other 93 counties, sale values ranged from 91.30 per cent of census values in Decatur County to 26.17 per cent in Cumberland County (Table LVI). Average sale value per acre for the state was 57.55 per cent of average census value. Sale values were less than 50 per cent of census values in 15 counties. High percentage deviations are found in certain counties in each grand division of the state.

The 1928-33 average sale values and the 1930 Census values of farm land and buildings per acre are illustrated in Figs. 38 and 39, respectively. The two figures strikingly illustrate the fact that census values were higher than sale values. Based on sale values, there were no counties in the upper value group ($75 per acre and above). Based on census values, seven counties were in the highest value group. Average sale values were less than $15 per acre in 25 counties, while average census values were less than $15 per acre in only two counties.

Sale values ranged from $67.26 per acre in Washington County to

Table LV.

DEVIATION IN DOLLARS OF THE 1930 CENSUS VALUES FROM THE 1928-33 AVERAGE SALE PRICES OF LAND AND BUILDINGS PER ACRE, IN TENNESSEE COUNTIES

Rank	County	Deviation	Rank	County	Deviation	Rank	County	Deviation
1	Benton*	-$4.13	33	Hardin	$10.66	65	Robertson	$17.92
2	Hawkins*	-3.80	34	Monroe	10.75	66	Montgomery	18.11
3	Decatur	1.52	35	Humphreys	10.93	67	DeKalb	18.71
4	Polk	3.04	36	Stewart	11.07	68	Loudon	18.99
5	Overton	3.48	37	Anderson	11.12	69	Tipton	19.43
6	Macon	4.57	38	Hickman	11.25	70	Maury	20.40
7	McMinn	4.73	39	Fayette	11.54	71	Marion	20.75
8	Hardeman	5.30	40	Bedford	12.15	72	Trousdale	21.58
9	Pickett	5.35	41	Sumner	12.19	73	Claiborne	21.78
10	Fentress	5.50	42	Henry	12.23	74	Washington	21.86
11	Chester	5.71	43	Meigs	12.26	75	Madison	21.94
12	Jackson	5.79	44	Coffee	12.30	76	Rutherford	22.31
13	McNairy	5.83	45	Marshall	12.30	77	Unicoi	23.12
14	Clay	5.96	46	Lawrence	12.53	78	Gibson	23.17
15	Perry	6.54	47	Williamson	13.11	79	Crockett	23.19
16	Houston	7.52	48	Grainger	13.43	80	Lincoln	24.55
17	Dickson	7.67	49	Moore	13.48	81	Cocke	24.90
18	Wayne	7.75	50	Campbell	13.76	82	Blount	25.48
19	Scott	8.67	51	Carter	14.16	83	Dyer	27.65
20	Henderson	8.74	52	Hancock	14.72	84	Johnson	28.61
21	Van Buren	8.84	53	Sequatchie	15.20	85	Sullivan	29.15
22	White	8.89	54	Cheatham	15.53	86	Jefferson	29.40
23	Morgan	9.11	55	Smith	15.64	87	Hamilton	29.86
24	Carroll	9.25	56	Weakley	16.12	88	Hamblen	29.94
25	Giles	9.77	57	Roane	16.17	89	Lauderdale	32.59
26	Warren	9.80	58	Obion	16.58	90	Greene	34.61
27	Grundy	10.23	59	Union	16.60	91	Lake	44.99
28	Putnam	10.27	60	Cumberland	16.87	92	Davidson	46.85
29	Cannon	10.35	61	Sevier	16.98	93	Shelby	49.02
30	Bledsoe	10.37	62	Franklin	17.06	94	Knox	52.19
31	Bradley	10.43	63	Haywood	17.58	95	Lewis	Incomplete
32	Wilson	10.54	64	Rhea	17.87			
							State Average	$17.52

*Census values less than sale values.

Source: Census data from United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

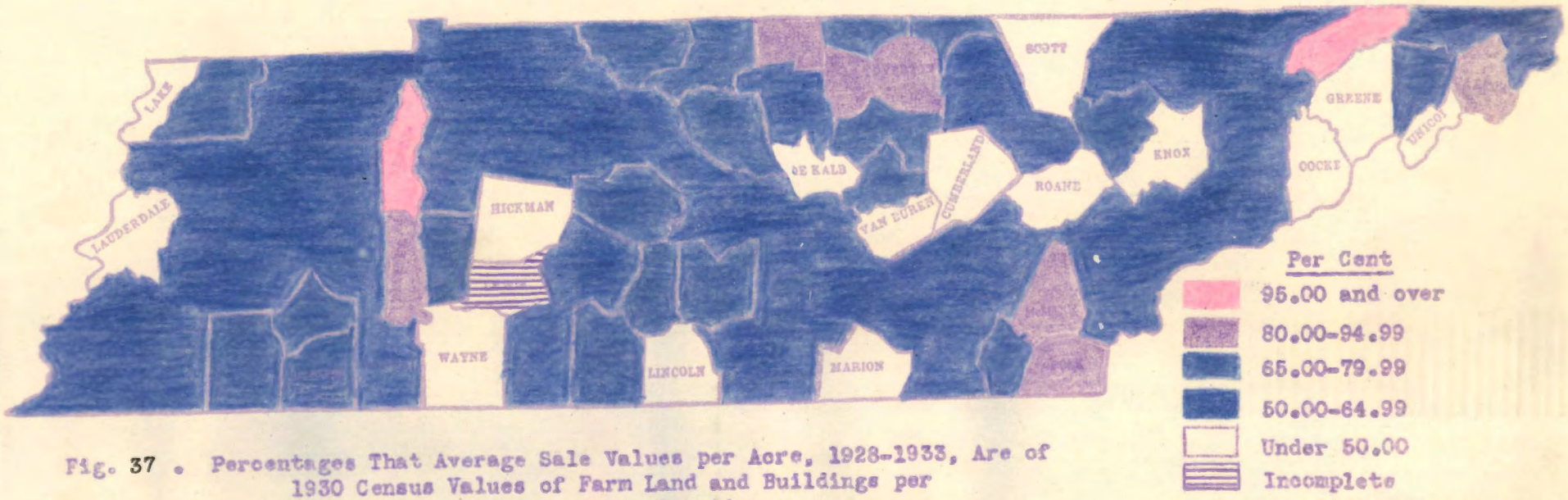


Fig. 37 . Percentages That Average Sale Values per Acre, 1928-1933, Are of 1930 Census Values of Farm Land and Buildings per Acre in Tennessee Counties

Based on Table LVI.

Table LVI.

PERCENTAGE THAT 1928-33 AVERAGE SALE VALUES PER ACRE ARE OF 1930 CENSUS VALUES OF LAND AND BUILDINGS PER ACRE, IN TENNESSEE COUNTIES

Rank	County	Per Cent	Rank	County	Per Cent	Rank	County	Per Cent
1	Benton	123.73	33	Smith	62.91	65	Hancock	54.08
2	Hawkins	108.55	34	Warren	62.58	66	Coffee	54.03
3	Decatur	91.30	35	Fentress	60.74	67	Loudon	53.56
4	Polk	88.18	36	Gibson	60.35	68	Rutherford	53.55
5	McMinn	85.13	37	Cannon	60.22	69	Stewart	52.87
6	Macon	83.35	38	Tipton	60.22	70	Sequatchie	52.63
7	Jackson	82.62	39	Weakley	59.94	71	Claiborne	52.38
8	Carter	81.82	40	Crockett	59.79	72	Blount	52.10
9	Overton	80.61	41	Sevier	59.57	73	Johnson	51.96
10	Sumner	79.05	42	Trousdale	59.23	74	Montgomery	51.78
11	Washington	75.47	43	Bledsoe	59.14	75	Jefferson	51.10
12	Williamson	75.15	44	Grainger	59.09	76	Union	51.03
13	Chester	75.03	45	Moore	59.06	77	Rhea	50.41
14	Giles	74.58	46	Hamblen	58.99	78	Hardin	50.37
15	Wilson	74.21	47	Maury	58.88	79	Morgan	50.35
16	Clay	74.01	48	Houston	57.75	80	Scott	49.85
17	Bedford	70.85	49	Dyer	57.47	81	Unicoi	49.81
18	Pickett	70.09	50	Haywood	57.38	82	Knox	49.56
19	White	69.96	51	Davidson	56.67	83	Hickman	49.02
20	Marshall	69.87	52	Grundy	56.48	84	Wayne	47.70
21	Hardeman	69.66	53	Campbell	56.27	85	Lake	46.93
22	Putnam	69.29	54	Lawrence	55.59	86	Roane	46.68
23	Obion	68.94	55	Humphreys	55.55	87	Cocke	46.64
24	Bradley	68.90	56	Fayette	55.52	88	Greene	46.05
25	Perry	68.01	57	Madison	55.30	89	Van Buren	44.92
26	McNairy	66.98	58	Henderson	55.15	90	De Kalb	43.18
27	Anderson	66.64	59	Henry	54.80	91	Marion	42.71
28	Robertson	65.27	60	Shelby	54.79	92	Lauderdale	42.20
29	Dickson	63.82	61	Meigs	54.74	93	Lincoln	39.00
30	Monroe	63.73	62	Cheatham	54.55	94	Cumberland	26.17
31	Sullivan	63.58	63	Franklin	54.51	95	Lewis	Incomplete
32	Carroll	63.49	64	Hamilton	54.48			
							State Average	57.55

Source: Census data from United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

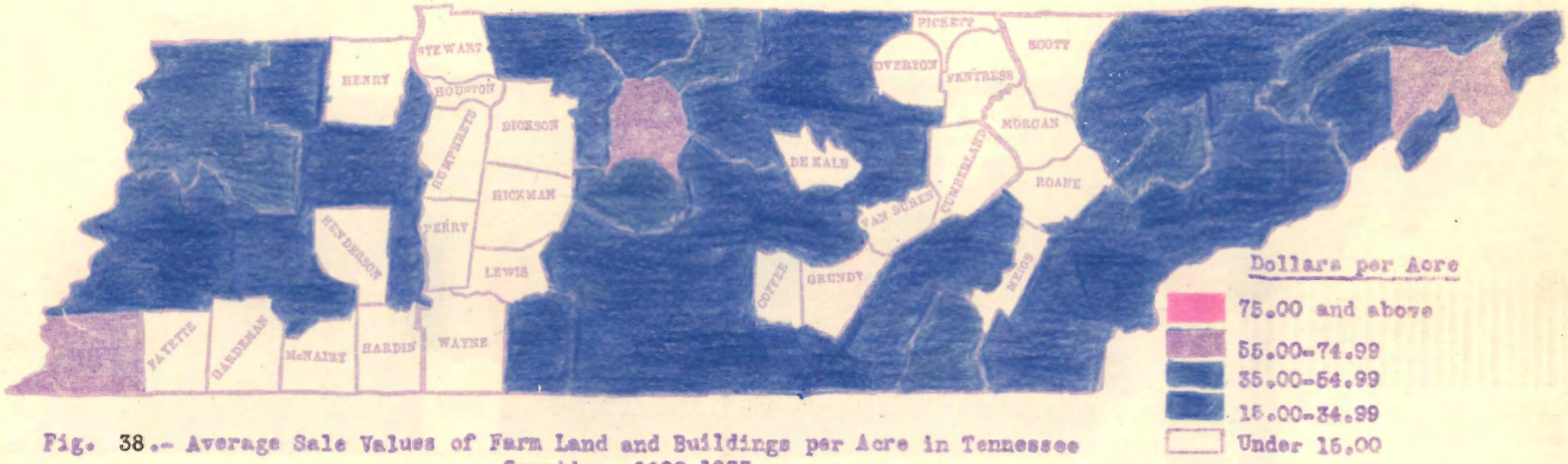


Fig. 38.- Average Sale Values of Farm Land and Buildings per Acre in Tennessee Counties, 1928-1933.

Based on Table LVII.



Fig. 39.- Census Values of Farm Land and Buildings per Acre in Tennessee Counties, 1930.

Based on Table LVIII.

$5.98 per acre in Cumberland County (Table LVII). The average sales value for the state was $23.76 per acre. Only six counties had an average value per acre of more than $50. Census values ranged from $108.67 per acre in Shelby County to $14 per acre in Fentress County (Table LVIII). The average census value for the state was $41.28 per acre.

Since sale values were only 58 per cent of census values in Tennessee, it is evident that census estimates were very much too high or the sale values have not been representative of all farms. Each of these factors probably contributes to the discrepancy between the two sets of values. The number of sales used in computing average values has been large enough to lead one to believe that the farms sold should be fairly representative of all farms in each county. The farms sold might be better or poorer farms than the average in the county, but personal observation in a limited area indicates that the farms sold have been fairly representative of all farms.

Average values have been based on voluntary sales. It is generally known, however, that many sales have been made voluntarily in order to avoid formal foreclosure proceedings. Some farmers who have been unable to meet their financial obligations have preferred to voluntarily dispose of their farms in a manner approved by their creditors, rather than have foreclosure proceedings instituted. This type of sale, which is almost a forced sale, may have resulted in lower values than would have been received had the sale been purely a voluntary transaction between a willing seller and buyer.

It also seems very likely that farmers have tended to overestimate

Table LVII.

AVERAGE SALE VALUES OF FARM LAND AND BUILDINGS PER ACRE,
IN TENNESSEE COUNTIES, 1928-33

Rank	County	Av. Value Per Acre	Rank	County	Av. Value Per Acre	Rank	County	Av. Value Per Acre
1	Washington	$67.26	33	Rutherford	$25.73	65	Lincoln	$15.70
2	Carter	63.75	34	Sevier	25.02	66	Lawrence	15.69
3	Davidson	61.28	35	Weakley	24.12	67	Cannon	15.67
4	Shelby	59.66	36	Claiborne	23.96	68	Marion	15.47
5	Knox	51.29	37	Lauderdale	23.80	69	Bledsoe	15.01
6	Sullivan	50.90	38	Haywood	23.67	70	Henry	14.83
7	Hawkins	48.22	39	Putnam	23.18	71	Meigs	14.83
8	Sumner	46.01	40	Bradley	23.11	72	Overton	14.47
9	Hamblen	40.20	41	Unicoi	22.95	73	Coffee	14.46
10	Lake	39.79	42	Macon	22.88	74	Fayette	14.41
11	Williamson	39.66	43	Polk	22.69	75	DeKalb	14.22
12	Dyer	37.37	44	Anderson	22.22	76	Roane	14.16
13	Obion	36.81	45	Loudon	21.91	77	Perry	13.91
14	Hamilton	35.75	46	Cocke	21.77	78	Humphreys	13.66
15	Gibson	35.27	47	Benton	21.53	79	Dickson	13.53
16	Crockett	34.49	48	White	20.71	80	Grundy	13.28
17	Robertson	33.69	49	Franklin	20.45	81	Pickett	12.54
18	Trousdale	31.36	50	Montgomery	19.45	82	Stewart	12.42
19	Johnson	30.95	51	Moore	19.45	83	Hardeman	12.17
20	Jefferson	30.73	52	Grainger	19.40	84	McNairy	11.83
21	Wilson	30.34	53	Monroe	18.89	85	Hardin	10.82
22	Greene	29.55	54	Cheatham	18.64	86	Hickman	10.82
23	Bedford	29.54	55	Rhea	18.17	87	Henderson	10.75
24	Tipton	29.42	56	Campbell	17.71	88	Houston	10.28
25	Maury	29.22	57	Hancock	17.34	89	Morgan	9.24
26	Giles	28.67	58	Union	17.30	90	Scott	8.62
27	Marshall	28.53	59	Chester	17.16	91	Fentress	8.51
28	Blount	27.72	60	Clay	16.98	92	Van Buren	7.21
29	Jackson	27.53	61	Sequatchie	16.89	93	Wayne	7.07
30	Madison	27.15	62	Warren	16.39	94	Cumberland	5.98
31	McMinn	27.09	63	Carroll	16.09	95	Lewis	--
32	Smith	26.53	64	Decatur	15.96			
							State Average	$23.76

Table LVIII.

CENSUS VALUES OF FARM LAND AND BUILDINGS PER ACRE,
IN TENNESSEE COUNTIES, 1930

Rank	County	Av. Value Per Acre	Rank	County	Av. Value Per Acre	Rank	County	Av. Value Per Acre
1	Shelby	$108.67	33	Bedford	$ 41.69	65	Coffee	$ 26.75
2	Davidson	108.12	34	Haywood	41.21	66	Warren	26.18
3	Knox	103.48	35	Loudon	40.90	67	Cannon	26.01
4	Washington	89.11	36	Wilson	40.87	68	Fayette	25.95
5	Lake	84.78	37	Marshall	40.87	69	Polk	25.73
6	Sullivan	80.04	38	Lincoln	40.24	70	Bledsoe	25.38
7	Carter	77.90	39	Weakley	40.23	71	Carroll	25.33
8	Hamblen	68.14	40	Giles	38.43	72	Humphreys	24.58
9	Hamilton	65.60	41	Montgomery	37.55	73	Grundy	23.50
10	Dyer	65.02	42	Franklin	37.50	74	Stewart	23.49
11	Greene	64.15	43	Marion	36.22	75	Clay	22.94
12	Jefferson	60.12	44	Rhea	36.04	76	Chester	22.87
13	Johnson	59.56	45	Cheatham	34.16	77	Cumberland	22.85
14	Gibson	58.43	46	Union	33.90	78	Hickman	22.07
15	Sumner	58.19	47	Bradley	33.54	79	Hardin	21.47
16	Crockett	57.67	48	Putnam	33.45	80	Dickson	21.19
17	Lauderdale	56.38	49	Anderson	33.34	81	Perry	20.44
18	Obion	53.39	50	Jackson	33.32	82	Henderson	19.49
19	Blount	53.19	51	Moore	32.93	83	Lewis	18.84
20	Trousdale	52.94	52	DeKalb	32.92	84	Morgan	18.35
21	Williamson	52.76	53	Grainger	32.83	85	Overton	17.95
22	Robertson	51.60	54	Sequatchie	32.08	86	Pickett	17.88
23	Maury	49.62	55	Hancock	32.06	87	Houston	17.80
24	Madison	49.08	56	McMinn	31.81	88	McNairy	17.65
25	Tipton	48.85	57	Campbell	31.47	89	Decatur	17.48
26	Rutherford	48.04	58	Roane	30.33	90	Hardeman	17.46
27	Cocke	46.67	59	Monroe	29.64	91	Benton	17.40
28	Unicoi	46.07	60	White	29.60	92	Scott	17.28
29	Claiborne	45.74	61	Lawrence	28.21	93	Van Buren	16.05
30	Hawkins	44.41	62	Macon	27.45	94	Wayne	14.82
31	Smith	42.17	63	Meigs	27.09	95	Pentress	14.00
32	Sevier	42.00	64	Henry	27.05			
							State Average	$41.28

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

the values of their farms. Russell has explained the process of valuation in a manner which should help to support this contention.

> The word "value" ordinarily implies exchange value, commonly expressed as market value. The market value or price of land means the rate at which it exchanges for other commodities, usually expressed in terms of money; it is simply the market quotation. Subjective value refers to the relative importance attached by an individual to a unit of any commodity; it therefore relates to objective value only insofar as valuations expressed by others affect one's feelings and preference.
>
> The process of valuation takes place in the minds of persons who have something to sell or who are considering buying something. The prospective buyer or seller, in making up his valuation of what a good is worth, is influenced by such factors as his supply, his demand, other supply, other demand, custom, display, utility of good, utility of money which will be exchanged, opportunity for substitutes, and cost of production. The buyer sets the upper limit of price, that above which he will not buy, and the seller sets the lower limit, or that below which he will not sell. The final price, or market value, will usually be different from both the buyer's and seller's subjective valuation and will be between the two. Just where, between the two limits, it will be depends upon the relative bargaining ability of the buyer and the seller. Subjective valuation, then, is the first step in exchange of goods and price-making. Bargaining is the second step and results in price.(3)

Census values of farm land and buildings are not the result of any such process of valuation. They represent the farmers' estimates of the values of their properties. As such, they are likely to be considerably higher than they would be after being subjected to the process of bargaining.

Thus, it seems that neither set of values is highly accurate. When land values based on either actual sales or the Census are used, their limitations and inaccuracies should be taken into consideration and allowances made for same when considered necessary.

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(3) Russell, B. A., An Investigation of Farm Real Estate Values in Anderson County South Carolina, pp. 1-2.

Johnson has compared sale values of farm real estate and census values in Minnesota. His conclusions are presented here.

> The general conclusion may be drawn that the average values of farm land and buildings reported in the census approximate quite closely the average sale prices of farm real estate in the older and better developed agricultural regions like Southeastern and Southwestern Minnesota. In the newer regions, where agricultural development is not far advanced, average census values are higher than average sale prices. This is particularly true in the cut-over areas of Northern Minnesota. In these regions census values are considerably higher than sale prices of farm land.(4)

Chambers has compared sale values with census values in several areas in the United States, in 1920. He concluded that "the census average values closely approximate the average sale prices in all regions except those in which the land boom was most intense".(5)

Comparison of Sale Values and Crop Reporter Values of Farm Real Estate in Tennessee

The United States Department of Agriculture publishes, annually, index numbers of estimated value per acre of farm real estate, by geographic divisions and states. The Department has not made a practice of publishing the dollar figures, but has used the index for purposes of publication. The reasons for this practice, as given by Mr. B. R. Stauber, Agricultural Economist in the Bureau of Agricultural Economics, are three fold:

> 1. A considerable part of the basic information upon which our index numbers are based is secured from crop reports. It is fairly well established that crop reporters' farms are somewhat

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(4) Johnson, E. C., "A Comparison of Sale Values of Farm Real Estate and Census Values in Minnesota", Journal of Farm Economics, Vol. XV, No. 1, p. 174. The American Farm Economic Association, 1933.
(5) Chambers, Clyde R., Relation of Land Income to Land Value, p. 12.

larger and somewhat higher valued than the average of all farms. For this reason, the average values reported by crop reporters may be somewhat greater than the average of all farms in the community, as indicated, for example, by the Census. We have felt it best, therefore, to refrain from publishing the dollar figures for the reason that they doubtless would be interpreted by some as being comparable to a Census figure, when as a matter of fact, they are not directly comparable. As long, however, as the relative changes are accurately reflected, the actual level of values of the series used in the index is of secondary importance.

2. A comparison of relative changes between states is easier in terms of an index than in terms of actual dollars.

3. It is believed that misinterpretation will be less frequent when the data are published as indexes than when published in terms of dollars. For example, a $10 decline in the value of Iowa land is quite a different thing than a $10 decline in the value of Mississippi land, and a 10 per cent decline in Iowa land would be very different in terms of dollars than a 10 per cent decline in Mississippi land, yet these differences are not always recognized by those who would compare the change in values in one state with those in another.(6)

A comparison of average value per acre of farm land and buildings in Tennessee, as reported by crop reporters, the Census, and actual sales is shown for a period of years in Fig. 40 and Table LIX. These figures are presented purely for reference purposes, since the explanation for the difference between sale values and crop reporter values has been included above and a comparison of sale values and census values was presented in a preceding discussion. Census values have been considerably higher than sale values in every census year since 1900.

In general, the trend of sale values and crop reporter values has been in the same direction, although there have been exceptions, especially during the period from 1922 to 1927.

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(6) Stauber, B. R., a letter to the Department of Agricultural Economics, University of Tennessee, June 13, 1935.

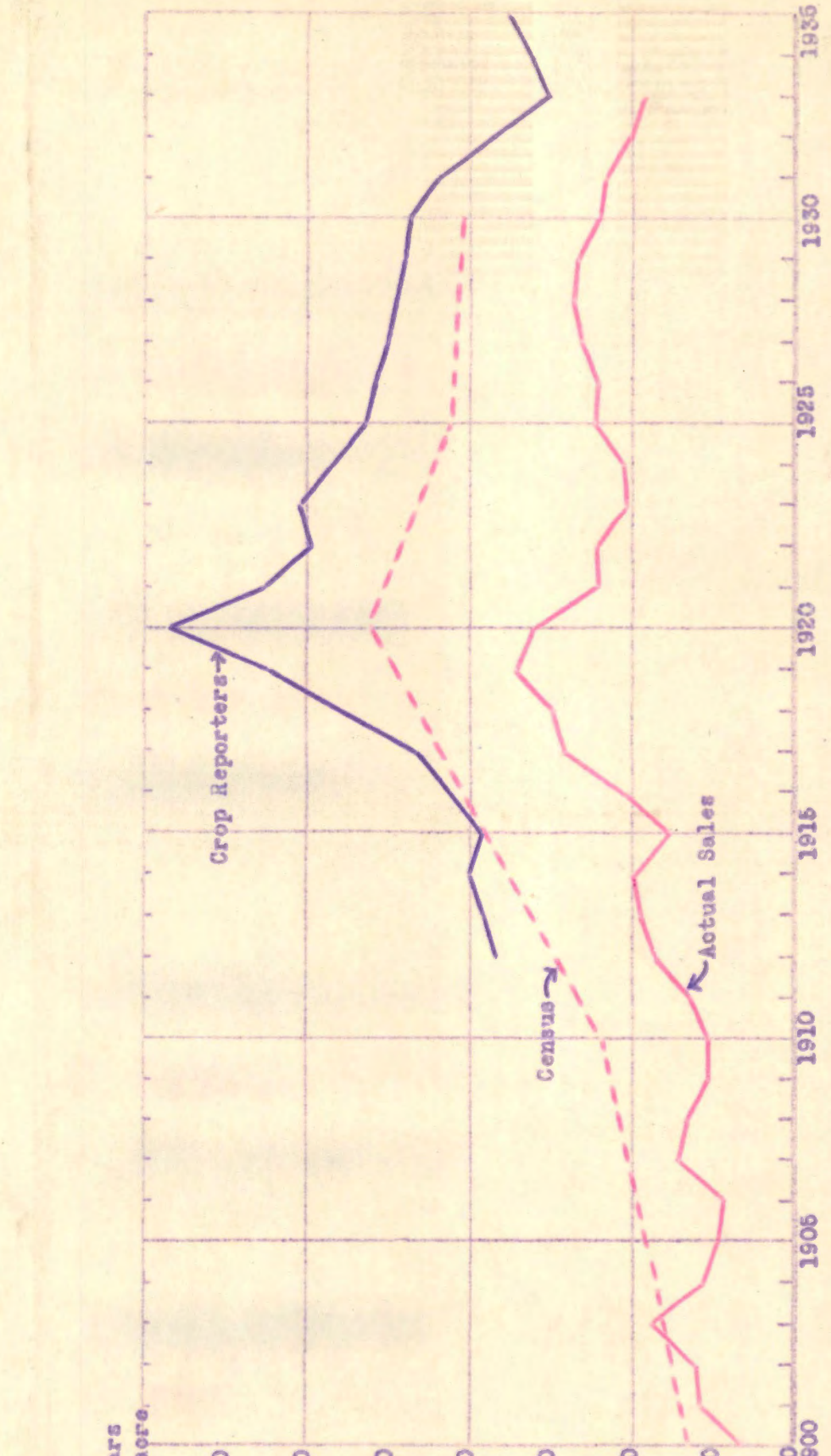


Fig. 40. - Comparison of Average Value per Acre of Farm Land and Buildings in Tennessee, as Reported by Different Sources, 1900-1935

Based on Table LIX.

Table LIX.

AVERAGE VALUE PER ACRE OF FARM LAND AND BUILDINGS IN TENNESSEE, AS REPORTED BY DIFFERENT SOURCES, 1900-1935

Year	Average Value per Acre As Reported By			Year	Average Value per Acre As Reported By		
	Actual Sales	Crop Reporters	Census		Actual Sales	Crop Reporters	Census
1900	$ 6.67	$ --	$13.03	1918	$29.78	$55.72	$ --
1901	11.76	--	--	1919	34.21	64.84	--
1902	12.01	--	--	1920	32.02	77.00	52.53
1903	17.72	--	--	1921	24.29	65.00	--
1904	11.26	--	--	1922	24.30	59.20	--
1905	9.56	--	--	1923	20.72	60.97	--
1906	8.87	--	--	1924	21.02	56.86	--
1907	14.36	--	--	1925	24.71	52.63	42.14
1908	13.23	--	--	1926	24.34	51.54	--
1909	10.69	--	--	1927	26.28	50.00	--
1910	10.66	--	23.97	1928	27.14	49.00	--
1911	12.97	--	--	1929	26.99	48.00	--
1912	17.24	36.96	--	1930	24.30	47.50	41.28
1913	19.00	38.50	--	1931	23.40	44.00	--
1914	19.95	40.04	--	1932	20.35	36.92	--
1915	15.32	38.50	--	1933	18.86	30.25	--
1916	20.96	42.55	--	1934		32.49	--
1917	28.33	46.61	--	1935		35.00	

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture, Vol. IV, p. 74.
Stauber, B. R., a letter dated June 13, 1935.

Chapter VII.

SOME FACTORS AFFECTING FARM REAL ESTATE VALUES

The underlying principles involved in the valuation of land are the same as those met with in placing a price on any commodity. Demand and supply are the governing factors regardless of whether the commodity to be valued is a farm or a bushel of wheat. When agricultural land is considered, land income is the controlling factor on the side of demand. This income varies directly with the price of farm products. As farm prices climb, the income from land increases, the ownership of the land becomes more prized, and the consequent bidding raises values. When a slump in prices of agricultural products occurs, the situation is reversed. But it is necessary to go another step in the analysis and find what controls agricultural prices. In the last analysis, it is the demand of the population for food and other farm products. The size of the population, then, and its rate of growth are most important in determining demand for land. This statement requires some modifications. The wealth and purchasing habits of the population must be considered as well as its size. The extent of the market for farm products must also be considered.(1)

A number of other factors may or may not exert a considerable influence upon the prospective buyer and seller. Land values may be determined in part by anticipated future returns in the form of rent and unearned increment, both of which are influenced by prevailing economic conditions. Other factors besides earning capacity affect the value of

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(1) Howe, Harold, Farm Land Values in Kansas, p. 1.

local farm real estate, among which are (1) the kind of people living in the community, (2) the location of schools and churches, (3) the distance to markets, (4) the kinds of public roads, and (5) the amount of property tax levied.(2) Local factors such as weather, pests, etc., are sometimes of importance.

It will be impossible to include in this report a very extensive study of the factors affecting farm real estate values. However, the relation of land income to land value will be studied briefly. Information is also available which will permit a study of the relation of the value of farm buildings to the value of farm land.

Relation of Land Income to Land Value in 1930

Land incomes as we know them are either rising or falling; they do not continue the same year after year. Under conditions of changing land income four questions arise: (1) What is the relationship between land income and land value at a given time? (2) What is the long-time tendency in this relationship? (3) What is the anticipated relationship between the value at a given period and incomes of all later periods? (4) What is the actual relationship between the value at a given period and the incomes of later periods?(3) Information is available for a study of the relationship between land income and land value in Tennessee, in 1930. Adequate data are not available for the study of the other three questions.

Cash Rent as a Measure of Land Income. Land income may be defined

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(2) Russell, B. A., An Investigation of Farm Real Estate Values in Anderson County South Carolina, p. 4.
(3) Chambers, Clyde R., Relation of Land Income to Land Value, p. 1.

as the annual amount which land with all its improvements and the home advantages attached thereto earns. Cash rent is the amount paid each year by a tenant to a landlord for the use of a farm. It includes payments for the land, the improvements, and the home advantages afforded by a farm.

The cash-rent data obtained by the Census Bureau are gross cash rents. Since land values are based on net earnings of land, it is necessary to reduce gross cash rents to a net basis if they are to be used to accurately measure land income. In order to reduce gross cash rents to a net basis, taxes and depreciation must be deducted. However, gross cash rents may, in the absence of the data necessary for calculating net cash rents, be used as an approximate measure of land income.

The 1930 Census presents cash-rent data for two classes of tenants, namely, (1) cash tenants related to landlord and (2) cash tenants not related to landlord. The average cash rent per acre paid by tenants related to landlord was $2.29. Tenants not related to landlord paid an average cash rent of $2.99 per acre.(4) This relationship does not exist in all counties, but a similar relationship would have been expected in all counties if the number of cash rented farms had been very large. In several of the counties the number of cash rented farms was very small, and one must be very cautious in using the data for studies in individual counties. When a group of counties is used, however, the number of farms becomes large enough to give a fairly

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(4) United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series, p. 38.

representative sample, and one may feel justified in drawing certain conclusions on the basis of the data. In this study only the data obtained from tenants not related to landlord is used, since these data more closely approximate the earning capacity of the farms than do the data which include tenants related to landlord.

Cash Rent per Acre in Tennessee Counties, 1930. The average cash rent per acre paid by cash tenants not related to landlord, in Tennessee counties, is illustrated in Fig. 41 and the counties ranked from high to low in Table LX. Cash rent per acre ranged from $9.37 in Lake County to $0.14 in Van Buren County. The Census reported only two cash tenants in Van Buren County. Nineteen tenants, not related to landlord, in Rhea County paid an average cash rent of only $0.26 per acre. Seventy-five tenants in Scott County paid an average cash rent of only $0.34 per acre for 6,188 acres of farm land.(5) Cash rents were less than $1.00 per acre in 12 counties, $1.00 to $2.00 per acre in 37 counties, $2.00 to $3.00 per acre in 23 counties, $3.00 to $4.00 per acre in 12 counties, $4.00 to $5.00 in six counties, $5.00 to $6.00 in three counties, $6.41 in one county, and $9.37 in one county.

The highest rents were paid in the counties of extreme West Tennessee and in Davidson, Trousdale, Union, and Carter Counties. A probable explanation for the high rents in Carter and Union Counties is that only a small number of farms were rented for cash and these farms were above the average in value. Land values were higher in Davidson and Trousdale Counties than in the surrounding counties; therefore, cash rents were higher in those two counties. Land values were comparatively high in

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(5) United States Bureau of the Census, op. cit., p. 45.



Fig. 41. Average Rent Per Acre Paid by Cash Tenants Not Related to Landlord, in Tennessee Counties, 1930

Based on Table LX.

Table LX.

AVERAGE RENT PER ACRE PAID BY CASH TENANTS NOT RELATED TO LANDLORD, IN TENNESSEE COUNTIES, 1930

Rank	County	Rent Per Acre	Rank	County	Rent Per Acre	Rank	County	Rent Per Acre
1	Lake	$9.37	33	Maury	$2.53	65	Hickman	$1.52
2	Dyer	6.41	34	Fayette	2.50	66	Henderson	1.51
3	Shelby	5.65	35	Smith	2.49	67	Macon	1.43
4	Lauderdale	5.36	36	Robertson	2.46	68	Bradley	1.42
5	Crockett	5.28	37	Warren	2.45	69	Campbell	1.36
6	Obion	4.65	38	Grainger	2.43	70	Cheatham	1.33
7	Trousdale	4.54	39	Carroll	2.41	71	McNairy	1.31
8	Gibson	4.53	40	Wilson	2.33	72	Bledsoe	1.30
9	Union	4.41	41	Lincoln	2.31	73	Sevier	1.29
10	Carter	4.36	42	Marshall	2.25	74	Meigs	1.23
11	Davidson	4.10	43	Franklin	2.24	75	Monroe	1.23
12	Jefferson	3.95	44	Bedford	2.13	76	Coffee	1.18
13	Tipton	3.71	45	McMinn	2.07	77	Benton	1.14
14	Haywood	3.69	46	Hamilton	2.01	78	Dickson	1.10
15	Marion	3.49	47	Sullivan	1.99	79	Houston	1.09
16	Knox	3.43	48	Grundy	1.97	80	Lewis	1.09
17	Greene	3.42	49	Loudon	1.95	81	Anderson	1.05
18	Madison	3.29	50	Montgomery	1.94	82	Fentress	1.00
19	Johnson	3.28	51	Moore	1.94	83	Roane	1.00
20	Rutherford	3.27	52	Hardeman	1.91	84	White	.91
21	Sumner	3.26	53	Decatur	1.88	85	Claiborne	.84
22	Hamblen	3.17	54	Cannon	1.79	86	Sequatchie	.84
23	Williamson	3.12	55	Blount	1.78	87	Polk	.78
24	Washington	2.91	56	Clay	1.73	88	Hancock	.72
25	Perry	2.90	57	Putnam	1.72	89	Wayne	.62
26	Stewart	2.85	58	Overton	1.65	90	Cumberland	.59
27	Pickett	2.82	59	Lawrence	1.62	91	Morgan	.57
28	DeKalb	2.68	60	Unicoi	1.62	92	Cocke	.49
29	Jackson	2.64	61	Hawkins	1.60	93	Scott	.34
30	Giles	2.62	62	Henry	1.60	94	Rhea	.26
31	Weakley	2.62	63	Chester	1.58	95	Van Buren	.14
32	Humphreys	2.58	64	Hardin	1.56			
							State Average	$2.99

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, Second Series.

the West Tennessee counties where cash rents were highest; but values were not high enough to justify the difference in cash rents between the West Tennessee counties and other sections of the state. Other factors have been instrumental in determining cash rents in the West Tennessee section. These factors will be discussed in the following section, in connection with the discussion of ratio of rent to value of land.

Ratio of Cash Rent to Value of Farm Land and Buildings in Tennessee Counties, 1930. The 1930 Census gives the value of land and buildings on farms operated by cash tenants, but the data are not further classified to give values on farms operated by tenants related to landlord and tenants not related to landlord. Therefore, in determining the ratio of cash rent to value of land and building, it is necessary to use cash rent data representative of tenants not related to landlord and value data representative of all cash tenant farms. It is believed that the difference in average value per acre on farms operated by tenants not related to landlord and farms operated by tenants related to landlord is very small. Chambers, in a rather extensive study including counties in several different sections of the United States, found that lower rents were not paid by the kinship group of tenants because they were leasing a poorer grade of farms, for the rents on the kinship farms were lower relative to the value of the land, than those on the nonkinship farms.(6)

The ratio of cash rent to value of land and buildings, on farms

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(6) Chambers, Clyde R., Relation of Land Income to Land Value, p. 55.

operated by tenants not related to landlord, is illustrated in Fig. 42 and the counties have been ranked from high to low in Table LXI. The ratio ranged from 19.96 per cent in Union County to .40 per cent in Van Buren County. Since the number of farms operated by cash tenants is very small in some counties, the data for individual counties cannot be considered highly accurate. The highest and lowest ratios may be gross misrepresentations. In many counties, however, the number of farms operated by cash tenants is large enough to warrant the drawing of conclusions concerning the situation in individual counties. In general, it is believed that the data, other than a very few extreme items, are reasonably representative of cash rents in Tennessee.

The ratio of rent to value is highest in the West Tennessee area. In most of this area the proportion of cash-tenant farms operated by negroes is quite large. Chambers has found that the influence of race in the Cotton Belt is of considerable importance in determining the amount of cash rent paid for land in that area. Some of his conclusions are presented here.

> Race is important because of the social, economic, and legal factors associated with it. In the South the negro constitutes a large part of the tenant class. Many of them are irresponsible, inefficient, and work under a high degree of supervision, and these conditions have a great influence on the rents paid by the colored tenants.
>
> In the South the plantation owner is more than a landlord. He is the manager of his plantation and devotes a large part of his time and energy in supervising and directing the work of his tenants. These tenants on the plantations are mostly negroes, for very few white tenants are found there. The negro tenants, for the most part, do not work effectively except under a high degree of supervision. This supervision the landlord gives and is paid for it in the form of higher rents.



Fig. 42. Ratio of Cash Rent to Value of Land and Buildings, On Farms Operated by Cash Tenants Not Related to Landlord, in Tennessee Counties, 1930.

Based on Table LV.

Table LXI.

RATIO OF CASH RENT TO VALUE OF LAND AND BUILDINGS , ON FARMS OPERATED BY CASH TENANTS NOT RELATED TO LANDLORD, TENNESSEE COUNTIES, 1930

Rank	County	Ratio	Rank	County	Ratio	Rank	County	Ratio
1	Union	19.36	33	Houston	6.87	65	Wayne	5.02
2	Stewart	10.45	34	Madison	6.89	66	Coffee	4.98
3	Hardeman	10.37	35	Giles	6.72	67	Bledsoe	4.76
4	Fayette	10.07	36	Cannon	6.70	68	Davidson	4.72
5	Crockett	10.03	37	Weakley	6.59	69	Lewis	4.70
6	Pickett	9.87	38	Lincoln	6.42	70	Hamblen	4.64
7	Lake	9.79	39	Smith	6.18	71	Bradley	4.62
8	Haywood	9.61	40	Putnam	6.18	72	Grainger	4.59
9	Roane	9.52	41	Macon	6.15	73	Monroe	4.49
10	Marion	9.45	42	Montgomery	6.10	74	Morgan	4.26
11	Decatur	9.45	43	Dickson	6.10	75	Loudon	4.08
12	Lauderdale	9.41	44	Fentress	5.97	76	Cumberland	4.02
13	Tipton	9.36	45	Cheatham	5.95	77	Hawkins	3.95
14	Chester	9.31	46	Lawrence	5.94	78	Blount	3.94
15	Henderson	9.06	47	McMinn	5.83	79	Unicoi	3.85
16	Carroll	8.63	48	Bedford	5.80	80	Anderson	3.51
17	Humphreys	8.57	49	Hickman	5.75	81	Sequatchie	3.50
18	Obion	8.51	50	Marshall	5.62	82	White	3.35
19	McNairy	8.25	51	DeKalb	5.61	83	Sullivan	3.26
20	Dyer	8.24	52	Greene	5.59	84	Sevier	3.24
21	Overton	8.23	53	Campbell	5.55	85	Scott	3.16
22	Perry	8.20	54	Warren	5.48	86	Knox	3.11
23	Moore	7.88	55	Benton	5.46	87	Johnson	2.76
24	Grundy	7.79	56	Maury	5.41	88	Hancock	2.67
25	Hardin	7.62	57	Wilson	5.32	89	Polk	2.59
26	Gibson	7.49	58	Clay	5.32	90	Claiborne	2.50
27	Franklin	7.28	59	Carter	5.28	91	Cocke	2.38
28	Jefferson	7.25	60	Williamson	5.28	92	Rhea	2.22
29	Jackson	7.11	61	Meigs	5.27	93	Washington	2.10
30	Trousdale	7.05	62	Robertson	5.27	94	Hamilton	2.02
31	Rutherford	7.04	63	Shelby	5.20	95	Van Buren	0.40
32	Henry	6.96	64	Sumner	5.14			
							State Average	6.45

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series and Second Series.

> In addition to being the active manager of the plantation, the landlord assumes the burden of risk in case of a crop failure or a disastrous drop in cotton prices. Losses due to either of these causes are usually borne by the cash tenant in most places, but not so in the plantation regions of the South. While the cash tenant in the South supplies his own working capital, he is unable to assume these risks. His ability to pay the rent depends entirely upon the success of the cotton crop. If this fails, he has almost no other crops to fall back upon and but little property, so that if he paid the rent he would be forced to sell his working capital to do it. If the landlord forced him to do this he would lose a tenant, and this he can not afford to do. The result is that the landlord frequently takes all or part of the loss. Since the risk involved is considerable because of the great dependence on the cotton crop, the landlord must receive materially higher rents to compensate him for assuming it.
>
> The white tenant in the plantation regions works without supervision and, consequently, pays a rent that is relatively lower than that paid by colored tenants. As a rule, he is in the same situation as the colored tenant in regard to his inability to assume risks. If the crop is poor or prices low, the white tenant, as well as the negro tenant, can not pay the rent and the landlord takes the loss. The white tenant, therefore, has to pay a rent high enough to compensate the landlord for this risk, but he does not have to pay for supervision as the colored tenant does.(7)

The larger number of negro tenants and the greater dependence on a single crop in the West Tennessee counties, as compared with other sections of the state, result in higher cash rents in that area. Rents are lowest in East Tennessee counties, where the percentage of negro tenants is low and a diversified type of farming is carried on.

Relation Between Cash Rent and Value of Land and Buildings, According to Amount of Cash Rent Paid. It is obvious that the amount of the present and anticipated future income has a direct relation to the economic value of farm real estate. This proposition does not hold true in numerous cases

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(7) Chambers, op. cit., p. 56-57.

because of the inability of individuals to forecast accurately future returns. The following discussion is based on a study of the relation between land income, as represented by cash rent, and the value of farm land and buildings, in 1930. The counties were assorted according to cash rent per acre and then placed in the proper group classification.

The relationship between the amount of cash rent and the value of farm real estate per acre is illustrated in Fig. 43 and the data presented in Table LXII. Both census values and sale values are presented. The sale values are the average values of all farms sold at voluntary sales in 1930. They do not represent the sale values of the farms operated by cash tenants. The sale values have been subjected to adjustments, however, to correspond to the difference in value between all farms and farms operated by cash tenants.

The data show a positive relationship between the amount of cash rent and the value of farm real estate. As the cash rent per acre increases the value per acre increases. Sale values increase as cash

Table LXII.

RELATIONSHIP BETWEEN AMOUNT OF CASH RENT AND VALUE OF FARM REAL ESTATE PER ACRE, TENNESSEE, 1930

Cash Rent Per Acre (In Dollars)	Number of Counties	Value of Land and Buildings Per Acre	
		Census	Sales
1.00 and under	14	$17.93	$ 8.19
1.01 - 1.93	32	24.64	14.30
1.94 - 3.99	38	53.09	32.35
4.00 - 5.99	9	65.36	38.53
6.00 and over	2	88.92	48.73

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series and Second Series.

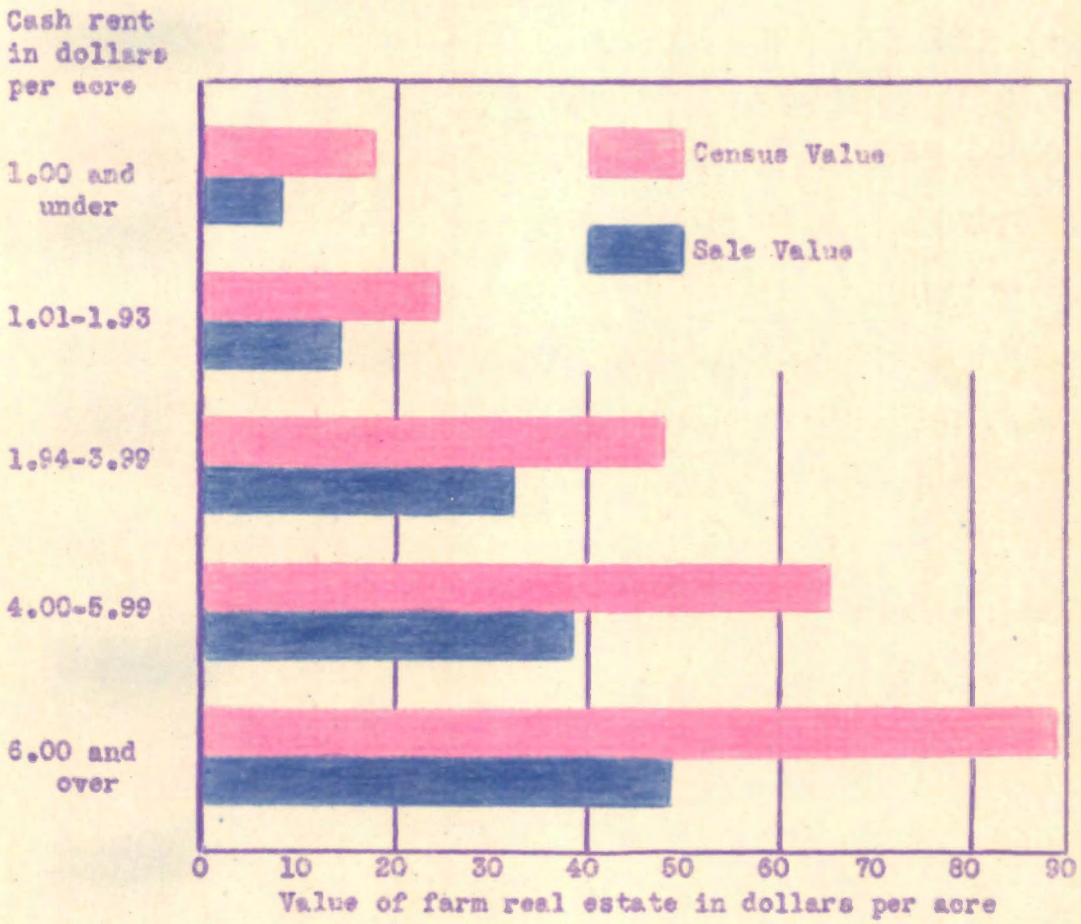


Fig. 43.- Relationship Between the Amount of Cash Rent and the Value of Farm Real Estate per Acre in Tennessee, 1930.

Based on Table LXII.

Sale values increase as cash rents increase, but the values are considerably less than census values and the percentage increases from group to group are less than those based on census values.

The irregular classification of cash rents shown above was used in order to include within each group counties which had similar types of farming or were similar in other respects. Another classification is presented in Table LXIII which permits a more detailed study of the relationship between cash rents and farm land values. Approximately the same relationship is shown as in the previous table, with the exception of a minor change in the two highest rent groups.

Table LXIII.

RELATIONSHIP BETWEEN AMOUNT OF CASH RENT AND VALUE OF FARM REAL ESTATE PER ACRE, TENNESSEE, 1930

Cash Rent Per Acre (In Dollars)	Number of Counties	Value of Land and Buildings Per Acre	Average Cash Rent Per Acre	Ratio or Rent to Value (Per Cent)
Under 1.00	12	$17.15	$ 0.52	3.03
1.00 - 1.99	37	25.42	1.52	5.97
2.00 - 2.99	23	41.12	2.58	6.27
3.00 - 3.99	12	51.92	3.45	7.14
4.00 - 4.99	6	70.35	4.37	6.17
5.00 - 5.99	3	89.92	5.54	6.16
6.00 and over	2	88.92	8.28	9.31

Source: United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series and Second Series.

The value of land and buildings per acre is slightly lower in the highest rent group than in the second highest group. The number of counties represented in the two highest rent groups is so small that such discrepancies may be expected.

These data show that when the cash rent was under $1 per acre the value of land and buildings was about $17. An increase of $1 per acre in the cash rent was accompanied by an increase of $8 per acre in the value of land and buildings. Another increase of $1 per acre in the cash rent, to $2.00 - $2.99 per acre, was accompanied by a further increase of about $16 per acre in the value of land and buildings. The third increase of $1 per acre in the cash rent was accompanied by an increase of about $10 per acre in the value of land and buildings; the fourth by a $19 increase; the fifth by another $19 increase; and the final increase of almost $3 per acre in the cash rent was accompanied by a decrease of $1 per acre in the value of land and buildings.

In general, the ratio of rent to value was lowest in the low rent group, increased as the cash rent per acre increased, and was highest in the high rent group. There was an exception to this consistent increase, the ratio of rent to value being higher in the $3.00 to $3.99 rent group than in the two next higher rent groups.

The relation of the value of land and buildings to cash rent per acre in Tennessee is again illustrated in Fig. 44. A scatter diagram is used, with each dot representing a county. The value of land and buildings per acre is shown on the horizontal scale and the cash rent per acre on the vertical scale. The diagram indicates that there is a postitve relationship between cash rent and value of land and buildings.

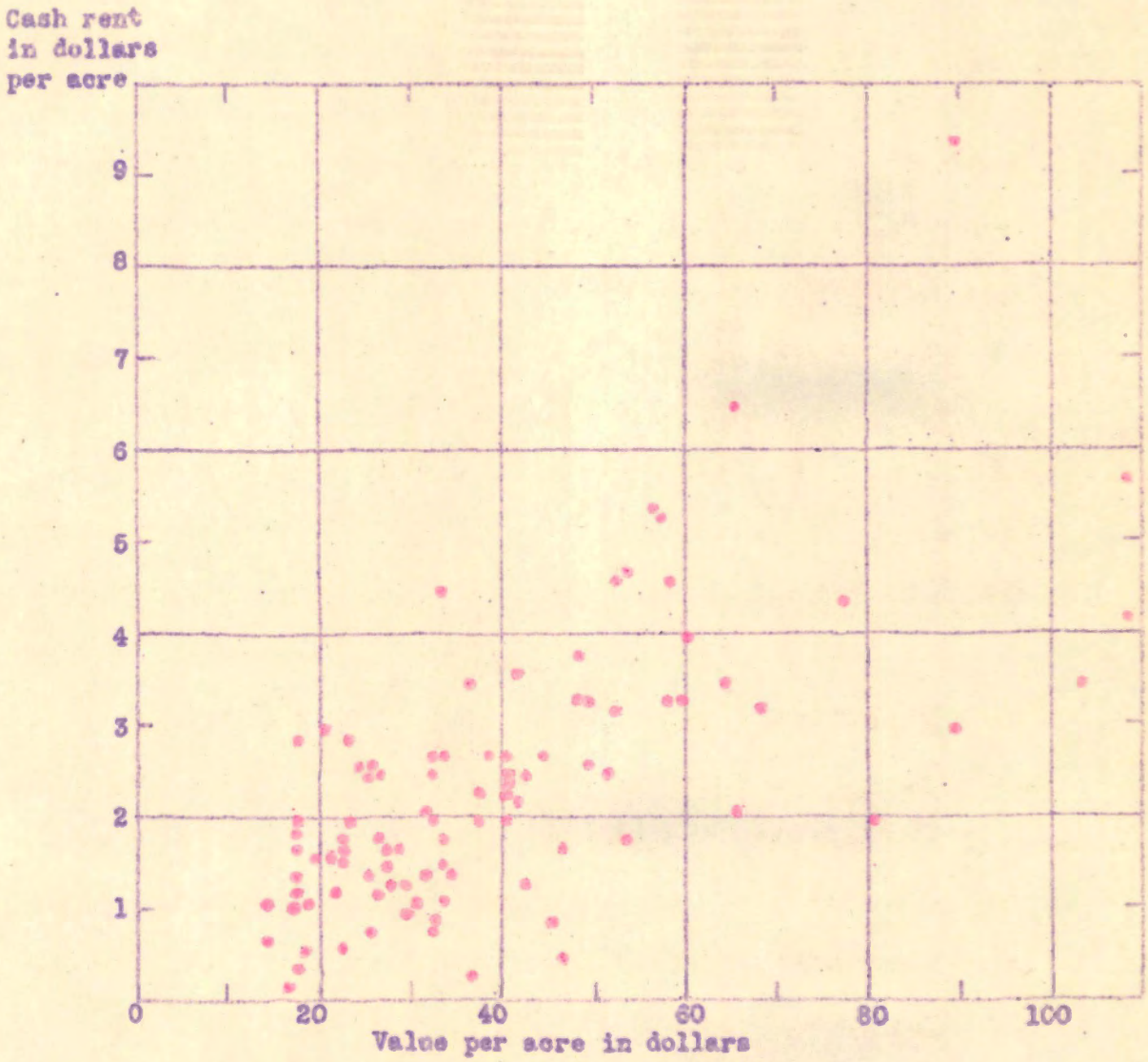


Fig. 44. - Relation of Value of Land and Buildings to Cash Rent per Acre in Tennessee, 1930

Based on Table LX.

Relationship of Farm Buildings to Land Values

The trends of farm building values and farm land values (excluding buildings) have been in opposite directions, in Tennessee, since 1920. The value of farm land per acre decreased 25 per cent from 1920 to 1925 and 7.76 per cent from 1925 to 1930.(8) The value of farm buildings per acre increased 2.06 per cent from 1920 to 1925 and 11.26 per cent from 1925 to 1930. This contrast in movement was largely due to the fact that buildings usually are valued on the basis of something approaching a replacement basis, and building costs during the 1920-30 period were about as high as during the War years.

The result of this opposite movement of building values and land values has been that generally a greater proportion of the total value of the farm is coming to be represented in buildings when the latter are valued on a cost of production basis.

The relation of the value of farm buildings to the value of land alone, in Tennessee, is illustrated in Fig. 45. A scatter diagram has been used to illustrate the relationship. Each dot represents a county. The value of land alone per acre is shown on the horizontal scale and the value of buildings per acre on the vertical scale. The diagram shows that there is very definitely a positive relationship between the value of farm buildings and the value of farm land alone. Lake County is the only county in the state which departs noticeably from the normal relationship. Land values are comparatively high in this county; there is a high percentage of tenancy; a large proportion of the tenants are negroes; and many of the buildings are only shacks.

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(8) United States Bureau of the Census, Fifteenth Census of the United States: 1930, Agriculture - Tennessee, First Series.

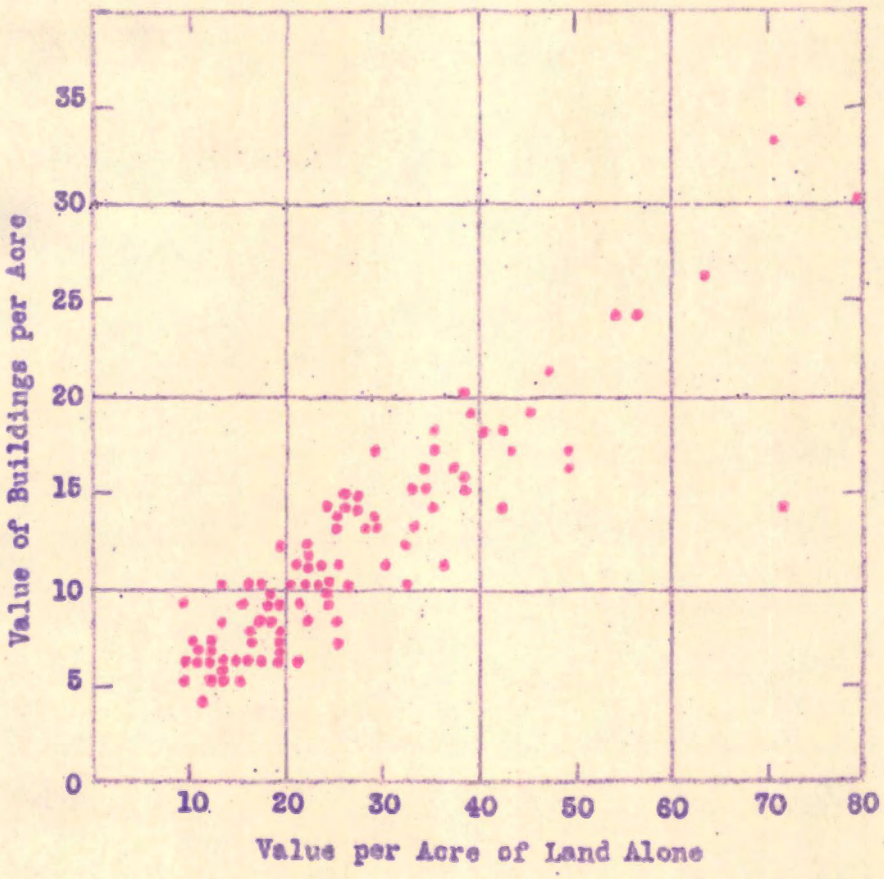


Fig. 45. - Relation of Value of Land Alone to Value of Buildings per Acre in Tennessee, 1930

Based on Tables in Files of Department of Agricultural Economics, University of Tennessee.

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