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THE TENURE STATUS OF FARMWORKERS IN THE UNITED STATES

MAIER, F. H. ; MAITLAND, S. T. ; BOWLES, G. K. 1 OF 1

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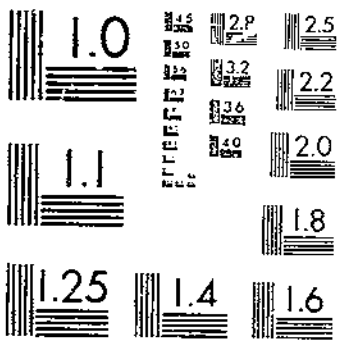

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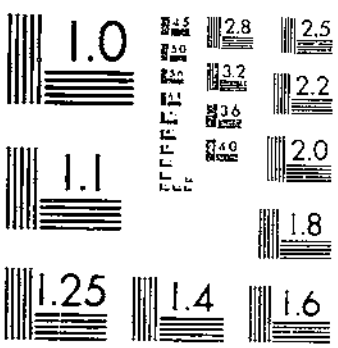

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963-A

THE TENURE STATUS OF FARMWORKERS IN THE UNITED STATES

By Frank H. Maier
Sheriden T. Maitland
Gladys K. Bowles

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PREFACE

The purposes of the study reported here were: First, to describe the farm tenure situation in the United States from 1880 to 1950, the latest year for which the necessary data are available; and, second, to explain the forces that operated during this period to yield the farm-tenure conditions and trends that occurred.

The study extends and broadens the analysis presented in Trends in the Tenure Status of Farm Workers in the United States Since 1880, by C. C. Taylor, L. J. Ducoff, and M. J. Hagood, published by the U.S. Department of Agriculture in 1948. The primary purpose of the 1948 study was to analyze the operation of the so-called agricultural tenure ladder, utilizing a method of analysis suggested by John D. Black and R. H. Allen in an article published in the Quarterly Journal of Economics for May 1937, and entitled, "The Growth of Farm Tenancy in the United States." In the study reported here, data from the 1950 Censuses of Population and Agriculture are used to extend the statistical series on farm-tenure trends presented in the 1948 study. The study also broadens the analysis of causal relations behind observed tenure trends to include factors and details not covered in the earlier report.

The background section was prepared by Frank H. Maier and Sheridan T. Maitland. The latter was also primarily responsible for the section on tenure trends since 1880. The sections on long-run factors in the farm tenure situation, recent improvements in the farm-tenure situation, and farm tenure in the future were primarily the work of Frank H. Maier. Gladys K. Bowles directed the preparation of the cohort and other statistical data.

CONTENTS

THE TENURE STATUS OF FARMWORKERS IN THE UNITED STATES

By Frank H. Maier, Sheridan T. Maitland, and Gladys K. Bowles [1]

SUMMARY

At mid-century, the people of the United States are closer to their farm-tenure goal of owner-operated family farms than ever before.

During the last 75 years, however, the farm-tenure situation first worsened steadily for many years and then began to improve (fig. 1). From 1880 to the 1930's, for the country as a whole, the tenure status of farm people slowly but continuously moved away from the ideal of farm-owner-operatorship. In 1880, about 55 percent of the adult male agricultural work force were owner-operators. By 1930, the comparable figure had dropped to 40 percent. During the 1930's, a dramatic reversal occurred in the half-century trend away from owner-operated family farms. By 1950, owner-operators again made up about the same proportion of the adult male farm work force as in 1880. Between 1950 and 1955, apparently, the proportion of owner-operators increased further.

These data suggest several questions about the forces behind the farm-tenure conditions that existed during the period and the trends that developed. The study reported attempts to answer these major questions: Over the years why have owner-operators not made up a larger proportion of the adult male agricultural work force? After the 1930's, what forces reversed the previous half-century trend away from owner-operated family farms? What farm-tenure developments may be expected in the future?

Since 1880, the proportion of farm owner-operators among the adult male agricultural work force has averaged between 40 and 55 percent. Why has it not been higher? Alternatively, why have tenants, sharecroppers, and farm laborers constituted so large a part of the agricultural labor force? The study reported here concludes that certain long-run considerations have been responsible for these phenomena: (1) For many years, the amount of capital required to own the land and equipment and to meet the operating expenses necessary for an efficient family farm has been large relative to the earning potential of a typical farm family. (2) At times, recurring business depressions have seriously reduced farm incomes and forced farm families to dip into their savings. (3) For more than half a century, agriculture has had more human resources than were needed to carry on production.

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[1] Frank H. Maier, Agricultural Economist, Farm Economics Research Division, Agricultural Research Service; Sheridan T. Maitland, Labor Economist, and Gladys K. Bowles, Analytical Statistician, Farm Population and Rural Life Branch, Agricultural Marketing Service.

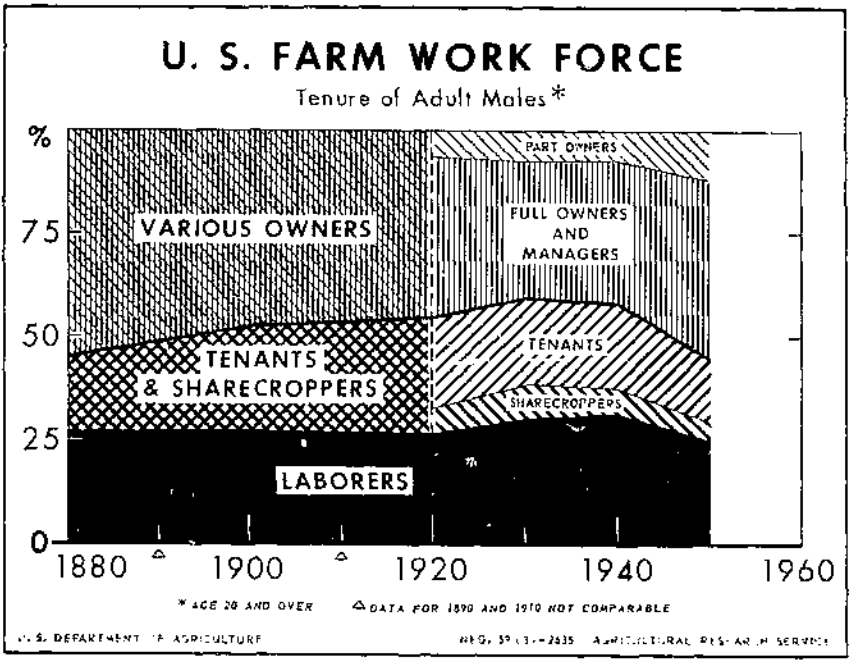

Figure 1

This imbalance of agricultural labor resulted from certain underlying developments that had been going on for several decades. One of these long-term developments was the slow downward trend of exports of farm products. Another and even more important long-run change was the secular increase in productivity per person working in agriculture. This increase in productivity per farmworker outstripped the increase in domestic demand for farm products that resulted jointly from (1) growth in our population (and therefore in the number of domestic consumers) and (2) increases in per capita domestic demand for farm products as real incomes per person advanced. Thus, the number of persons needed in the agricultural labor force has declined slowly but steadily. Meanwhile, the numbers of children reared by farm people have more than replaced their parents' numbers.

Hence for many decades, farm communities have maintained a continuous net migration of substantial numbers of their members into other work. But the combined effect of the long-term forces in agriculture has been of such magnitude that the actual net migration of agricultural workers into other pursuits has not been rapid enough. As a consequence, the tenure status, incomes, and living levels of farm people were lowered, and the difficulty of accumulating the capital necessary for tenure progress was increased.

After the 1930's, what were the forces that reversed the trend away from owner-operated family farms that had been underway for half a century? Certain new developments appear to have produced this change in our farm-tenure situation: (1) Improvements were made in public and private farm-credit institutions. (2) Better

transportation and communication made vocational mobility easier for farm people. (3) After their experiences during World War II and the Korean war, those who remained in agriculture adopted improved farming methods more rapidly, and those who left farming were better able to find other work and to fit into city life. (4) Perhaps most important, the long period of business prosperity and full employment after the early forties not only provided nonfarm job opportunities for those farm people who chose to seek other work; it also meant greatly improved incomes and living levels for those who remained in agriculture. At the same time, individual farm families found it easier to accumulate the net worth necessary for tenure progress.

What about farm tenure in the future? Two considerations are likely to be critical for future farm-tenure developments. (1) In the coming years, will a substantial movement of farm people into other pursuits be required? This will depend on whether technological improvements in farm production continue to outrun the growth in the total population and whether farm families continue to have numbers of children that more than replace their parents. (2) Will our country avoid severe and protracted depressions that would close off nonfarm job opportunities for off-farm migrants and depress the incomes, living levels, and capital-accumulation opportunities of those who remain in farming? The study reported here also points out that several widely held attitudes about farm tenure need to be reexamined. The popular idea of the "agricultural ladder" needs to be changed to recognize that in agriculture there is no longer economic opportunity for *all* the children of farm families. Furthermore, we cannot assume too close a relationship between farm-tenure status and the material welfare of farm families.

THE BACKGROUND

The discussion in this bulletin is divided into five parts. It reviews the background of farm-tenure institutions in the United States; describes tenure trends—national and regional—from 1880 to the 1950's; explains why farm owner-operatorship has not been more general through the years; analyzes the dramatic recovery since the 1930's from the previous half-century trend away from owner-operated family farms; and lists the farm-tenure developments that may be expected in the future.

LAND TENURE DEFINED

Land tenure is the relationship between persons in respect to their rights in the use of land. Although the State reserves to itself for all time several of the various rights relating to the use of land, most of the rights to land are held by individuals under various tenure arrangements.

The owner of a parcel of land controls its management and use until he sells or leases it to another. But the owner's effective latitude of decision-making may be limited considerably, if the land is heavily mortgaged or if he is otherwise heavily in debt.

A tenant exercises many of the managerial functions regarding the operation of the farm during the limited period of the lease. Usu-

ally, he supplies some of the main capital items with which the farm is operated, but the landlord retains the right to make or participate in certain managerial decisions. Depending on the terms of the lease, the uncertainty resulting from variations in prices or yields may be shared jointly by landlord and tenant or borne largely by the tenant.[2]

A sharecropper has the right to make only the more routine decisions. Usually, he supplies none of the capital goods used in farming. His only important contribution to production is his own and his family's labor. Typically, the sharecropper bears part of the uncertainty as to prices and yields that is incidental to farm production.

A hired farm laborer usually works under the direction of the farm operator. His period of employment is only as long as his services are desired by the operator. His rate of pay is that jointly agreed upon by himself and his employer. An increasing number of hired laborers, particularly the migrants, work for a crew leader or labor contractor who bargains with the grower on rates of pay, housing accommodations, working conditions, and so on. Family laborers are members of an owner-operator's or tenant's family who work on the farm, often as a part of the routine of family living and without specific money wages as such.

Tenure of land is important in agriculture because land is limited in supply so far as one or more productive attributes are concerned—location, fertility, or topography, for example. The ways in which land, labor, and capital are combined under varying tenure arrangements affect all members of society by influencing the efficiency of production and the cost of farm products. But farm people are affected even more directly. Tenure arrangements affect not only their incomes and social status but also the whole character of farm life and rural institutions.

THE TRADITION OF OWNER-OPERATED FAMILY FARMS

As the ideal of agriculture in the United States, the family-sized owner-operated farm has its roots in our past. Colonial land policy in general allowed the settler as much land as his financial position or business ability would permit. It tended, therefore, to place land in the hands of farmers of moderate means who were dependent upon family labor (*29, pp. 194, 197*).[3] Thus the colonial patterns of distributing land resulted mainly, though with notable exceptions, in landholding settlers who were in sympathy with the family-farm idea. After the Revolutionary War and the founding of the Republic, our Federal land policy sought consistently to help squatters and homesteaders establish family farms from public lands.

In the United States, most of the advocates of family-sized owner-operated farms have emphasized that these farms should be a means of achieving a better society rather than an end in themselves. Although reverence for agriculture as the most noble of human occupations goes back to antiquity, Thomas Jefferson gave it a uniquely

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[2] In popular usage, the meanings of the terms "tenant" and "tenancy" vary between geographic regions. In the South, the word "tenant" is commonly used to include both sharecroppers and what people in other parts of the country refer to as tenants. In this report, the term "tenants" excludes sharecroppers unless otherwise indicated.

[3] Italic numbers in parentheses refer to Literature Cited, page 76.

American interpretation. He saw the United States as a nation of small landholding farmers. In Jefferson's view, enlightened self-government was based on the independence and self-reliance of the individual, which in turn rested on social equality and economic security. Only one who tilled his own land could have the pride of possession and the sense of economic security of an independent farmer. Hence, agrarianism and private property in farmland were for Jefferson not ends in themselves but the means to democracy and individual freedom (*24, pp. 18–46*).

Although the characteristic view of landownership as the optimum tenure relationship was expressed in terms of the influence of the social environment on the individual, underlying this view was an implicit assumption concerning the impact of the individual's actions on society. With land at first in apparent abundance, it was easy to assume that in pursuing their best interests, land-owning family farmers would automatically fulfill their obligations to society. It was thought that under fee simple ownership with freedom to make economic decisions, the land would be utilized, improved, and conserved satisfactorily, farm units of optimum size would be set up, production would be efficient, and wealth and income would be distributed widely (*29, p. 9*).

In the case of tenancy, however, divergence between freedom of private contract and personal responsibility to society has long been recognized. According to the traditional comparison between ownership and tenancy, tenant farmers are more likely to waste land resources than are owners. This distinction between owner-operators and tenants is even reflected in common law, in which a landlord may bring court action to stop wastage by his tenant but in which society has only limited recourse against a wasteful owner-operator (*29, p. 10*).

THE "AGRICULTURAL LADDER"

Closely related to the ideal of the owner-operated family-sized farm is the concept of an agricultural ladder. According to the idea of the agricultural ladder, a farm youth climbs to owner-operatorship through a succession of all or most of these steps: (1) Working on his parents' farm to get his initial farming experience; (2) working as a hired hand on a neighbor's farm to get more farming experience and to accumulate enough capital to set himself up as a tenant; (3) renting a farm on his own for several years, to get experience as a farm operator and to save enough for a downpayment on a farm; (4) buying a mortgaged farm; and (5) eventually achieving unencumbered farm ownership, by paying off the mortgage over a number of years.

Although the idea of an agricultural ladder is part of American tradition, the term itself first came into use about the time of World War I (*41, 40, 20, 1*). The Census of 1880 had revealed that 1 in 4 farm operators was a tenant, and the censuses that followed showed that this proportion was increasing. The unsettled frontier was disappearing and most good homestead land had been taken up; hence, young people were finding it increasingly difficult to stake out a farm on the remaining public lands. This situation encouraged examination of the difficulty of attaining farm ownership and a search for some way in which to counteract the trend toward tenancy (*28*).

Improving the agricultural ladder was conceived as a means of implementing the policy of owner-operated family-sized farms.

In the section that follows, the general trends in tenure status, national and regional, since 1880 are described, and an attempt is made to extend the appraisal of the functioning of the agricultural ladder contained in a 1948 study (*44*).

TENURE TRENDS SINCE 1880

THE COUNTRY AS A WHOLE

By 1950, the proportion of tenancy and sharecropping among farm operators, which rose as high as 42 percent in the 1930's, had declined to the level in 1880, the first year in which information on tenure was obtained by the census (*53*). Considering the entire adult male agricultural work force (which includes farm laborers as well as owners, tenants and sharecroppers), in 1950 the proportion of owner-operators was again at its 1880 level—54.7 percent of all male farmworkers aged 20 and over. During these 70 years, the proportion of tenants and sharecroppers increased by 1.6 percent of all adult male farmworkers, while the proportion of farm laborers decreased by a corresponding 1.6 percent of the adult male farm work force. The category of "farm laborers" includes hired laborers, unpaid family workers, and foreign nationals working as seasonal migrants.[4] The trends in the proportions of owners, tenants, sharecroppers, and farm laborers in the adult male agricultural work force from 1880 to 1950 are shown in table 1 and figure 1.

TABLE 1.—TENURE TRENDS: *Male agricultural workers aged 20 and over, United States, 1880–1950* [1]

Year [2]	Owners			Tenants and sharecroppers			Farm laborers [3]
	Total	Full	Part	Total	Tenants	Sharecroppers	
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
1880	54.7			18.7			26.6
1900	47.4			25.6			27.0
1920	45.1	38.8	6.3	28.3	22.0	6.3	26.6
1930	40.3	33.0	7.3	29.5	21.1	8.4	30.2
1940	41.3	34.2	7.1	27.4	21.1	6.3	31.3
1950	54.7	42.5	12.2	20.3	15.6	4.7	25.0

[1] See Methodology, p. 80.
[2] Data for 1890 and 1910 not comparable.
[3] Includes hired farmworkers and unpaid family workers.

[4] Foreign nationals working on farms in the spring of 1950 were enumerated in the 1950 Census of Population (*54*) and were counted in the 1950 Census of Agriculture (*53*). Their numbers therefore affect data on the tenure composition of the agricultural work force for 1950 for the country as a whole and especially for certain regions and States.

Loss of ownership status and the corresponding rise in tenancy were almost continuous from 1880 to 1930. The low point in ownership status since 1880 was reached in the 1930's. Although intercensal information does not provide the ratio of owners to all farmworkers, we know from the agricultural census of 1935 that the number of tenant and sharecropper farmers increased until 1935. We know also that it has declined rapidly since that time. The upturn in farm ownership probably came in the middle thirties. Between 1880 and 1930, the proportion of owners among male farmworkers 20 years old and over declined from 54.7 to 40.3 percent. This 14.4 percent decline was distributed as follows: 7.3 percent between 1880 and 1900; 2.3 percent between 1900 and 1920; and 4.8 percent between 1920 and 1930. Expressed in similar terms, the rise in ownership status between 1930 and 1950 was 14.4 percent. Thus, the relative decline in ownership that occurred in the half-century between 1880 and 1930 was reversed by 1950.

From 1880 to 1930, the proportion of tenants and sharecroppers in the adult male agricultural work force increased from 18.7 to 29.5 percent, an increase of 10.8 percent. From 1930 to 1950, the decline in the proportion of tenants and sharecroppers amounted to 9.2 percent of the adult male farm work force, leaving the proportion slightly above the 1880 level. The proportion of farm laborers in the adult male agricultural work force continued to increase irregularly until 1940, when it reached a high of 31.3 percent. After 1940, the relative importance of farm laborers in the farm work force declined moderately to the 1950 level of 25.0 percent of adult male agricultural workers.

Estimates of tenure status of the entire adult male farm work force after 1950 cannot be derived from the 1954 Census of Agriculture, as estimates of this kind require information from censuses of both population and agriculture. According to the 1954 Census of Agriculture, the upward trend in farm-ownership status is continuing (table 2). Considering commercial, part-time, and residential farms together, between 1950 and 1954, the number of farms declined by about 600,000, continuing the long-run downward trend in number of farm units. The proportion of tenant farms dropped to a little less than 1 in 5, that of sharecropper farms to about 1 in 18, and the number of farms operated by tenants and sharecroppers declined by 274,000. Part-owner farms, the only tenure class that showed an increase in 1954, had 27,000 more units in 1954 than in 1950. Sharecropper farms declined by 71,000, or 21 percent below the number in 1950. Noncommercial farms decreased by 217,000, or about 13 percent. Part-time farms declined by 65,000 and residential farms by more than 150,000.

TABLE 2.—COMMERCIAL AND OTHER FARMS: *Number and percentage distribution, by economic class of farm and tenure of operator, United States, 1950 and 1954*

Economic class of farm and tenure of operator	1950			1954		
	Number of farms	Percentage distribution of—		Number of farms	Percentage distribution of—	
		All farms	Specified group		All farms	Specified group
Commercial farms:	*Thous.*	*Percent*	*Percent*	*Thous.*	*Percent*	*Percent*
Full owners	1,813		48.9	1,594		47.9
Part owners	729		19.7	756		22.7
Managers	20		.5	18		.5
Tenants	866		23.4	722		21.7
Sharecroppers	278		7.5	238		7.2
Total	3,706	68.9	100.0	3,328	69.6	100.0
Part-time farms:						
Full owners	462		72.2	420		73.0
Part owners	61		9.2	67		11.7
Tenants	86		13.5	68		11.8
Sharecroppers	30		4.8	20		3.5
Total	639	11.9	100.0	575	12.0	100.0
Residential farms:						
Full owners	816		79.3	731		83.3
Part owners	51		5.0	45		5.1
Tenants	132		12.8	93		10.6
Sharecroppers	30		2.9	9		1.0
Total	1,029	19.1	100.0	878	18.4	100.0
Abnormal farms	4	.1		3	(1)	
All farms	5,379	100.0		4,783	100.0	

[1] Less than 0.05 percent.

U.S. Census of Agriculture (*53, 1950, v. 2, p. 950; 1954, v. 2, pp. 968–969; 988–989*).

Tenure Status by Type of Farm

A promising approach to analysis of the factors that underlie farm-tenure status is a classification of tenure by type of farm. But trends in tenure status by type of farm are difficult to trace from census data, because of changes in classification from one agricultural census to another.

In general, tenants and sharecroppers are more numerous on farms that depend heavily on production of field crops (fig. 2 and table 3). Conversely, tenancy is lowest on dairy, poultry, and other livestock

farms. According to the census of 1950, owners operated 92 percent of all commercial poultry farms. This was the highest percentage of owners for any type-of-farm group (*53, 1950*, v. *5*, *pt. 5*, *p. 41*).

In 1950, however, tenant and sharecropper farms made up about 62 percent of all commercial farms producing cotton, about 38 percent of those producing cash grains, and 47 percent of those producing other field crops. The lowest percentage of tenancy and sharecropping among all types of commercial farms was reported on fruit and nut farms. But in 1950, this group made up only 2.2 percent of all commercial farms. A more detailed discussion of tenure by type of farm appears in the section on regional trends, in which area and State data are presented.

TABLE 3.—COMMERCIAL FARMS: *Percentage distribution, by type of farm and tenure of operator, United States, 1950*

Type of farm	Percentage of all commercial farms	Distribution by tenure of operator				
		Full owners	Part owners	Managers	Tenants and sharecroppers	Total [1]
Field-crop farms:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Cash-grain	11.6	31.6	30.4	0.3	37.7	100.0
Cotton	16.4	25.0	13.1	.2	61.7	100.0
Other field-crop	11.0	38.7	14.4	.2	46.7	100.0
All field-crop farms [1]	39.1	30.9	18.6	.2	50.3	100.0
Vegetable farms	1.3	54.1	23.4	1.0	21.5	100.0
Fruit and nut farms	2.2	81.0	9.9	3.0	6.1	100.0
Dairy farms	16.2	61.6	19.8	.6	15.0	100.0
Poultry farms	4.7	83.2	9.0	.5	7.3	100.0
Livestock farms, other than dairy and poultry	21.7	55.4	22.6	.8	21.1	100.0
General farms:						
Primarily crop	2.3	49.1	21.8	.5	28.5	100.0
Primarily livestock	3.6	59.1	20.9	.2	19.8	100.0
Crop and livestock	7.4	47.3	26.1	.2	26.4	100.0
All general farms [1]	13.3	50.8	23.9	.3	25.0	100.0
Miscellaneous farms	1.4	80.9	9.6	2.1	7.4	100.0
Total [1]	100.0					

[1] Because of rounding, figures do not add to totals shown.

U.S. Census of Agriculture 1950, *(53, v. 2, p. 950)*.

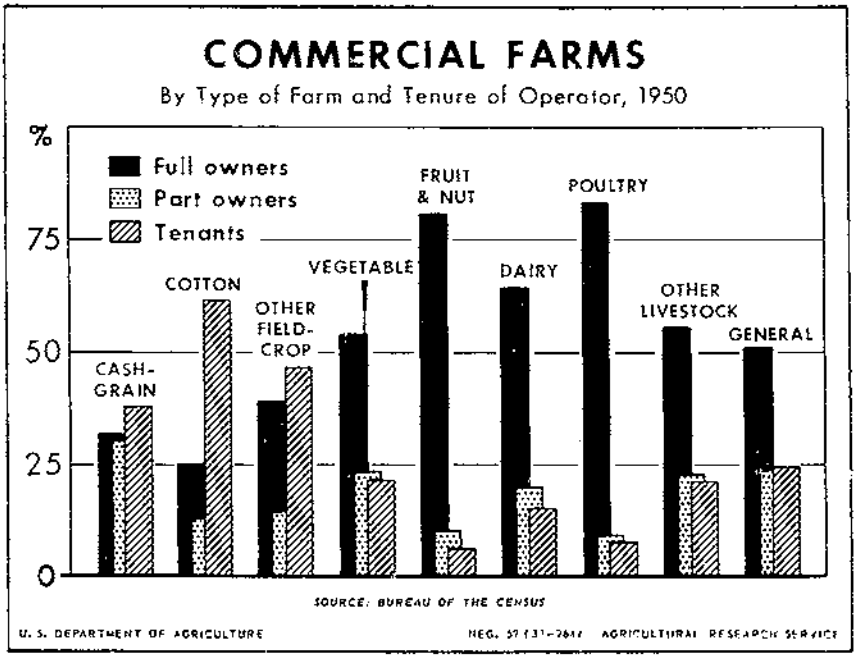

Figure 2

Commercial and Noncommercial Farms

About two-thirds of the farms counted in the 1950 census were commercial farms. (See table 2.) A commercial farm is defined broadly as a farm operated as a business for the purpose of providing the main source of livelihood for the operator and his family.[5] All other farms are mainly part-time and residential units.[6] Although the number of noncommercial farms was about 1½ million in 1950, these farms produced only 2.5 percent of the value of all farm products sold. More than seven-tenths of all part-time farms and nearly eight-tenths of all residential farms were owner-operated. Thus, data on farm tenure that include both commercial and noncommercial farms show higher proportions of owners than data based on commercial farms only.

Part Owners

A significant development in farm-tenure status has been the increasing incidence of part-owner farms. The growth of agricultural technology and more efficient farm-management practices have given

[5] According to the 1950 Census of Agriculture, in general, commercial farms are those with value of sales of farm products amounting to $1,200 or more. Farms with value of sales from $250 to $1,199 were also classified as commercial if the farm operator worked off the farm less than 100 days and if the income which the operator and other members of his family received from nonfarm sources was less than the total value of products sold.

[6] "All other farms" include also abnormal farms, such as public and private institutional farms, community enterprises, experiment station farms, grazing associations, and so on.

many farmers a choice between outright ownership of land and buildings on a small unit, or greater investment in machinery and equipment on a larger, rented unit. The acreage of land farmed by part owners, that is, farmers who own a farm and rent additional land, has increased steadily since the Bureau of the Census began to collect information on part owners in 1900. This increase represents largely an increase in size of units operated by part owners, as the number of part owners increased only moderately during the 40 years after 1900, or from about 450,000 to 615,000. But in the decade after 1940, the number of units operated by part owners rose by more than 200,000. In 1950, these farms made up 15 percent of all farms. The trend in proportion of part owners in the adult male agricultural work force is shown in table 1. This proportion increased from 6.3 percent in 1920 to 12.2 percent in 1950.

The spectacular increase in part-ownership status since the 1940 census provides part of the explanation for the decline in total number of farms that began about 1935. For the country as a whole, the average part-owner farm in 1950 (512 acres) was 4 times the size of the average full-owner farm and more than 3 times as large as the average tenant farm.[7] A recent study of size of farms in the United States by the U.S. Department of Agriculture showed that in 1945 the percentage of part-owner farms was lowest among nominal and part-time units and highest among large-scale farms: it ranged from less than 10 percent of the former to more than 30 percent of the latter (*3, p. 19*). In 1954, the modal economic class for full-owner farms was class V with income from farm products sold ranging from $1,200 to $2,499; the modal class of part-owner farms was class III, which includes farms with value of farm products sold ranging from $5,000 to $9,999.

The changes in farm management and technology since 1900, so far as they are related to farm size, may be seen in the rise in importance of part-owner units (fig. 3). In the 50 years after 1900, the average size of full-owner farms remained the same (135 acres) while the average size of part-owner farms increased from 276 to 512 acres. During the same period, the average size of tenant farms increased from 96 to 146 acres (*53, 1950, v. 3*).

REGIONAL TRENDS

From 1880 to 1930, the net shift in some areas of the country was from farm ownership mainly to tenancy or to tenancy and sharecropping. In other areas, it was mainly to a farm-laborer status. The general trend for the country as a whole reveals only one significant conclusion: As it operated up to the 1930's, the traditionally conceived agricultural ladder did not result in a rising or even a stable proportion of owners among adult male agricultural workers. The trend was toward increasing tenancy, sharecropping, and farm-laborer status (table 4).

[7] Managers were included in all data reporting full owners. Because of the relatively small number of managers, the proportion of full owners was not unduly affected.

AVERAGE SIZE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: 1900–1954

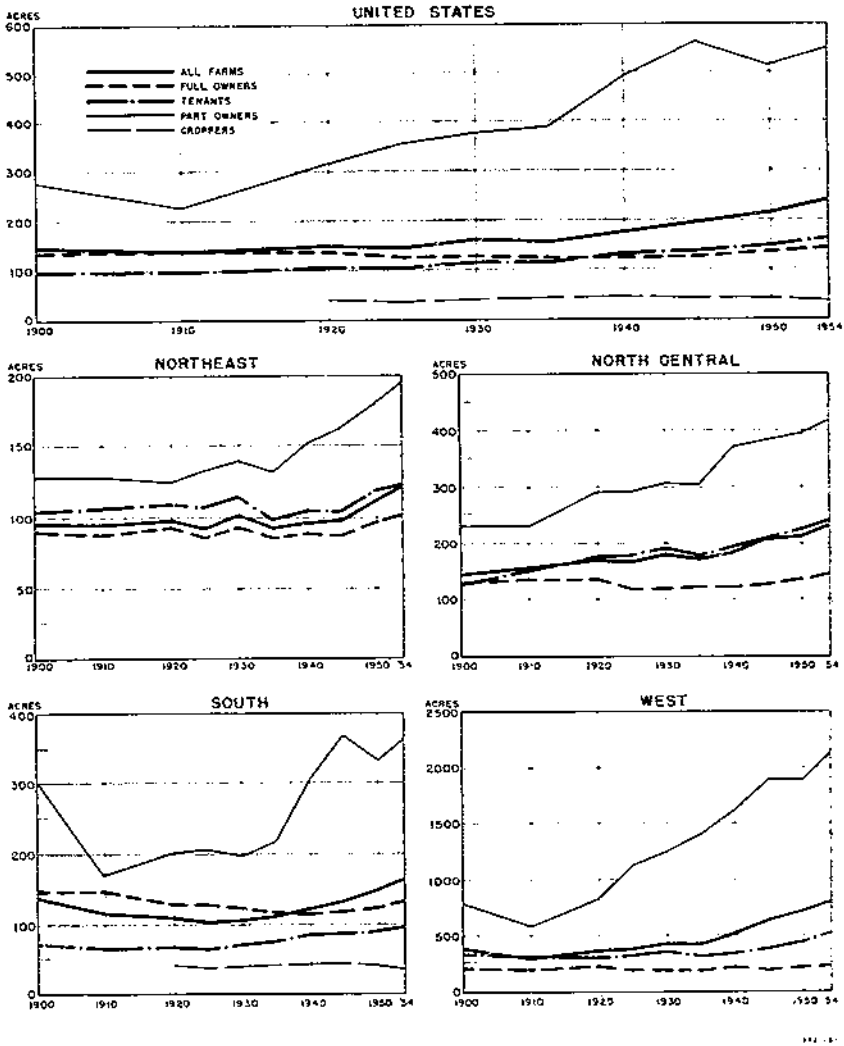

Figure 3

TABLE 4.—TENURE COMPOSITION: *Male agricultural workers aged 20 and over, United States and regions, 1880–1950* [1]

Region and tenure of operator	1880	1900	1920	1930	1940	1950
UNITED STATES	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Full owners and managers	54.7	47.4	38.8	33.0	34.2	42.5
Part owners			6.3	7.3	7.1	12.2
Tenants	18.7	25.6	22.0	21.1	21.1	15.6
Sharecroppers			6.3	8.4	6.3	4.7
Laborers	26.6	27.0	26.6	30.2	31.3	25.0
REGIONS						
Northeast:						
Full owners and managers	61.3	52.4	49.8	48.4	47.8	52.7
Part owners			3.2	3.4	4.0	8.4
Tenants	11.6	13.9	11.6	7.4	7.6	4.4
Laborers	27.1	33.7	35.4	40.8	40.6	34.5
North Central:						
Full owners and managers	62.6	53.9	41.1	35.6	36.4	44.7
Part owners			9.2	11.1	10.3	16.5
Tenants	16.2	21.0	23.5	24.2	26.4	19.9
Laborers	21.2	25.1	26.2	29.1	26.9	18.9
South:						
Full owners and managers	43.2	39.1	33.8	27.8	30.7	39.8
Part owners			4.6	5.2	5.1	9.5
Tenants	24.5	34.7	25.1	23.4	21.4	16.0
Sharecroppers			13.3	17.6	12.9	10.1
Laborers	32.3	26.2	23.2	26.0	29.9	24.6
West:						
Full owners and managers	66.6	57.3	43.4	35.4	33.7	40.1
Part owners			8.4	8.5	8.3	11.6
Tenants	10.8	11.0	11.5	11.6	11.7	7.7
Laborers	22.6	31.7	36.7	44.5	46.3	40.6

[1] See Methodology, p. 80.

In light of the sharp reversal in tenure status indicated by the data from the censuses of 1940 and 1950, can we conclude that opportunities for achieving farm ownership are greater than formerly and that the agricultural ladder is functioning? A look at some of the shifts in tenure status within States and regions since 1880 and at other aspects of farm tenure may provide some answers to this question.

In 1880 in five of the major geographic divisions, the proportion of owners among adult male farmworkers was 60 percent or more. Three divisions had fewer than 50 percent (table 5). The highest proportions of owners were in the Mountain and New England States; the lowest were in the South Atlantic and East South Central States. By 1950, the pattern of farm tenure had changed. In only two divisions, the East North Central and Middle Atlantic, did owners make up more than 60 percent of the adult male farm work force. In the South Atlantic, Pacific, and West South Central divisions, owners made up less than 50 percent of the farm work force. The net overall effect of these trends during the 70 years was to narrow regional differences in tenure status. In 1880, there was a difference of about 34 percent between the divisions with the highest and lowest proportions of owners in the adult male farm work force; by 1950, substantial declines in the four highest divisions, coupled

TABLE 5.—TENURE COMPOSITION: *Male agricultural workers aged 20 and over, major geographic divisions, 1880–1950* [1]

Geographic division and tenure of operator	1880	1900	1920	1930	1940	1950
	Per-cent	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*
New England:						
Full owners and managers	66. 6	58. 8	54. 4	47. 8	48. 5	51. 6
Part owners			2. 5	2. 9	2. 9	7. 1
Tenants	6. 3	6. 1	4. 7	3. 4	4. 2	2. 3
Laborers	27. 1	33. 1	38. 4	45. 9	44. 4	39. 0
Middle Atlantic:						
Full owners and managers	59. 1	50. 0	48. 2	48. 6	47. 5	53. 1
Part owners			3. 5	3. 6	4. 4	8. 9
Tenants	13. 9	16. 9	14. 0	8. 9	8. 7	5. 0
Laborers	27. 0	33. 1	34. 3	38. 9	39. 4	33. 0
East North Central:						
Full owners and managers	60. 9	54. 0	45. 0	41. 6	43. 4	50. 4
Part owners			7. 1	8. 9	8. 3	13. 3
Tenants	15. 8	19. 3	20. 9	19. 0	20. 1	15. 9
Laborers	23. 3	26. 7	27. 0	30. 5	28. 2	20. 4
West North Central:						
Full owners and managers	65. 1	53. 9	37. 4	30. 2	30. 5	40. 1
Part owners			11. 4	13. 2	12. 1	19. 1
Tenants	16. 8	22. 7	25. 9	28. 7	31. 6	23. 1
Laborers	18. 1	23. 4	25. 3	27. 9	25. 8	17. 7
South Atlantic:						
Full owners and managers	41. 0	39. 5	35. 3	31. 0	33. 0	39. 7
Part owners			3. 8	4. 8	4. 2	7. 8
Tenants	23. 0	31. 5	22. 3	17. 4	16. 6	13. 0
Sharecroppers			13. 1	16. 2	12. 3	11. 4
Laborers	36. 0	29. 0	25. 5	30. 6	33. 9	28. 1
East South Central:						
Full owners and managers	44. 0	39. 5	36. 3	30. 2	33. 5	43. 0
Part owners			4. 5	5. 1	4. 5	8. 9
Tenants	25. 8	36. 5	24. 7	23. 3	21. 1	16. 8
Sharecroppers			15. 4	20. 5	17. 5	12. 8
Laborers	30. 2	24. 0	19. 1	20. 9	23. 4	18. 5
West South Central:						
Full owners and managers	46. 2	37. 9	30. 0	22. 6	26. 0	36. 4
Part owners			5. 5	5. 7	6. 4	12. 3
Tenants	25. 3	37. 0	28. 5	29. 3	26. 3	18. 5
Sharecroppers			11. 6	16. 6	9. 3	5. 8
Laborers	28. 5	25. 1	24. 4	25. 8	32. 0	27. 0
Mountain:						
Full owners and managers	74. 9	66. 1	46. 7	34. 3	34. 5	39. 3
Part owners			10. 3	12. 4	12. 3	17. 5
Tenants	6. 8	9. 0	10. 7	14. 9	15. 5	10. 5
Laborers	18. 3	24. 9	32. 3	38. 4	37. 7	32. 7
Pacific:						
Full owners and managers	62. 5	50. 9	40. 5	36. 2	33. 1	40. 7
Part owners			6. 6	5. 6	5. 2	7. 2
Tenants	12. 7	12. 5	12. 3	8. 9	8. 7	5. 6
Laborers	24. 8	36. 6	40. 6	49. 3	53. 0	46. 5

[1] See Methodology, p. 80.

with moderate gains among the lowest, had narrowed the difference to around 16 percent. Part ownership has increased since information was first obtained for this class of farm. During the 1930's, however, the number of part-owner farms declined slightly in most areas. The highest proportions of part owners among adult male farmworkers are found in the Great Plains and the Corn Belt. The greatest gain in proportion of part owners was made in the 1940's.

Detailed information on tenure status by States for all census years from 1880 to 1950 is contained in appendix tables 17 through 22. The regional shifts in tenure status that have occurred during the three-quarters of a century are discussed in greater detail in the pages that follow.

The Northeast

Until 1930, the shift in the New England and Middle Atlantic States was chiefly toward farm-laborer status. The gradual commercialization of agriculture during this period increased the demand for hired farmworkers and tended to increase the ratio of farm laborers to operators—both owners and tenants. The proportion that tenants were of all male agricultural workers rose slighrly between 1880 and 1900 but, in general, the trend in tenancy was downward from that time on. The shift from subsistence to a predominantly commercial agriculture occurred relatively early in most areas of the Northeast. Concentrations of population and improvement in transportation provided markets for truck crops, most of which required much hired labor.

Whatever shifts occurred among the three tenure classes during the 1930's were erased by 1940, as the censuses of 1930 and 1940 reveal almost no differences in proportions of owners, tenants, and farm laborers in the Northeast. After 1940, rising farm prosperity encouraged farm ownership, and increased productivity tended to lower the demand for farm laborers. The renting of additional land as a means of increasing farm operations has not been as common a practice among farmers in the Northeast as in other areas. In 1920, this region ranked below the rest of the country in proportion of part-owner operators. Although part ownership more than doubled in the New England and Middle Atlantic States during the 1940's, these States were still below the national average in 1950.

The North Central Region

The decline in ownership status in the Midwest from 1880 to 1930 was accompanied by gains in tenancy and farm-laborer status of almost equal magnitude. Increases in proportions of tenants were particularly large in the West North Central area in the 20 years preceding 1900. This period was characterized by wide swings in farm prices and land values. Unlike the Northeast, where the proportion of tenants among farmworkers reached a peak in 1900, tenancy continued to increase in the North Central States until 1940. Ownership status in these States showed a decline in each census from 1880 to 1930. Between 1930 and 1940, a small decline in proportion of farm laborers was offset by an identical rise in the proportion of tenants, but there was no change in proportion of owners. The proportions of both farm laborers and tenants declined sharply between 1940 and 1950. This decline was accompanied by a rise in proportion of owners that almost erased the decline in ownership status of the preceding 60 years. Part-owner farms are more prevalent in this region than in any other. In 1950, they numbered more than 360,000, and part-owner operators made up 16.5 percent of the adult male agricultural work force.

The South

In 1950, more than 890,000, or more than half of all tenants and sharecroppers in the country (fig. 4) were in the South. Thirty-eight percent of these were sharecroppers (fig. 5) who produced chiefly cotton or tobacco. Statistics were first collected on sharecroppers in the 1920 census. Sharecroppers (or croppers) are defined by the Bureau of the Census as tenants who are paid a share of the crops but no share of the livestock or livestock products, and for whom all work power is furnished. The institution of sharecropping developed after the close of the Civil War. The former slaveowners needed to obtain labor with which to operate their land; and the freedmen needed land and tools with which to work. Paying workers a share of the crop divided the entrepreneurial risk between landlord and cropper and motivated workers to stay on the farm until the crops were harvested. Management decisions, however, were made by the plantation owners. The cropper system was extended gradually to white farmers, and by 1930 more than 16 percent of all white farm operators in the South were sharecroppers.

Sharecroppers were not classified separately in the censuses before 1920, but were listed as tenants. Estimates were developed separately for sharecroppers in the South for 1920 and later census years (tables 6 and 7).

TABLE 6.—*Sharecroppers as percentage of male agricultural workers aged 20 and over, Southern States and geographic divisions, 1920–50* [1]

State and geographic division	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*
Delaware	1.3	1.4	1.5	0.2
Maryland	1.7	2.0	2.0	1.9
Virginia	5.2	6.6	6.0	4.6
West Virginia	1.4	1.5	.8	.4
North Carolina	11.8	18.3	15.9	16.3
South Carolina	17.8	22.4	16.0	16.2
Georgia	24.2	28.7	18.7	16.2
Florida	4.7	4.2	2.4	1.4
South Atlantic	13.1	16.2	12.3	11.4
Kentucky	8.6	9.1	6.8	5.6
Tennessee	11.8	15.4	12.3	9.7
Alabama	15.0	19.5	13.1	9.2
Mississippi	26.9	36.4	35.0	25.3
East South Central	15.4	20.5	17.5	12.8
Arkansas	16.5	24.4	15.8	12.4
Louisiana	15.6	21.9	17.6	10.2
Oklahoma	3.6	7.6	2.0	1.1
Texas	11.5	15.0	6.0	2.8
West South Central	11.6	16.6	9.3	5.8
South	13.3	17.6	12.9	10.1

[1] See Methodology, p. 80.

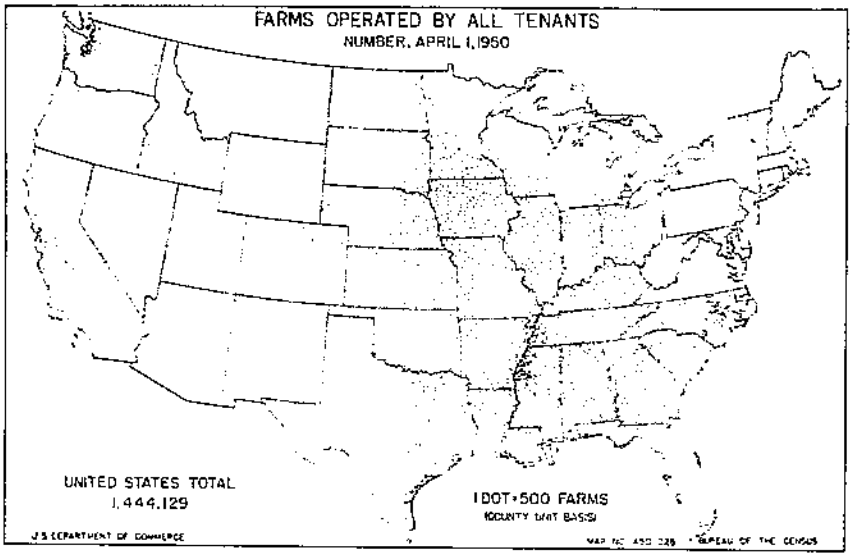

Figure 4

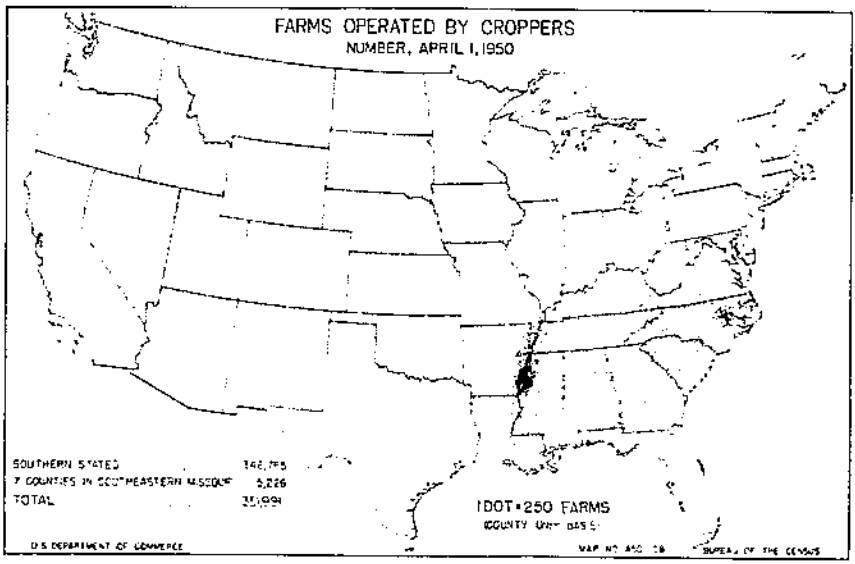

Figure 5

TABLE 7.—*Sharecroppers as percentage of white, nonwhite, and all farm operators, southern geographic divisions, 1920–54*

Geographic division and race	1920	1925	1930	1935	1940	1945	1950	1954
THE SOUTH	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
White operators	10.0	12.1	16.4	13.3	10.4	8.0	7.1	5.8
Nonwhite operators	36.2	41.4	44.6	45.2	44.0	40.6	35.4	34.6
All operators	17.5	19.9	24.1	20.9	18.0	15.5	13.1	11.6
GEOGRAPHIC DIVISIONS								
South Atlantic:								
White operators	9.8	11.6	15.9	13.1	11.6	9.4	8.5	6.6
Nonwhite operators	32.9	36.7	41.6	38.1	37.1	39.1	35.3	34.0
All operators	17.5	19.0	23.1	19.3	17.4	17.0	14.8	12.8
East South Central:								
White operators	10.9	12.4	17.6	15.7	12.6	9.5	8.5	7.4
Nonwhite operators	39.3	45.6	46.8	52.2	51.4	46.1	40.1	38.7
All operators	19.2	21.7	26.5	25.4	22.7	18.8	15.8	14.2
West South Central:								
White operators	9.1	12.3	15.7	11.4	7.1	4.8	4.0	3.1
Nonwhite operators	37.4	42.9	45.2	44.5	41.8	34.8	27.9	28.4
All operators	15.7	19.1	22.7	18.1	13.7	10.2	7.9	6.8

U.S. Census of Agriculture, 1950 and 1954 (*53*).

The number of tenant and cropper farms in the South increased sharply between 1890 and 1900. Some of the increase in the reported number of such farms may have resulted from recognition of more sharecropper units as farms in 1900 than in earlier census years. It is doubtful whether the censuses immediately following the Civil War fully counted sharecropper units as farms.

The possibility of classifying sharecroppers either as "farm operators" or "hired farm laborers" probably gave rise to some errors in enumeration. Because sharecroppers are supervised closely and rarely enter into management decisions, their tenure status is usually closer to that of farm laborers than of farm operators. Many landlords shift their method of operation from wage labor to sharecropping, depending upon which is more profitable in a given year. Obviously, it is difficult to arrive at estimates of the number of farm operators if, for example, a plantation can be classified as 20 or more farms when operated with sharecroppers, or as only one farm when hired laborers are employed.

The decline in proportion of sharecroppers was more rapid than the decline in proportions of other tenants in the 1930 decade; it was matched by an increase in laborer status in all divisions of the South. With the supply of labor plentiful throughout the South during the depression of the 1930's, landlords could operate their holdings more profitably with wage laborers than with sharecroppers, as wage rates for hired laborers were less rigid than the share fraction received by croppers. Moreover, Federal production-control programs, which reduced cotton acreage and prorated part of the benefit payments to tenants and sharecroppers but none to hired workers, similarly encouraged the trend from tenant-operated and sharecropper-operated farms to wage-labor-operated farms.

By 1950, the proportion of sharecroppers among southern adult male agricultural workers had declined to about 10 percent; the total number of sharecroppers declined about 36 percent between 1940 and 1950. At the same time, increased mechanization and improved economic conditions brought about a corresponding drop in farm-laborer status, along with a rise in ownership status, throughout the South. The greatest decline in proportion of sharecroppers in the adult male farm work force during the last decade was registered in the cotton areas of the Southeast, particularly in the Mississippi Delta.

Some additional insight into tenure status in the South may be gained by comparing the tenure patterns of white and nonwhite farmworkers (tables 7 and 8). Data on owners and tenants are available for 1945 and 1950 and for farm laborers for 1950 only. In each of the three regions of the South, there were marked differences in tenure patterns between white and nonwhite agricultural workers. More than half of all white male farmworkers but less than a third of the nonwhite farmworkers were owners in 1950.

Similar regional differences in proportion of whites and nonwhites were evident among farm laborers, but the greatest variation existed in the sharecropper category where the percentage of nonwhite sharecroppers among farmworkers ranged from about 3 to 6 times the percentage of sharecroppers among white male farmworkers. The smallest proportions of owners among nonwhite agricultural workers were in Georgia and Florida. Farm laborers accounted for more

TABLE 8.—TENURE AND RACIAL COMPOSITION: *Male agricultural workers aged 20 and over in the South, by States and major geographic divisions, 1950* [1]

State and geographic division	Full owners and managers		Part owners		Tenants		Sharecroppers		Laborers		Total work force	
	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Delaware	43.5	(2)	7.9	(2)	10.4	(2)	0.2	(2)	38.0	(2)	100.0	(2)
Maryland	50.6	16.2	6.3	3.8	9.7	7.7	1.1	4.9	32.3	67.4	100.0	100.0
Virginia	57.3	31.2	7.3	9.0	6.4	9.1	2.8	9.4	26.2	41.3	100.0	100.0
West Virginia	57.8	22.5	4.7	3.2	6.6	5.9	.5	(3)	30.4	68.4	100.0	100.0
North Carolina	49.2	15.0	10.5	8.8	13.2	17.6	10.0	29.1	17.1	29.5	100.0	100.0
South Carolina	47.9	16.1	10.0	8.3	14.5	22.3	8.6	22.7	19.0	30.6	100.0	100.0
Georgia	49.2	12.9	8.0	3.6	15.6	20.9	10.3	27.3	16.9	35.3	100.0	100.0
Florida	51.1	10.9	6.5	3.3	4.6	3.4	1.5	1.2	36.3	81.2	100.0	100.0
South Atlantic	51.3	16.4	8.3	6.8	11.2	16.5	6.7	21.1	22.5	39.2	100.0	100.0
Kentucky	55.0	20.3	9.6	6.9	11.8	4.9	5.2	14.2	18.4	53.7	100.0	100.0
Tennessee	52.8	14.9	10.9	6.6	12.0	23.6	6.8	27.1	17.5	27.8	100.0	100.0
Alabama	47.3	17.2	10.9	7.9	19.8	33.2	6.8	14.3	15.2	27.4	100.0	100.0
Mississippi	55.5	15.5	8.4	3.9	14.9	21.8	9.0	39.5	12.2	19.3	100.0	100.0
East South Central	52.8	16.1	10.1	5.5	14.1	24.5	6.6	29.7	16.4	24.2	100.0	100.0
Arkansas	48.4	16.4	9.7	5.7	16.3	20.2	6.0	31.2	19.6	26.5	100.0	100.0
Louisiana	52.2	16.3	8.9	4.1	16.8	24.4	3.8	18.5	18.3	36.7	100.0	100.0
Oklahoma	37.7	31.3	20.1	13.2	24.2	20.4	1.1	1.2	16.9	33.9	100.0	100.0
Texas	35.6	24.3	13.7	10.4	17.1	14.4	2.1	7.7	31.5	43.2	100.0	100.0
West South Central	40.4	19.9	13.6	7.1	18.2	19.8	2.9	17.7	24.9	35.5	100.0	100.0
The South	48.1	17.0	10.7	6.5	14.5	19.9	5.4	23.1	21.3	33.5	100.0	100.0

[1] See Methodology, p. 80.

[2] Included with white.

[3] Less than 1/10 of 1 percent.

than four-fifths of all nonwhite farmworkers in Florida, where the demand for hand labor in the citrus and vegetable crops is heavy; almost half of all nonwhite farmworkers in Georgia were tenants in 1950 and more than a third were farm laborers.

The largest proportions of sharecroppers among nonwhite farmworkers in 1950 were found in Mississippi and Arkansas, although between 1945 and 1950, these two States showed the most rapid decline in numbers of sharecroppers. In the same period, substantial increases in numbers of sharecroppers were reported in North Carolina, the Coastal Plains of South Carolina, and the cotton counties of southeastern Missouri. The increase in number of croppers in Missouri was accompanied by an expansion of about 200,000 acres in the acreage of cotton planted in the decade before 1950.

The decline since 1940 in percentage of farms operated by sharecroppers represents a striking change in farm tenure in the United States. The demand for industrial labor accompanying the World War II boom, the inroads of farm mechanization on the demands for hand labor first felt in the South during the last decade, and increasing farm prosperity, all contributed to the reduction in number of sharecroppers. However, the decline has not been uniform with respect to race of operators. The percentage of all nonwhite farm operators who were sharecroppers in 1954 was still higher than in 1920 in the South Atlantic States (although down from the 1935 peaks), whereas in 1954 the percentage of white farm operators who were croppers was down substantially from the 1920 level in all parts of the South. In the East South Central States, the peak in percentage of nonwhite farm operators who were sharecroppers occurred in 1935, five years later than the peak in percentage of white farm operators who were sharecroppers.

In a recent study by Anderson and Bowman (*3*), it was found that differences in rate of movement up the tenure ladder between States are not as great as might be assumed. Tenure progress among southern whites is almost comparable to that among northern whites. The significant differences in tenure progress appear when tenure status is shown by race.

The West

Between 1880 and 1940, the West experienced the greatest loss of entrepreneurship of any part of the country. Unlike the experience in the Midwest during this period, the drop in ownership status in the far West was accompanied by a small decline in proportion of tenants and a large increase in proportion of laborers among the adult male farm work force. At the beginning of the period, settlement of the land was still underway; labor was scarce relative to land; most farming operations were of the frontier-subsistence type; and a high proportion of the male farm work force had ownership status. In the Pacific States, settlement was more advanced and about 2 in 3 farmworkers were owners.

Since 1910, the region with the largest proportion of laborers in the adult farm work force has been the West. This pattern was influenced by the movement of population into the Pacific States; by growth in the importance of citrus fruits, vegetables, and other spe-

cialty crops in West Coast agriculture; and by the development of large-scale corporation-type farms. In the Mountain States between 1880 and 1940, increases in the proportions of tenants and farm laborers resulted in a 38-percent decline in ownership status. The tenure shift in the Mountain States was encouraged by the rapid extension of the range-livestock system and the expansion of such specialty crops as sugar beets and others that require large amounts of labor.

Only in the West did the downward trend in ownership status continue until 1940. The 6 States in which the proportion of owners declined by as much as 30 percent of the adult male farm work force between 1880 and 1940 were Nebraska, Colorado, Idaho, Arizona, Wyoming, and Montana. All except one are in the Mountain region. Between 1880 and 1940, the greatest decline of owners occurred in Nebraska, which is adjacent to the Mountain region. Unlike the decline in other States, however, for Nebraska most of the loss was balanced by an increase in tenants. In each of the Mountain States mentioned, the larger part of the shift was from ownership to farm-laborer status. By 1950, the trend had been reversed in all States except Arizona.

Despite the reversal of the downward trend in farm ownership in the West after 1940, only a little more than half, or 51.7 percent, of the adult male agricultural workers were owners in 1950; 7.7 percent were tenants; and 40.6 percent were farm laborers.

Tenure Status by Type-of-Farming Areas

A breakdown of national totals into homogeneous areas offers evidence of the variation in tenure status by type of farm. Table 9 shows the tenure status of farm operators in the various type-of-farm categories within each geographic division. Although most types of farms follow a distinctive pattern of tenure status, within the same type of farm, variations between geographic divisions are sometimes considerable. For example, the percentage of cash-grain farms that were owner operated in 1950 ranged from about 57 percent in the East South Central States to 90 percent in New England. Livestock farms ranged from 74 to 96 percent owner operated. Eighty percent of all cotton growers in the Pacific States were owners compared with less than 30 percent in the West North Central States.[8]

Although type of farm influences the tenure structure to a considerable degree, local socioeconomic factors are equally important in shaping the regional tenure pattern. Of course, some variations in tenure status of farm operators among geographic divisions can be attributed to differences in kinds of crops or livestock within the admittedly general type-of-farm classification and to the fact that these data do not include information on farm laborers. As the relative frequencies of hired workers within a given type of farming vary between regions, statistics on the tenure of farm operators which exclude data on farm laborers do not indicate the tenure composition of the overall farm work force.

[8] All cotton farms in the West North Central division were in southeastern Missouri.

TABLE 9.—*Percentage distribution of farms in each type-of-farm group, by tenure of operator, major geographic divisions, 1950*

Geographic division and tenure of operator	Type of farm											
	Cash-grain	Cotton	Other field crops	Vegetable	Fruit and nut	Dairy	Poultry	Livestock	General, primarily—			Miscellaneous
									Crop	Livestock	Crop and livestock	
New England:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Full owners [1]	80. 0	-------	78. 4	66. 6	88. 0	70. 0	91. 1	85. 2	89. 4	79. 7	82. 1	91. 6
Part owners	10. 0	-------	17. 0	28. 0	10. 9	25. 1	5. 6	10. 9	5. 4	18. 3	15. 8	6. 2
Tenants	10. 0	-------	4. 6	5. 5	1. 1	4. 9	3. 3	3. 9	5. 3	2. 0	2. 0	2. 3
Middle Atlantic:												
Full owners [1]	70. 4	-------	57. 5	63. 1	84. 9	68. 3	87. 4	80. 8	73. 1	74. 1	65. 8	88. 5
Part owners	16. 6	-------	27. 8	26. 2	11. 4	21. 8	8. 0	11. 7	18. 2	14. 9	18. 9	6. 9
Tenants	13. 0	-------	14. 7	10. 7	3. 7	9. 8	4. 7	7. 5	8. 7	11. 1	15. 2	4. 6
East North Central:												
Full owners [1]	32. 8	30. 5	61. 3	64. 8	84. 0	65. 2	84. 2	57. 4	62. 4	60. 5	44. 3	85. 5
Part owners	26. 1	26. 5	19. 6	20. 9	11. 3	17. 5	10. 0	18. 5	21. 2	20. 9	28. 9	9. 3
Tenants	41. 1	43. 0	19. 0	14. 3	4. 6	17. 2	5. 7	24. 2	16. 4	18. 6	26. 8	5. 1
West North Central:												
Full owners [1]	27. 8	19. 4	35. 7	62. 6	78. 0	61. 1	78. 0	48. 9	49. 7	51. 0	33. 1	83. 8
Part owners	31. 4	10. 0	27. 7	20. 8	10. 0	22. 1	10. 9	24. 3	22. 4	22. 7	29. 6	8. 3
Tenants	40. 8	70. 6	36. 6	16. 6	11. 9	16. 8	11. 1	26. 7	27. 9	26. 3	37. 3	7. 8
South Atlantic:												
Full owners [1]	47. 8	25. 0	32. 8	54. 6	87. 3	68. 9	80. 5	76. 6	47. 2	81. 3	65. 8	81. 1
Part owners	23. 5	10. 6	12. 4	22. 3	8. 2	17. 9	10. 1	13. 6	20. 5	12. 5	19. 1	10. 4
Tenants and sharecroppers	28. 8	64. 5	54. 8	23. 1	4. 4	13. 2	9. 4	9. 8	32. 4	6. 2	15. 1	8. 6

See footnote at end of table.

TABLE 9.—*Percentage distribution of farms in each type-of-farm group, by tenure of operator, major geographic divisions, 1950*—Continued

Geographic division and tenure of operator	Type of farm											
	Cash-grain	Cotton	Other field crops	Vegetable	Fruit and nut	Dairy	Poultry	Livestock	General, primarily—			Miscellaneous
									Crop	Livestock	Crop and livestock	
East South Central:	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Full owners [1]	40.9	24.4	49.0	47.1	77.9	65.7	79.6	70.0	49.4	69.9	62.6	81.8
Part owners	16.5	9.7	14.5	17.9	8.9	16.4	9.3	15.5	18.5	17.1	19.0	9.7
Tenants and sharecroppers	42.7	65.9	36.5	35.0	13.2	17.9	11.0	14.5	32.2	13.1	18.3	8.6
West South Central:												
Full owners [1]	30.6	25.7	28.5	45.3	78.9	57.4	77.3	58.5	36.1	61.2	47.4	79.7
Part owner	34.4	17.1	27.1	24.6	10.2	24.9	10.5	25.7	27.1	23.7	28.1	13.5
Tenants and sharecroppers	35.0	57.1	44.3	30.0	10.9	17.6	12.2	15.8	36.8	15.1	24.4	6.7
Mountain:												
Full owners [1]	36.5	40.4	44.5	48.5	84.1	66.7	83.2	51.8	49.1	65.1	51.7	82.2
Part owners	38.9	28.2	20.9	21.5	9.0	21.2	11.3	38.3	20.5	24.6	28.0	10.1
Tenants	24.6	31.4	34.6	30.1	6.9	12.1	5.4	9.8	30.3	10.2	20.4	7.8
Pacific:												
Full owners [1]	36.5	51.6	52.1	46.1	84.0	66.1	89.5	65.2	54.9	77.0	64.1	76.8
Part owners	38.3	28.2	28.2	25.5	9.9	17.9	6.2	25.5	28.2	16.2	24.5	11.4
Tenants	25.2	20.2	19.7	28.5	6.0	16.0	4.4	9.3	16.9	6.8	11.4	11.8

[1] Includes managers.

U.S. Census of Agriculture: 1950 (*53, v. 2, p. 1286*).

A further refinement of the analysis by type of farm was made by grouping States into roughly similar type-of-farming areas without regard to the usual regional and divisional classifications. Most States do not fall readily into a single type-of-farm classification. However, two groups of States appear to be reasonably homogeneous. Tenure data were combined for the 13 States in which, in general, dairying is the major farm enterprise and for the 7 States in which cotton is the chief crop. By using State data, it was possible to regroup the available census information and obtain tenure ratios of owners, tenants, and farm laborers by type of farm from 1880 to 1950.

A striking contrast in tenure trends by type of farm is shown between the dairy States in figure 6 and the cotton States in figure 7. In 1880, ownership status in the dairy States was higher than the national average. From 1880 to 1950, it remained above 50 percent of the adult male agricultural work force. But ownership status among the cotton States was below the national average in 1880 and also from 1880 to 1950. The reversal of the downward trend in ownership status was first noted for the cotton States in 1930, while the decline in the dairy States continued until 1940.

Differences in tenancy and sharecropper status between the two groups of States are even more striking. The proportion of tenants in the adult male agricultural work force in the dairy States was relatively low and varied little during the 80-year period. Tenancy and sharecropping in the cotton States was at a high level in 1880 and rose rapidly until 1930. In these States, the decline of tenancy and sharecropper status since 1930 has been swift. In general, trends

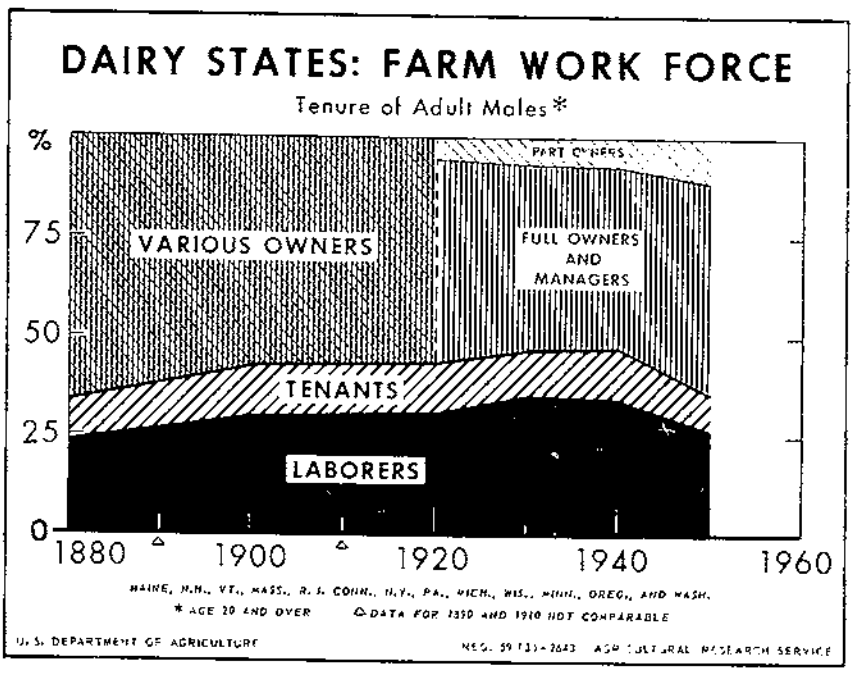

Figure 6

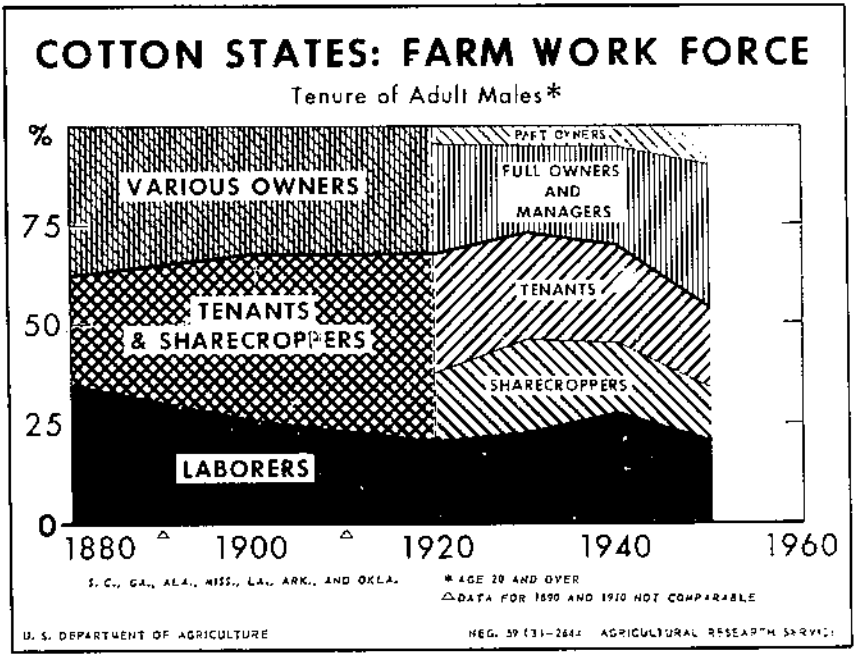

Figure 7

in proportions of laborers in the adult male farm work force in the cotton and dairy States diverged until 1940. Between 1940 and 1950, declines in proportions of farm laborers of about the same magnitude were noted in each group of States.

CHANGES IN AGE AND TENURE OF FARM OPERATORS

The changing age structure of farm operators in relation to tenure status has held the attention of researchers for some time. In 1916, Spillman and Goldenweiser noted that in recent censuses the percentages of tenants among farm operators grouped by age had been highest for those under 25, diminishing with successively older age groups. They concluded that ". . . by far the greater proportion of young men who start out as tenants succeed in becoming owners" (*41, p. 323*). Goldenweiser and Truesdell found the same pattern from their study of 1920 census data. Although they pointed out that tenancy percentages for all age groups of farm operators had tended to increase from census to census, they concluded that the great majority of farmers still spend the latter part of their lives as independent owners (*22, p. 114*). On the basis of census data to 1940, Dr. Black and his associates concluded that because the proportion of tenancy has increased in the younger ages (25 to 44 years), "our tenants on the whole are therefore getting younger rather than older . . ." (*10, p. 73*).

Cox, writing in 1944, criticized the use of census age data in analysis of tenure changes and contended that the figures show only that the older men left on the farm were predominantly owners.

"They do not take into account the possibility that many former tenants may have failed to establish themselves as owners, slipped down the ladder to the status of farm laborers, sought a brighter future in the cities, or been eliminated otherwise" (*15, p. 103*).

In 1948, Taylor, Ducoff, and Hagood showed that from 1890 until 1940, the median ages for all tenure classes rose more or less steadily (table 10). Despite the general aging of the population, however, the 1950 census showed that the median age of farm operators and farm laborers had declined during the preceding decade. Laborers particularly were substantially younger as a group than in 1940. But the recent decline in the median ages of tenants, sharecroppers, and farm laborers does not prove that greater numbers of persons in these groups are now advancing to ownership status than formerly. Further, the fact that over the years tenants have had a median age approximately 10 to 12 years below that of owner-operators does not document the ladder theory. Cross-section statistics of this kind fail to provide information as to the chief ways in which individuals achieve owner-operatorship.

TABLE 10.—*Median age of male agricultural workers aged 20 and over, by tenure of worker, United States, 1890–1950*

Year	Farm operators			Farm wage and salary workers
	Total [1]	Owners	Tenants and sharecroppers	
	Years	*Years*	*Years*	*Years*
1950	48.3	51.3	39.7	26.6
1945	49.0	51.9	42.1	...
1940	48.4	52.7	40.8	30.3
1930	46.1	51.1	38.9	29.5
1920	44.2	48.4	37.7	[2] 27.3
1910	43.5	47.7	36.4	...
1900	[3] 44.6	[1 3] 48.2	[3] 38.0	...
1890	[3] 44.2	[1 3] 47.7	[3] 37.9	...

[1] Includes managers.

[2] The 1920 census was taken in January, whereas the 1930 to 1950 censuses were taken in April. The median age of wage and salary workers shown for 1920 is probably somewhat higher than would have been the case had the census been taken in April. Seasonal accessions to farm wage workers include larger proportions of younger workers than is the case for those employed in midwinter.

[3] Consists of heads of households of owned and rented farm homes; not precisely comparable with other medians.

Medians for farm operators computed from data in the 1950 Census of Agriculture (*53, v. 2, p. 84*); medians for wage and salary workers computed from censuses of population data on occupations for specified years (*50*).

Age-cohort Analysis

A more revealing but still indirect approach involves tracing a group of farm operators from one census to the next. This is done inferentially by comparing a 10-year age group in one census with the age group 10 years older in the next census. It is assumed that each 10-year age group in one census is composed mainly of the survivors [9] of the next younger 10-year age group from the preceding census. A 10-year age group of farm operators is identified by the period during which its members were born. The tenure experience of each homogeneous age cohort of farm operators is traced from the time of entry into the farm work force to the end of the cohort's working life. Thus, indirectly, the changing tenure pattern is de-

[9] "Survivors" here include those who (1) do not die and (2) do not retire or move into either farm-laborer status or nonagricultural pursuits.

TABLE 11. *Numbers of owners and of tenants and sharecroppers in age 1880–1950,*

Period in which cohort was born	Ages attained by cohorts at successive census years					
	Under 25 years			25–34 years		
		Tenure			Tenure	
	Census year	Owners	Tenants and sharecroppers	Census year	Owners	Tenants and sharecroppers
		Thous.	*Thous.*		*Thous.*	*Thous.*
1856–65	*1880*	[2]	[2]	*1890*	539	543
1866–75	*1890*	71	147	*1900*	541	653
1876–85	*1900*	76	199	*1910*	621	777
1886–95	*1910*	98	317	*1920*	561	754
1896–1905	*1920*	87	291	*1930*	335	703
1906–15	*1930*	47	322	*1940*	333	609
1916–25	*1940*	49	193	*1950*	441	461
1926–35	*1950*	48	126			

[1] Excludes managers.
[2] Not available.

U.S. Census of Agriculture, 1880-1950 (*53*).

picted during the working life of successive "waves" or "generations" of farm operators. This method was used most extensively by Taylor, Ducoff, and Hagood in their 1948 study (*44, pp. 17–21*) in which they used data through the 1940 census. Data from the 1950 census were included in the study reported here. The approach was first used by Black and Allen in 1937 (*9*), although it was described briefly by Goldenweiser and Truesdell in 1924 (*22, p. 89*).

In table 11, for example, the group of farm operators under 25 years of age in 1890 is the age cohort born during the period 1866–75. The numbers in the cohorts may be traced through successive decades by moving across the line to the next older age group. Thus in the line labeled "cohort born during the period 1866–75" the entries for "under 25 years" were taken from the 1890 census, and the entries for "25 to 34 years" from the 1900 census. Table 12, which was derived from data in table 11, indicates the net tenure changes that occurred in each cohort during each decennial period.

cohorts of male farm operators, by ages attained at successive census years, United States [1]

Ages attained by cohorts at successive census years—Continued

35–44 years			45–54 years			55–64 years			65 years and over		
	Tenure			Tenure			Tenure			Tenure	
Census year	Owners	Tenants and sharecroppers	Census year	Owners	Tenants and sharecroppers	Census year	Owners	Tenants and sharecroppers	Census year	Owners	Tenants and sharecroppers
	Thous.	*Thous.*		*Thous.*	*Thous.*		*Thous.*	*Thous.*		*Thous.*	*Thous.*
1900	908	502	*1910*	1,036	384	*1920*	781	206	*1930*	563	111
1910	970	585	*1920*	1,021	447	*1930*	794	263	*1940*	693	133
1920	938	631	*1930*	943	505	*1940*	860	282	*1950*	661	131
1930	766	672	*1940*	951	469	*1950*	852	146			
1940	668	574	*1950*	910	243						
1950	818	363									

The pattern of ownership by age groups revealed by the 1950 census suggests a tenure situation more nearly in line with the ladder hypothesis than those suggested by data from earlier censuses. From 1940 to 1950, a substantial increase in number of owners and a decrease in number of tenants and sharecroppers were experienced by the two age cohorts that were in their most productive years. These were (1) the age cohort born during the period 1896–1905, and passing from "age 35 to 44 years" to "age 45 to 54 years," and (2) the age cohort born during the period 1906–15, and passing from "age 25 to 34 years" to "age 35 to 44 years" during the decade. According to table 12, these favorable tenure changes were greater than in comparable stages of the working life of any earlier age cohorts about which data are available. However, the overall picture, as presented by cohort analysis, is not conclusive. This type of analysis does not reveal the sources of various tenure shifts up the agricultural ladder. Increases in number of owners in a cohort may come from farm laborers, tenants, or nonfarm workers. Some individuals may make the shift from farm laborer to tenant to owner in less than a decade, in which case the movements may have been obscured.

TABLE 12.—*Changes in numbers of owners and of tenants and sharecroppers 1880–1950,*

Period in which cohort was born	Cohort progresses from "under 25" to "25–34" years			Cohort progresses from "25–34" to "35–44" years		
	Census years	Changes during decade in number of—		Census years	Changes during decade in number of—	
		Owners	Tenants and sharecroppers		Owners	Tenants and sharecroppers
		Thous.	*Thous.*		*Thous.*	*Thous.*
1856–65	*1880–90*	(2)	(2)	*1890–1900*	+369	−41
1866–75	*1890–1900*	+470	+506	*1900–10*	+429	−68
1876–85	*1900–10*	+545	+578	*1910–20*	+317	−146
1886–95	*1910–20*	+463	+437	*1920–30*	+205	−82
1896–1905	*1920–30*	+248	+412	*1930–40*	+333	−129
1906–15	*1930–40*	+286	+287	*1940–50*	+485	−246
1916–25	*1940–50*	+302	+208			

[1] Excludes managers.
[2] Not available.

The changes in percentage of owners in each cohort during the decades give additional insight into the shifting patterns of farm tenure. In table 13, only the group aged 65 and over show a constant percentage of owners during the 60-year period. Trends for the two youngest groups reveal the decline in ownership status from 1890 to 1930. Substantial losses also were felt among the 35 to 44 and 45 to 54 year age groups. The 55 to 64 year age group increased its percentage of owners between 1900 and 1920. All age groups showed an increase in ownership status in 1940 and except for the oldest group a substantial increase in 1950. In 1950, for the first time, the group of farm operators aged 55 to 64 had a higher percentage of owners than the group aged 65 and over. This reflected the influence of continued farm prosperity on the ability of farm owners to retire. Although apparently the prosperous 1940's came too late to influence markedly the tenure status of those who neared the end of their working lives during that decade, the proportion of owners in the youngest group has more than doubled since 1930.

croppers in age cohorts of male farm operators during 10-year periods, United States [1]

Cohort progresses from "35–44" to "45–54" years			Cohort progresses from "45–54" to "55–64" years			Cohort progresses from "55–64" to "65 years and over"		
Census years	Changes during decade in number of—		Census years	Changes during decade in number of—		Census years	Changes during decade in number of—	
	Owners	Tenants and sharecroppers		Owners	Tenants and sharecroppers		Owners	Tenants and sharecroppers
	Thous.	*Thous.*		*Thous.*	*Thous.*		*Thous.*	*Thous.*
1900–10	+128	−118	*1910–20*	−255	−178	*1920–30*	−218	−95
1910–20	+51	−138	*1920–30*	−227	−184	*1930–40*	−101	−130
1920–30	+5	−126	*1930–40*	−83	−223	*1940–50*	−199	−151
1930–40	+185	−203	*1940–50*	−99	−323			
1940–50	+242	−331						

TABLE 13.—*Percentage of owners in age cohorts of male farm operators, by ages attained at successive census years, 1880–1950, United States* [1]

Period in which cohort was born	Ages attained by cohorts at successive census years											
	Under 25 years		25–34 years		35–44 years		45–54 years		55–64 years		65 years and over	
	Census year	Owners as percentage of operators	Census year	Owners as percentage of operators	Census year	Owners as percentage of operators	Census year	Owners as percentage of operators	Census year	Owners as percentage of operators	Census year	Owners as percentage of operators
		Percent		*Percent*		*Percent*		*Percent*		*Percent*		*Percent*
1836–45	*1860*	[2]	*1870*	[2]	*1880*	[2]	*1890*	75. 5	*1900*	70. 7	*1910*	84. 9
1846–55	*1870*	[2]	*1880*	[2]	*1890*	64. 0	*1900*	64. 4	*1910*	78. 7	*1920*	83. 4
1856–65	*1880*	[2]	*1890*	49. 8	*1900*	64. 4	*1910*	73. 0	*1920*	79. 1	*1930*	83. 5
1866–75	*1890*	32. 6	*1900*	45. 3	*1910*	62. 4	*1920*	69. 6	*1930*	75. 1	*1940*	83. 9
1876–85	*1900*	27. 6	*1910*	44. 4	*1920*	59. 8	*1930*	65. 1	*1940*	75. 3	*1950*	83. 4
1886–95	*1910*	23. 6	*1920*	42. 7	*1930*	52. 9	*1940*	67. 0	*1950*	85. 4	.....	.....
1896–1905	*1920*	23. 0	*1930*	32. 3	*1940*	53. 8	*1950*	78. 9	.....	.....	.....	.....
1906–15	*1930*	12. 7	*1940*	35. 4	*1950*	69. 2	.....	.....	.....	.....	.....	.....
1916–25	*1940*	20. 5	*1950*	52. 7	.....	.....	.....	.....	.....	.....	.....	.....
1926–35	*1950*	28. 0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[1] Excludes managers.
[2] Not available.

In 1890, when land was relatively cheap and some public land of farm quality was available, about a third of all farm operators under 25 years of age were owners. No similar age group has had so large a proportion of owners since that time. But in 1930, the cohort born during the period 1906–15 had only about 1 farm owner in 8 operators. In 1950 (when its age spread was 35 to 44), it had reached a level of ownership higher at that stage than any previous cohort for which data are available. Whatever considerations influence the proportion of beginning farmers who are owners, one may conclude that such factors are largely outweighed by the changing social and economic environment during the working life of these farmers. In ages 65 years and over, when most farm operators slow down or retire, the percentages of the remaining farm operators who own their farms have been about the same for all cohorts during the years for which data are available. It has varied by no more than 2½ percentage points between any 2 census years during that time.

Several questions are suggested by the preceding description of changes in the tenure status of farmworkers during the last three-quarters of a century. First, what long-run forces operated in the farm-tenure situation so that during the years, owner-operators constituted only about half of the adult male agricultural work force? Second, what has been responsible for the improvement in the farm-tenure situation since the mid-1930's? Third, what farm-tenure developments may be expected in the future? Answers to these questions are explored in the pages that follow.

LONG-RUN FACTORS IN THE FARM-TENURE SITUATION

The farm-tenure situation in the United States compares favorably with that in many other countries. Our generally accepted ideal for farm people is that of owner-operated family farms. Why have so many of our farm people not been able to achieve this goal? To understand the farm-tenure situation in the light of this question, one must examine the interaction of various technologic and socio-economic factors within the farm scene over the long pull. In doing this, we consider here three phenomena that bear on the question as to why farm owner-operatorship has not been even more generally attained: (1) The availability to our farmers of land and capital; (2) the continuing supply of rural manpower in excess of labor requirements in agriculture, despite constant migration into other pursuits; and (3) fluctuations in business activity.

AVAILABILITY OF LAND AND CAPITAL

The Disappearance of the Frontier

Owners have never constituted much more than half of the agricultural labor force since tenure statistics were first collected, and they declined in relative importance for a number of decades after 1880. Could these phenomena be attributed to the closing of the frontier around 1890 and the subsequent scarcity of free or cheap farmland?

One might expect that in 1880 or 1890, the Western States would have had a relatively high percentage of owner-operators among their adult male agricultural workers, because these States still had unsettled areas or had only recently passed out of the frontier period. Also, as these original settlers died off or retired during the next few decades, the percentage of owner-operatorship in these States might have been expected to decrease. In a general way, State data reveal some evidence of such developments.

It would be incorrect, however, to conclude that the disappearance of the frontier influenced strongly the later tenure composition of the male agricultural work force either in the country as a whole or in particular areas. The idea of an earlier abundance of good and easily accessible agricultural land beyond the frontier should be neither oversimplified nor overemphasized. To understand the influence of the frontier, one must consider the sequence of events in settlement, the pattern of population movement, the economic costs and the physical difficulties of making forest or prairie land into farms, and the large numbers of European immigrants who were attracted to rural America by reports of cheap land.

The so-called "frontier of settlement" was an imaginary line only. For a time, substantial areas behind the frontier were still largely unsettled. The census defined the "frontier of settlement" as the population-density limit of 2 settlers per square mile. Furthermore, a frontier family could farm only a small acreage; the homestead preemption limit was commonly 160 acres (a quarter-section, or one-fourth square mile); and the households of most settlers probably contained at least 2 persons. Thus, if only 1 quarter-section in 4 were farmed in an area, the population density of that area would be more than 2 persons per square mile. As much as three-fourths of an area behind the frontier might be unclaimed or unoccupied. Hence for some time, land settlement and development activities were probably more active behind the frontier than beyond it. For example, from the time of the nominal closing of the frontier in 1890, until 1930, four times as much land was homesteaded as in the three preceding decades (*55, 1956, p. 184*).

The frontier was not an orderly line that moved steadily from the East to the West. Rather, it was a ragged fringe of settlement. Only in general direction was its expansion westward. In 1880, for example, small parts of such "old" States as Maine, New Hampshire, New York, Michigan, Wisconsin, and Minnesota were still "beyond" the frontier, along with large parts of all the States on or beyond the 100th meridian (*19, pp. 275, 289*).

Farmmaking on or near the frontier was not as easy or as inexpensive as might be supposed. Much of the potentially more desirable farmland was quickly taken up by neighboring farmers and by speculators who, anticipating a future rise in land value as the area of settlement became more dense, sold it to late comers for as much as they could get (*21*).

The cost of improving raw farmland—including out-of-pocket expenses for both farm development and family subsistence—was considerable, when related to comparable wage rates on farms or in towns. The pioneer had to obtain transportation to the West for

himself and his family and provide subsistence until the first crops were in. If forested, his land had to be cleared; if prairie, the sod had to be broken and rotted. If the pioneer did the work himself, the period of waiting for his first harvest was lengthened and during this period the family had to buy its subsistence. If he had the work done on contract, the cash cost was substantial. A shelter had to be built and fences raised, both of which were difficult and expensive in prairie country. As in older agricultural regions, pioneer farmers needed capital for implements, seed, draft animals, and other livestock.

Frontier farmmaking was thus not an easy process available to all (*16*, *38*). In the 1850's, for example, the minimum capital required to establish a farm was in the neighborhood of $1,000, and during this period a man would have done well to save $50 a year, working for prevailing wages either in town or on a farm (*16*).

Even before the so-called disappearance of the frontier, the scramble for new land was intensified by the steadily rising tide of immigrants from the Old World. Word of free or cheap land induced substantial numbers of European immigrants to settle in rural America. Both before and after 1890, their coming tended to increase the difficulty of access to farmland (*39*).

Land near the frontier was never "free" and easily accessible to all, and the closing of the frontier did not mark a drastic turning point in our land-tenure situation. During the early 20th century, the rapid decline in the proportion of owner-operators in the agricultural work force of some of the more recently settled Western States was doubtless caused partly by the closing of the frontier. But other nationwide and local developments that tended to reduce the relative frequency of owner-operators among the agricultural work force were probably more important.

Land Less Scarce Than in Other Countries

Even since the frontier was closed, available agricultural land has not been as scarce relative to the population as it has been in most other countries. Ignoring variations in productivity of land, the 3.1 acres of arable land per capita of total population in the United States at mid-twentieth century contrasts with 1.28 for the world as a whole, 0.64 for the continent of Asia, and 0.29 and 0.20 for China and Japan, respectively (*79*, *p. 476*).

These figures, however, do not take into consideration the level of a people's agricultural technology. When techniques of agricultural production and marketing are well advanced, one farm family can produce the food and fiber needed for a number of families, thereby releasing the other families for production of other consumer goods and services and reducing the pressure of population on the land.[10]

[10] The level of industrial technology is also relevant to the question of population pressure on agricultural land. A nation may specialize in nonagricultural commodities and trade some of these for its needed food and fiber. However, few countries with "backward" agricultural techniques possess advanced industrial techniques.

Besides possessing a relatively large acreage of arable land per capita, the United States is also fortunate in having advanced agricultural techniques that reduce the effective pressure of its population on the land. Thus in this country, there are 16.5 acres of arable land per capita of agricultural population, contrasted with such comparable figures as 2.2 for the world as a whole, 0.94 for the continent of Asia, and 0.7 for China (*79, p. 476*). When agricultural land is relatively abundant, land-tenure problems tend to be less pressing than when land is relatively scarce. Nonetheless, in the United States, land has always been sufficiently scarce to make competition for farmland keen.

High Capital Investment Per Farm

The amount of capital needed for ownership of land, buildings, livestock, and equipment and to meet operating expenses for an efficient family farm has always been large compared with the earning potential of a typical farm family.

In 1957, for example, investment per farm averaged about $27,000 for the country as a whole, considering commercial farms together with residential and part-time farms (fig. 8). For commercial family-operated farms, investment per farm was somewhat higher; it varied considerably among different types of farms and farming areas (fig. 9).

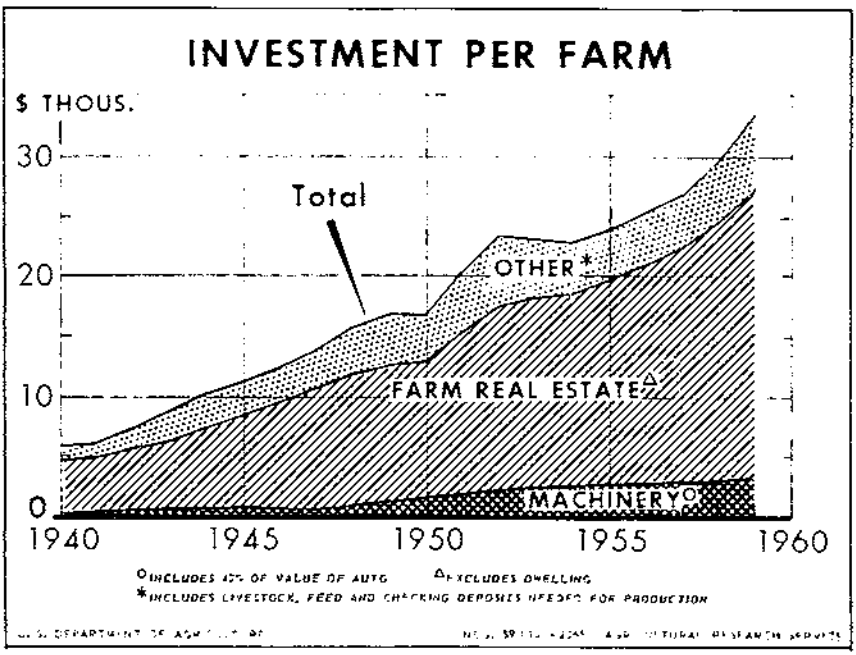

Figure 8

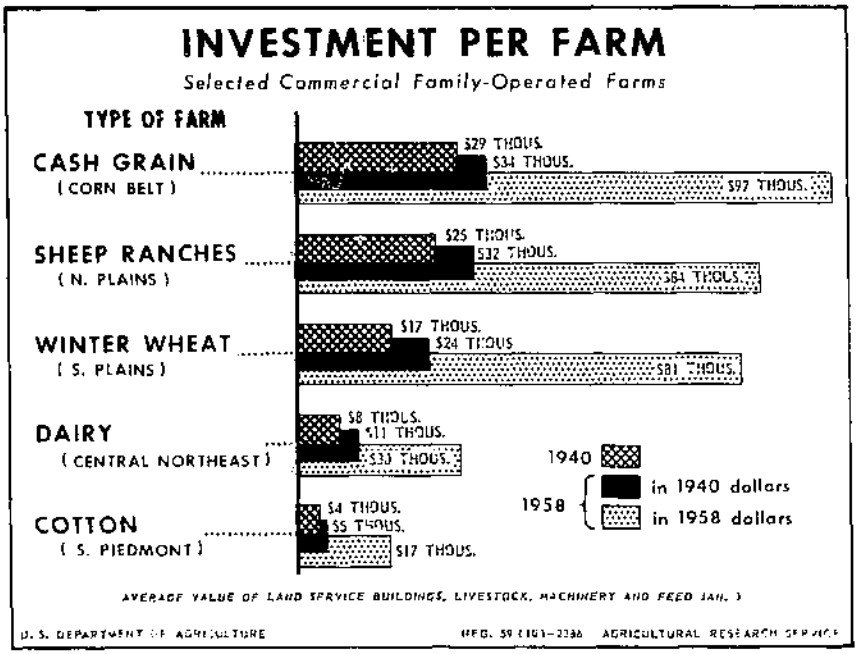

Figure 9

Effect of Increasing Capital Requirements on Farm Ownership

The view is widespread that during the years increases in capital requirements per farm have made it more difficult for farm families to accumulate the equity needed for ownership of an efficient farm unit. Increases in prices of farmland and in farm size caused the current dollar value of land and buildings per farm to quadruple between 1870 and 1950 (*45, pp. 32, 36*). Use of farm machinery and equipment has increased and the prices of such items have risen. Thus in 1950, the average value of implements, machinery, and work stock per farm was 7 times the 1870 figure, each expressed in dollars with the purchasing power current in the respective years. Considering all items of physical farm capital together, in 1950 the current value of physical capital per farm was more than 4½ times that of 1870 in current dollars (*45, pp. 32, 36*). Such secular increases in capital per farm appear to be less pronounced, however, when comparisons are made in terms of dollars of constant purchasing power.

To throw light on the question as to whether it has become increasingly difficult for a farm family to accumulate the capital for a farm unit of efficient size, capital requirements per farm should be related to family income from farming and other sources. Figure 10 shows the ratio of the value of all physical farm assets (real estate, machinery and equipment, and livestock) to farm operators' annual net farm income for each year, and also the ratio of farm real estate values to operators' net farm incomes for the period

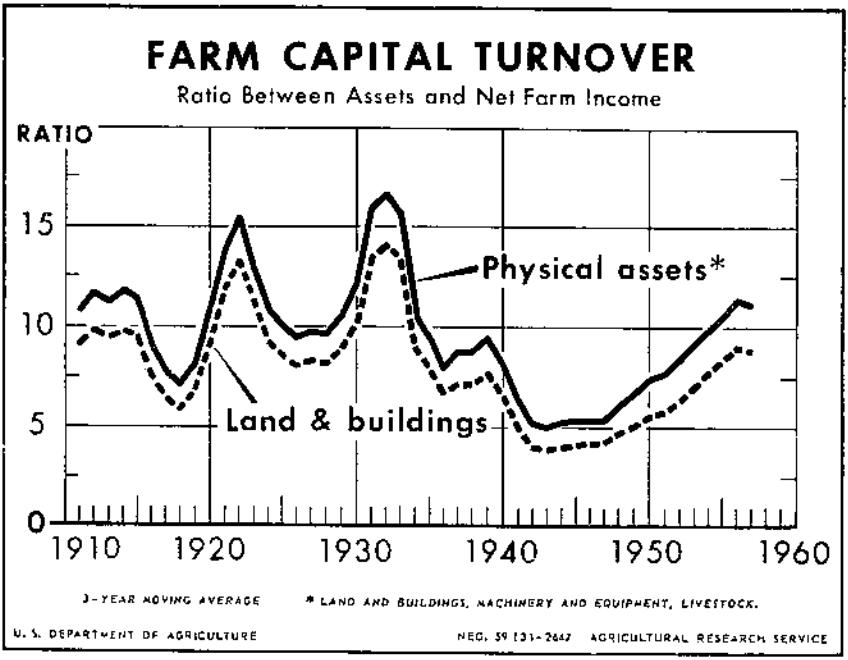

Figure 10

1910–57 (*49, p. 24*). Off-farm earnings of the operator or other family members, however, were not included in these comparisons. A low ratio during a period indicates that the opportunities for acquiring farm capital were favorable. A high ratio means that during this period asset values were high relative to farm income. Although wide fluctuations in this capital-earnings ratio were conspicuous during the four decades, a long-term increase is hardly apparent. Since the late forties, the ratio has risen, but the current relationship is still well below the previous peaks and is only moderately above that prevailing in 1925–29 and 1935–39.

It is not suggested that these data are definitive evidence that it has become easier for a young person starting with only a minimum downpayment to accumulate the capital needed for ownership of a commercial farm unit. But these data do cast doubt on the widely held view that during the last half century, it became increasingly difficult for a young farm operator to accumulate with no appreciable family help the capital for farm owner-operatorship. Further research is needed to determine which of these alternative views is valid.

Whether or not the real amount of capital required to own and operate an efficient family farm has increased during the years, the amounts needed relative to the earning potential of a typical farm family have been large enough to prevent wider attainment of the goal of owner-operated family farms.

A second phenomenon that has worked against the more widespread attainment of the goal of farm owner-operatorship is the persistence of a situation in which more persons are trying to earn a living in agriculture than can find remunerative employment there, a situation of long standing which has resulted in a continuous migration of large numbers of farm people from agricultural employments into other work. Interacting to bring about the trek from farm to city are the revolution in agricultural technology, the limited domestic and export demand for farm products, and the relatively high rural birthrates. Each of these factors is discussed in turn.

Revolution in Agricultural Technology

For more than a century, our agriculture has been undergoing a technological revolution. During the present century, the pace of this technological revolution has been accelerated, stimulated partly by the policy of Federal-State cooperative sponsorship of agricultural research, education, and extension. Improved technology, both on and off the farm, has enabled each farmworker to produce more than ever before. In the early 1800's, a farmworker produced only enough food and fiber to supply himself and 3 other persons. Necessarily, therefore, most of the population lived on farms. In 1820, for example, 93 percent of the population was classified as rural. By 1900, one farmworker produced enough for himself and almost 6 additional consumers, and by 1957 one worker produced enough farm products for himself and almost 23 other persons (fig. 11). Furthermore, as output per man-hour increased (fig. 12), the number of man-hours worked on farms declined (*50, pp. 27, 32–33, 43*).

The steady increase in efficiency of farm production and in total farm output (fig. 13) has many facets. Machine power has largely replaced animal power. The acreage formerly required to produce feed for these animals has been released for production of output for human use. Between 1915 and 1955, more than 80 million acres, or almost a fourth of our harvested acreage, was released in this way (*50, p. 14*). The increased use of mechanical power also made possible increased use of labor-saving machines. Use of fertilizer has increased fivefold since 1920; it will probably continue to increase. Other improved production practices increase output with little or no increase in inputs—improvements in breeds and varieties of plants and animals; better tillage practices; improved rations; and new and better control of weeds, insect pests, and diseases. Management of farms has been improved because of technical research by public and private agencies, improved general and technical education that reaches more people, and better public and private channels of communication. The impact of these developments on the efficiency of agricultural production is suggested by figures 11, 12, and 13.

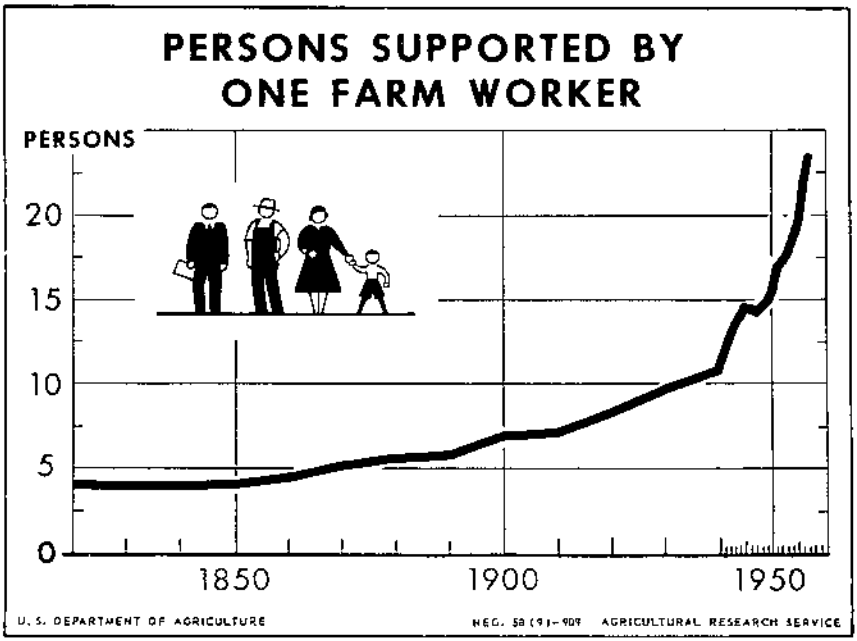

Figure 11

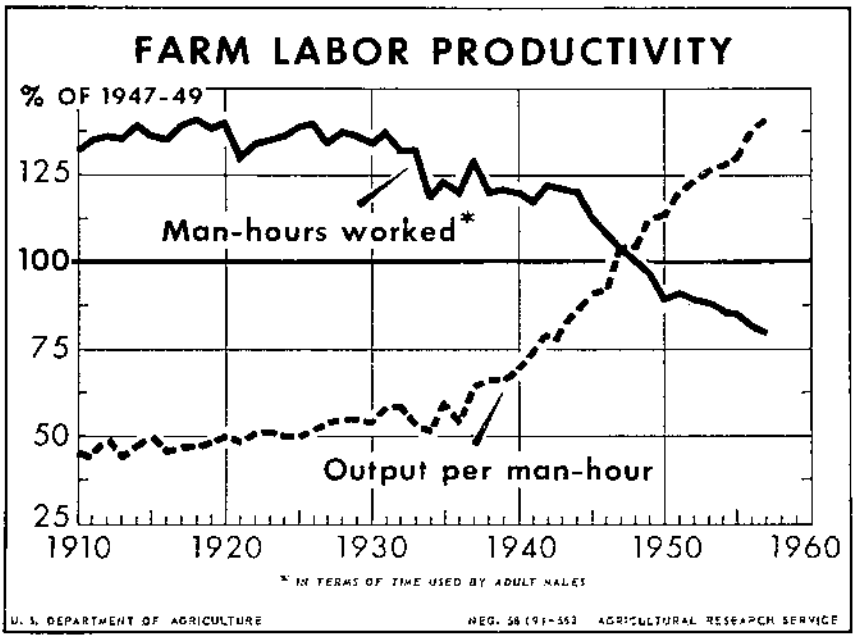

Figure 12

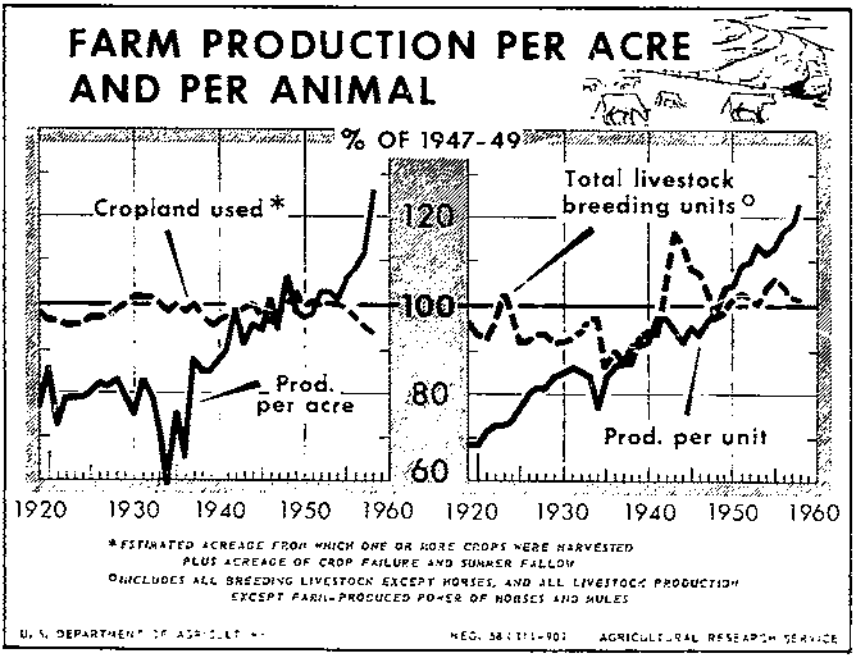

Figure 13

Domestic Demand for Farm Products Limited

The improvements in production techniques in agriculture, commerce, and industry—the basis for our rising material levels of living—have not affected all industries in the same way. Whereas, for most industries, the secular increase in per capita real income has resulted in proportional or greater increases in per capita consumption of the output of these industries, increases in per capita consumption of farm products have been moderate.

Consumers have spent relatively little of their increased real purchasing power on farm products. In recent years, increases in the per capita physical consumption of farm products appear to have been slight or nonexistent. The incomes of most consumers have been considerably above the subsistence level, and a healthy person can eat only so much. As a response to higher per capita real incomes and better knowledge of nutritional needs, however, consumer shifts from such traditional staples as potatoes and cereal products to the "protective" foods (meats, eggs, dairy products, and fresh and processed fruits and vegetables), which require more farm input per unit of output, have tended to increase the value of per capita consumption of farm products (*51; 47, pp. 43, 45*). But the tendency of consumers to buy more marketing and processing services along with their food has caused little or no increase in per capita consumption of what farmers produce.

Population Growth Means More Consumers of Farm Products

The increase in aggregate demand for farm products caused by growth in the total population of the United States (fig. 14) has been more important than the increase in demand resulting from small per capita increases in the quantity and quality of consumption as consumers' real per capita incomes increased. The population of the United States about doubled during the last half century.

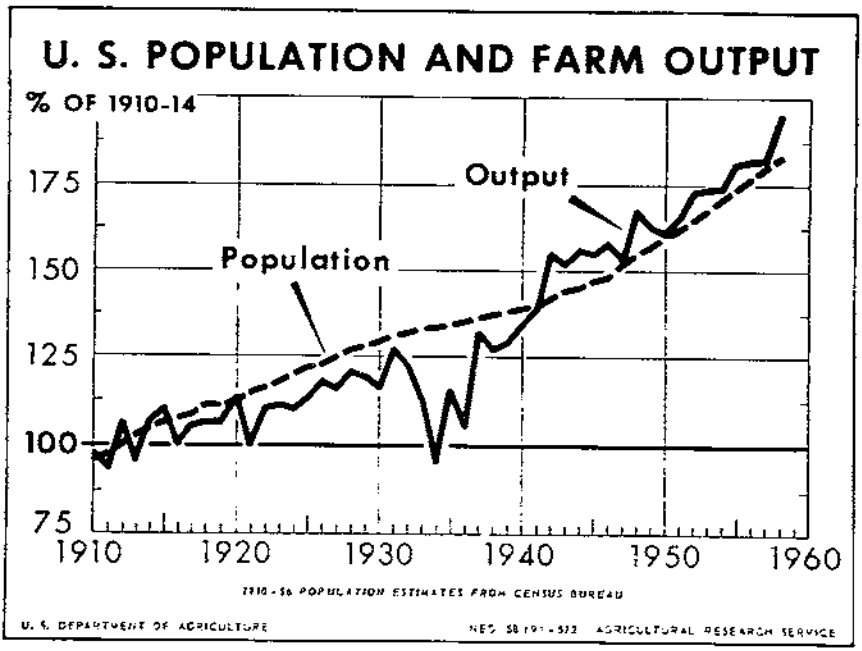

Figure 14

Export Demand Uncertain

The export market has been a fluctuating and uncertain component of aggregate demand for United States farm products. The percentage of harvested acreage used in producing exported crops indicates roughly the relative importance of exports to United States agriculture as a whole (fig. 15). From an average of 12 percent in the years preceding World War I, harvested acreage for export products rose to 19 percent in 1921 as a result of war devastation in Europe. During the rest of the 1920's, however, exports were only slightly above prewar levels, and during the worldwide depression of the 1930's, the percentage of harvested acreage used for exports dropped below 6 percent. The disruptions of World War II and the Korean conflict boosted our exports temporarily to a high of 16 percent in 1951. Thereafter, exports again turned down during the early fifties, rose to a high of 18.4 percent in 1956 under the stim-

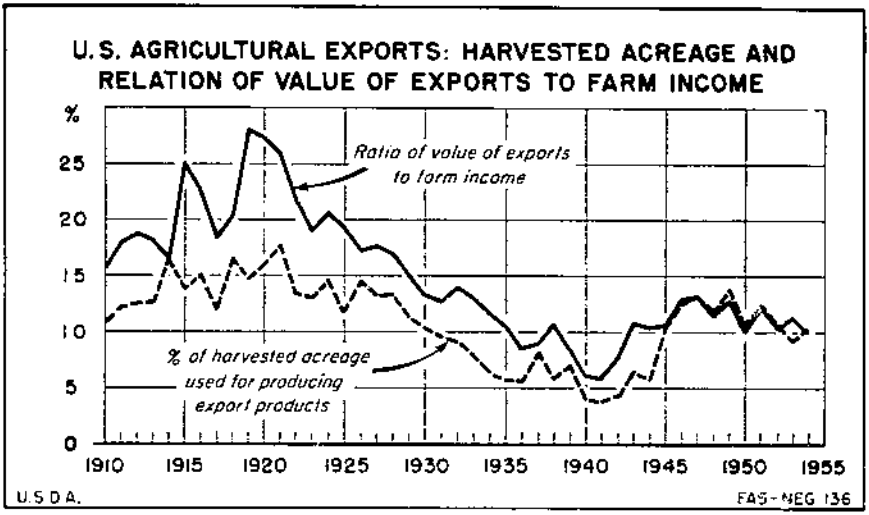

Figure 15

ulus of the "PL 480 Program," [11] and declined again during the two following years. In 1958, production of exported crops required only about 12.5 percent of the harvested acreage in the United States (*50, table 3*). For some specific commodities, however, exports were relatively more important and their variations much greater. Apparently, during the last 50 years, agricultural exports have tended to absorb a declining share of U.S. farm production.

Thus over the long run, the trend of agricultural exports has not bolstered aggregate demand for our farm products. Furthermore, the volatile nature of export demand for farm products doubtless meant less stable prices for these products. Unstable farm-product prices tend to affect the farm-tenure situation by making it more difficult for farm people to identify and adjust to long-term changes in agriculture and by making capital accumulation more difficult for individual farm operators.

Employment Opportunities in Agriculture

The increase in productivity per farmworker has been so rapid that during the last 40 years our farm labor force has decreased in size, while our total agricultural production has kept pace with the growing population and has continued to supply annually substantial quantities of food and fiber for export (figs. 14, 16). Almost continuously since about 1916, each succeeding year's larger output of farm products have been produced with fewer farmworkers. Although the number of job opportunities in agriculture has been declining for four decades, rural birthrates have remained far above rural death rates.

[11] Public Law 480, enacted in 1954, is an Act "to increase the consumption of U.S. agricultural commodities in foreign countries * * *" It provides "for the sale of surplus agricultural commodities for foreign currencies" and for furnishing "emergency assistance * * * to friendly peoples in meeting famine or other urgent or extraordinary relief requirements * * *" (*73*).

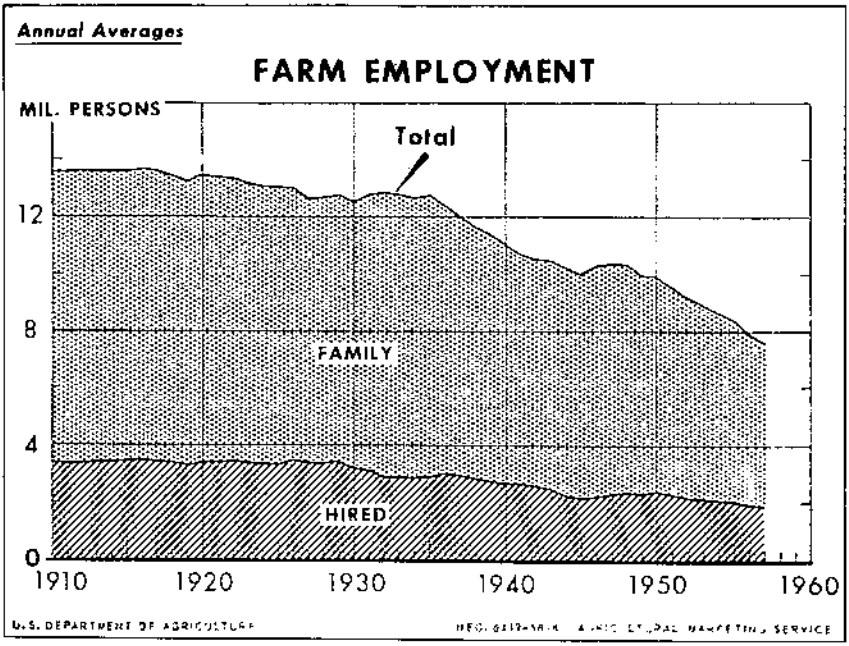

Figure 16

Farm Families Have High Birthrates

Throughout the history of the United States, birthrates prevailing among farm women have greatly exceeded rural death rates, resulting in a high rate of natural increase in the farm population (table 14).

While the number of farms was expanding, agriculture was able to absorb a considerable number of farm young people who were in excess of replacement needs.

The "replacement ratio" of rural-farm males—the ratio of the number of entrants into the 20- to 64-year age group per 100 de-

TABLE 14.—*Net reproduction rates, United States, selected years*

Population classification	Net reproduction rate, per 1,000 [1]			
	1905–10	1930–35	1935–40	1942–47
Urban	937	747	726	1,085
Rural nonfarm	1,499	1,150	1,150	1,465
Rural farm	2,022	1,632	1,661	1,859

[1] A net reproduction rate of 1,000 means that each generation would just replace itself, if birth and death rates of the specified period were to continue indefinitely, in the absence of net immigration. A rate above 1,000 implies a potentially gaining population, and a rate below 1,000, a potentially declining population.

Statistical Abstract of the United States (*55, 1954*).

partures through death or retirement, assuming no migration during the decade—indicates how much vocational off-farm migration has been required because of the high rate of natural increase of farm families (*12*). During the decade of the 1950's, the replacement ratio of rural-farm men for the United States as a whole is 168 entrants in the 20 to 64 year age group per 100 departures from the group through death or retirement. This means that 68 in 168 (about 40 percent) of the male children of farm families who reach the age of 20 during the decade must find employment outside agriculture, even if the number of job opportunities in farming remains constant. For the South, the replacement ratio for rural-farm males is above 200 and in some Southern States, it is even higher (fig. 17).

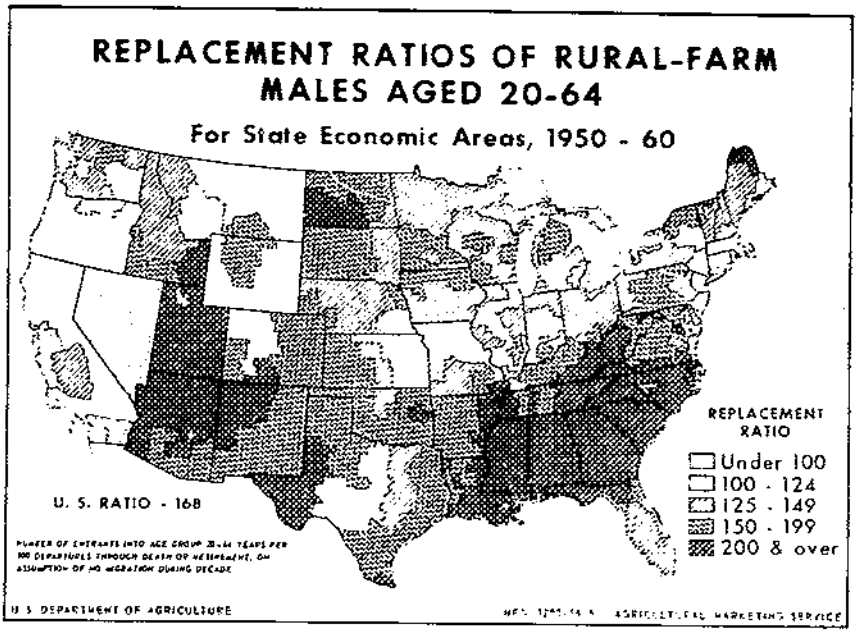

Figure 17

Thus both the secular decline in employment opportunities within agriculture and the high rate of natural increase among farm families have operated to require a continuous net movement [12] of farm residents into other pursuits, thus permitting farm people to experience rising material levels of living.

[12] Many individuals change jobs for reasons other than lack of employment opportunity or desire to increase their earnings. From the viewpoint of long-run adjustments in the use of human and other resources in agriculture, the relevant fact is the *net* change in the size of the agricultural labor force—the number of individuals who leave the agricultural work force for other employment minus the number who shift to agriculture from other employment.

Migration Out of Agriculture

For at least a century, large numbers of persons reared on farms have continued to change to nonfarm employment. By the time of the Civil War, when land was less dear and agricultural expansion still rapid, substantial numbers of our farm-reared young people sought a livelihood elsewhere (*39*).

Accurate data on mobility are available only for net off-farm migration since 1920. These data are measures of residential mobility; they do not reveal the occupational shifts of farm residents who take nonfarm jobs but continue to reside on farms. During the decade of the 1920's, net off-farm migration averaged about 630,000 persons per year; during the 1930's, the annual number dropped to around 380,000; and in the 1940's, annual net off-farm migration rose to about 950,000 persons. From April 1, 1950, through April 1, 1957, net off-farm migration apparently continued at an annual average of around 875,000 persons per year (*46, p. 9; 48, p. 6*). Figure 18 shows migration patterns by decades (*11a*). Figure 19 shows the South to be the region in which high rates of net off-farm migration were most prevalent during the 1940's. Considerable off-farm migration occurred also in the Great Plains, the Mountain States, and the cutover region of Wisconsin and Minnesota.

Rural Industrialization and Improved Transportation

The traditional trek from farm to city has been modified in recent decades as a result of developments in industry and transportation. Industrial employment became more accessible to farm residents as plants were established in towns and villages in predominantly rural communities. At the same time, good roads and dependable automobiles extended the boundaries of the farm resident's labor market. Hence, it is not uncommon for rural residents daily to commute as far as 40 or 50 miles to nonfarm employment. An increasing number of farm people have taken nonfarm jobs but remain on the farm. In 1930, only 14 percent of the employed persons living on farms were working at nonfarm jobs. By 1958, this proportion had grown to 40 percent (*56*). Easier access to nonfarm jobs has reduced the pressure of population on the land by making it possible for farm people to "migrate occupationally" without having to migrate geographically.

A related development is the growing number of farmers who work at industrial or other nonfarm jobs but continue to farm. According to the Census of Agriculture, between 1929 and 1954 the proportion of farmers who worked off the farm 100 days or more increased from 11 to 28 percent, while the proportion who worked 200 days or more off the farm increased from 6 to 21 percent (*53, 1954, v. 2, p. 81*). (However, these figures include some farm operators who worked for wages on other farms.) Besides reducing the pressure of population on farmland, part-time farming appears to be associated also with farm ownership. The availability of farm tenants for off-farm work is limited because landlords are likely to discourage off-farm work that might interfere with efficient operation of the farm.

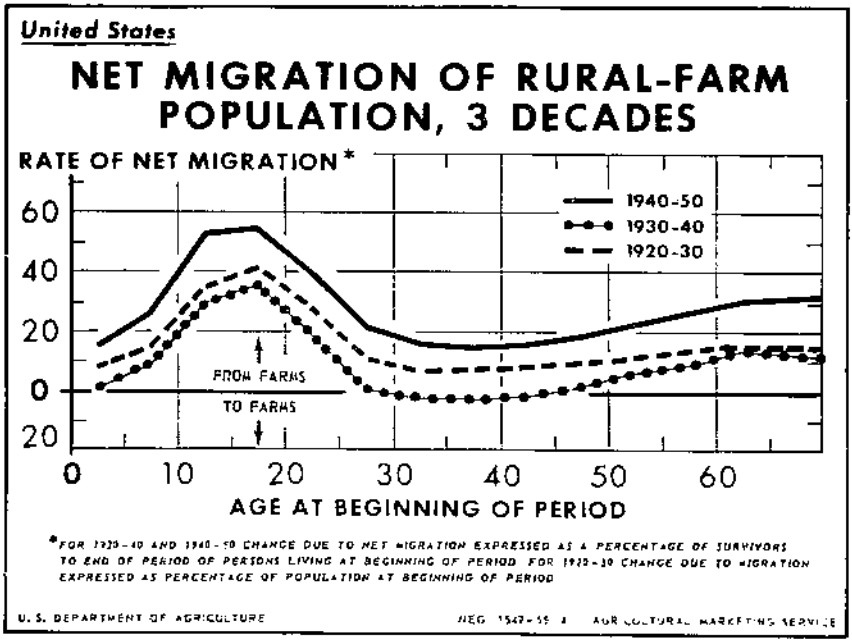

Figure 18

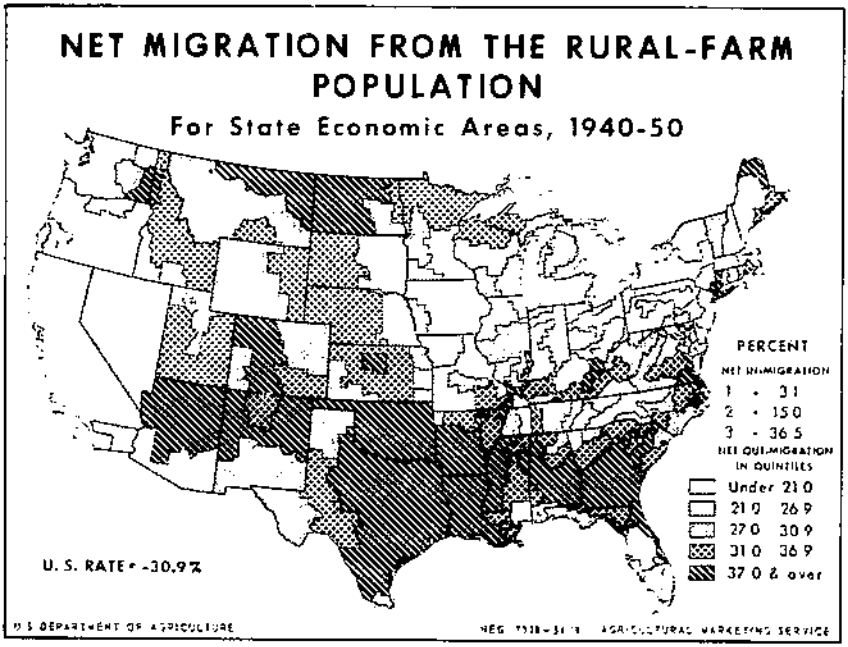

Figure 19

Off-Farm Movement of People Continues

The movement of farm people into other employment has persisted and will probably continue. Improvements in farm production that reduce the number of workers needed in agriculture are part of a continuous stream of scientific developments. Similarly, farm families continue to have numbers of children that more than replace the parents.

For farm people, the difficulty is that even while they are adjusting to past technological innovations and rural reproductive rates, further innovations and continuing high reproductive rates mean additional adjustments in the future. Farm youths who come of working age more than replace the older persons who leave the farm work force because of retirement or death, and new improvements in farm production cause a further shrinkage in number of job opportunities in agriculture.

For several decades, therefore, agriculture has had more workers than would have been necessary if farmwork had been about as remunerative as other employment.

Number of Farmworkers in Relation to Their Tenure Status

The persistence in agriculture of more labor than needed affects the farm-tenure situation in several respects, compared with what it would be otherwise. When greater numbers of hired farm laborers and sharecroppers seek jobs in a particular farming community, many farm laborers and croppers must accept less desirable tenure opportunities than would otherwise be necessary.

Similarly, when more persons—tenants, croppers, and farm laborers who want to become tenants—try to rent farms in a locality, probably many must be satisfied with the less attractive tenure situations. Some become sharecroppers or remain farm laborers; others rent the smaller or poorer farms; and still others operate under the less appropriate types of rental arrangements. Finally, some of the excess number of persons in the farm work force are tenants and owner-operators looking for land with which to enlarge their farming operations into more efficient family-farm units. The prices and rental rates for agricultural land are therefore higher than they would be otherwise, and the process of farm enlargement is retarded. In these ways, too many workers in agriculture directly and immediately worsen farm-tenure arrangements at all levels.[13]

Number of Farmworkers in Relation to Their Levels of Living and Accumulation of Capital

This pressure of population on land affects the farm-tenure situation in other ways also, depressing returns to human effort in farming. It tends to lower levels of living of farm families. It tends also to make it more difficult to accumulate the net worth necessary

[13] The process through which farm-tenure arrangements are affected is a local one. The supply of labor is greater in some agricultural areas than in others; and the characteristics of the agricultural labor force of one locality differ from those of another. Hence, the results differ somewhat in different localities.

to own and operate an adequately sized, stocked, and equipped farm.

In our society, the necessary reallocations of labor, land, and capital between agriculture and other employments are brought about largely by market forces. So long as agriculture has more labor than needed, the return attributable to labor in agriculture tends to be depressed—whether the return is received as the wage of a hired laborer or the labor part of a tenant's or owner-operator's net farm income. This results from two considerations: First, a weakened competitive position of farmworkers whose return—measured in physical units of farm products—is decreased; and second, a lowering of the prices of farm products as aggregate output is increased by the larger labor supply.[14] Conditions in the various regions and localities of the United States differ as to excess of labor in agriculture.

The view that monetary rewards to labor in agriculture have been lower than they would have been if there had been no surplus of agricultural labor is supported by the empirical evidence available. First, the long history of off-farm migration in the United States is in itself strong presumptive evidence. Second, several comparisons of the estimated real earnings of farmworkers and of industrial and other workers in the United States show that returns to human effort in agriculture have been below returns in other industries at all times for which these data are available (*14, pp. 220–222; 17, p. 95; 6, pp. 186–191*).[15] Third, an international comparison of the ratios between agricultural and industrial wages for various advanced countries in selected years before World War II reveals that rural wages were substantially below industrial wages for almost all the instances studied (*16; 14, pp. 226–229*). Apparently, the United States—some of its regions especially—has not been alone in experiencing lower returns to human effort in agriculture compared with nonagriculture. Causes in all instances have been the relative supply of labor in agriculture which results from high birthrates among farm people, advances in methods of agricultural production which have outrun population growth, and the individual and social costs and difficulties associated with the reallocation of labor.

Outmigration Takes Capital from Agricultural Community

The continuing movement of human resources out of agriculture has a further indirect result. The migration itself withdraws capital from the agricultural community. Withdrawal of capital occurs in two ways as farm people leave the agricultural community.[16]

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[14] Expressed in the formal terminology of economics, when an industry, say agriculture, is oversupplied with a factor, say labor, the mechanism of market prices tends to depress the value return to labor employed in agriculture: (1) By decreasing the marginal physical product of agricultural labor while increasing the marginal physical return to land, each respectively compared with what it would have been at an "equilibrium" between agriculture and nonagriculture; and (2) by depressing the price per physical unit of the agricultural commodity produced, demand being price-inelastic for most farm products. The joint result is thus to reduce the value of the marginal product of labor in agriculture relative to that in other uses.

[15] Thompson, Proctor. THE PRODUCTIVITY OF THE HUMAN AGENT IN AGRICULTURE: AN INTERNATIONAL COMPARISON. Thesis, Ph. D., University of Chicago. [Unpublished.]

[16] This is not to imply that the income and capital positions of agriculture would be improved if such outmigration of labor from agriculture were to decrease or cease.

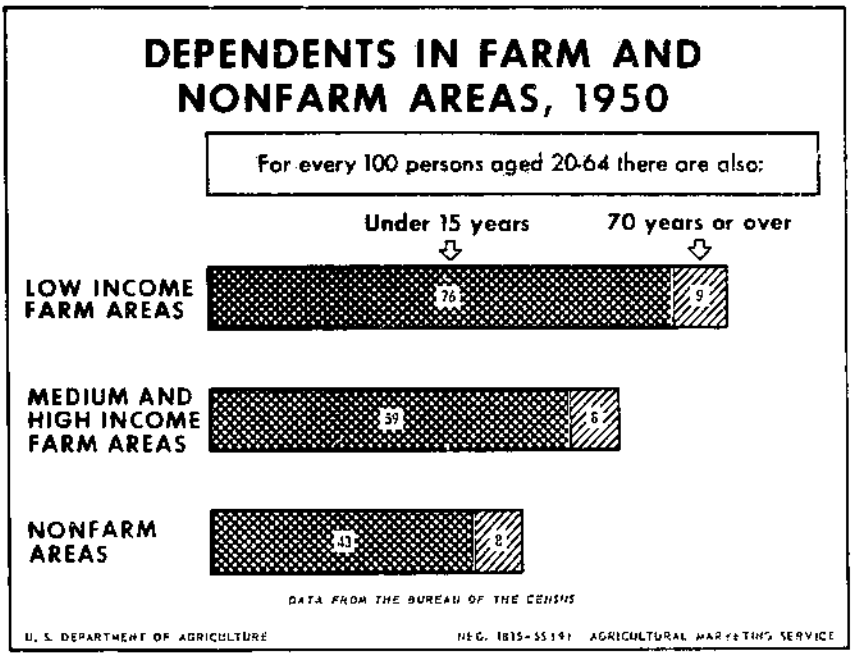

Figure 20

First, the expenditures for food, clothing, housing, medical care, recreation, education, and spending money for the farm children and young people who later migrate to nonfarm employment are a considerable financial drain on their families and on the farm community (fig. 20). A relevant study of Tennessee conditions estimated conservatively that in 1949 the farm family's cost of rearing each child to the age of 15 was between $3,000 and $5,000, depending upon the amount of the family's income.[17] If public expenditures for education and other services to children are added to family expenditures on children, the local community's total real net social cost of rearing a farm youth is seen to be relatively great. In a real sense, these expenditures constitute capital investments in young people.

If a farm family must spend money to bring up children who soon leave the farm community to live and work elsewhere, however, these expenditures represent money that could not be used either to increase the capital with which the family operates the farm business or to afford a higher material level of living. When a young person leaves agriculture, the farm community may be said to have depleted its capital by transferring to the nonfarm sector capital in the amount of its share of the net social cost of rearing the individual. This is why the stream of off-farm migrants has been referred to as

[17] Calculations made by Erven J. Long and Peter Dorner (*33*) include among the family's costs an interest charge at 2 percent of expenditures. They do not include therein the community's costs of such public services as health, recreation, and education provided at taxpayers' expense; nor do they deduct therefrom the value of the youth's labor on the home farm or elsewhere. These calculations may be compared with those made by O. E. Baker (*4*); and James D. Tarver (*43, 42*).

agriculture's "great export" (*25*). From the viewpoint of the farm community, farm families carry the costs of rearing more than their share of the Nation's children.

Outmigration results in capital being withdrawn from the farm community in a second way. Usually when farm-reared young people who have left agriculture inherit their share of the parents' accumulation of farm capital, they withdraw it from the farm economy.[18] When an off-farm migrant leaves his inheritance invested in agriculture, the return to his share of the land and capital usually goes to the nonfarm community. Therefore, it is not available for current living expenses or for accumulation of capital in agriculture.

The nonfarm sector of the economy, however, must provide the new jobs for those who shift from farming to other employment. This requires capital. But the formation and maintenance of capital is probably more difficult in the farm sector of the economy than elsewhere. In agriculture, the individual family is at the same time the consuming and saving unit and the producing unit. For the farm family as a producing unit, the difficulty is that the labor of its own members uses other productive resources provided at least partly by the family itself. To be able to operate an efficient farm, a farm family must have a relatively large net worth. If the family works a small, unproductive and poorly equipped farm, the returns to the labor of its members will be meager. But in the nonfarm sectors of the economy, individual families usually do not own the particular capital goods their members use at their jobs. For the most part, these capital goods are owned and provided by persons outside the workers' families. Compared with farm families, the productivity of members of individual nonfarm families depends less on each particular family's financial net worth.

Long Duration of Agricultural Adjustments

For many years now farmers have made the economic adjustments to high rural birthrates and to reductions in the agricultural labor force that result from improvements in methods of agricultural production. The long duration of this adjustment process makes it especially important for the tenure situation of farm people. Even during the latter half of the 19th century when the agricultural labor force was still growing, net off-farm migration was necessary. The high rural birthrates provided more than the additions to the agricultural labor force needed to support the larger total population. After 1910 or 1915, when improvements in methods of agricultural production began to outrun the growing total population, the rate of off-farm migration was further increased. Hence, the pressure to maintain a continuous migration of labor out of agriculture has been continuous for at least a century.

The supply of labor in agriculture has tended to: (1) Increase competition for tenure rights in land and therefore to affect farm

[18] Some of the nonland productive resources used in agriculture are not specialized for farming. In the short run, they are transferable to nonfarm uses. Other nonland productive resources, although specialized for agriculture, wear out and must be replaced; over time, these resources are transferable to nonfarm uses. Therefore, reduction in the *total* of farm families' claims to productive resources is likely to result in a net reduction in the stock of nonland capital used in agriculture.

tenure arrangements; (2) lower the return to human effort in agriculture and therefore the living levels of owner-operators, tenants, sharecroppers, and laborers; and (3) increase the difficulty of accumulating the net worth essential to tenure progress. Off-farm migration tended also (4) to withdraw capital from agriculture and reduce the net worth of farm families.

This continuing process of adjustment largely explains why farm-tenure problems in general became more acute after the turn of the century and why they became especially acute in certain areas. What is remarkable is that in the country as a whole the farm-tenure situation has not become even more difficult. Moreover, a speedy end to the need for continuing vocational outmigration of labor from agriculture cannot be expected.

UPS AND DOWNS IN BUSINESS CONDITIONS

Unpredictable cycles of ups and downs in general business conditions have also intensified farm-tenure difficulties through the years. During business depressions, (1) off-farm migration of population is retarded and (2) farm-product prices and farm incomes are lowered. During periods of inflation, (3) farmland prices may advance to levels dangerous for those who borrow heavily to buy farms. Also, (4) fluctuations in business tend to obscure long-term agricultural trends. Each of these influences is discussed in turn in the pages that follow.

Depressions Retard Off-Farm Migration

During periods of industrial and commercial expansion, nonfarm jobs are available to those who wish to leave agriculture. In such periods, farm people have continued to change to nonfarm jobs in large numbers; and the pressure of population on the land has not increased. Periods of unemployment and depressed business conditions result in a backing up of population on the land, because few nonfarm jobs are available for the farm people who would like to leave agriculture for other employment.

The influence of general business conditions on the rate of off-farm migration, for example, is conspicuous in data of recent decades. During the fairly prosperous twenties, net off-farm migration continued at an annual average of about 630,000 persons per year. During several years of the depressed thirties, however, the flow of net off-farm migration was reversed. For the decade as a whole, the annual average was only around 380,000 persons per year. For the prosperous decade of the 1940's and the favorable period from April 1, 1950, through April 1, 1957, the annual averages of net off-farm migration were about 950,000 and 875,000 persons per year, respectively (*46, p. 9; 48, p. 6*).

Periodic increases in the pressure of population on the land resulting from business unemployment and depression mean immediate increases in competition between farm people for tenure rights in land and in the numbers of persons in the lower farm-tenure categories.

Depressions Lower Farm Incomes

Several considerations combine to cause farm incomes to fall during periods of business depression. Demand for farm products tends to weaken, because city people with reduced incomes cannot afford to buy as much food or food of as high quality as in prosperous times. The supply of farm products tends to be maintained, or may even be increased, because individual farm families try to bolster their incomes by sustaining output and because more labor is available as a result of the slowing down of off-farm migration. In the absence of government intervention, farm-product prices therefore tend to drop greatly during business depressions. At the same time, the reduced farm income must be divided among the larger number of persons in agriculture.

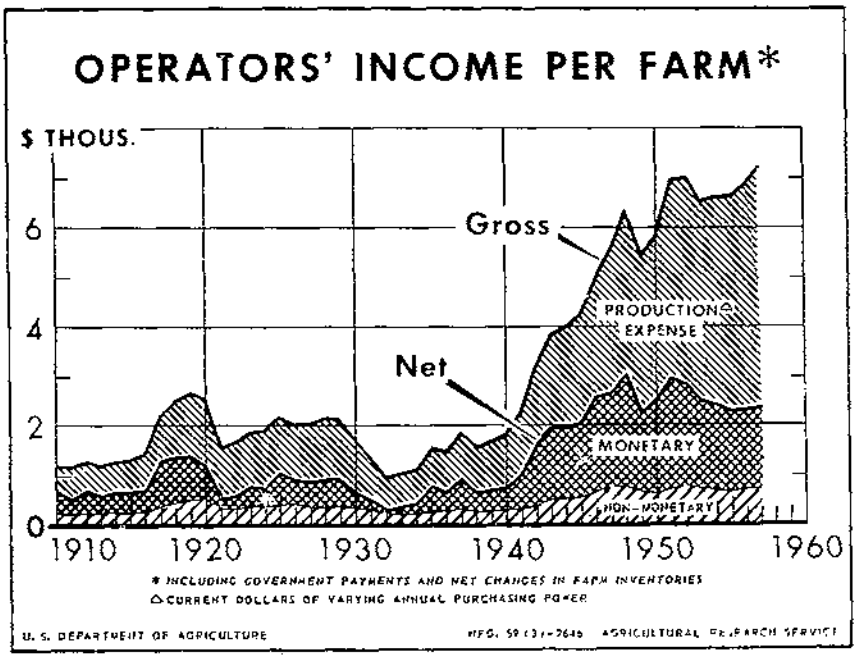

Figure 21

Declines in average net income per farm during depressions may be seen in figure 21. The sensitivity of farm-wage rates to general business conditions is reflected in figure 22.

Business depressions thus lower the levels of living of owner-operators, tenants, family workers, sharecroppers, and hired laborers alike. Also, during these periods, farm families find it difficult and sometimes impossible either to accumulate capital for the eventual purchase of enough land, livestock, and equipment for an efficient farm or to pay off loans on mortgaged farms.[10]

[10] A recent Virginia study (27) shows how from 1923 to 1951, the opportunity for a farm operator to accumulate capital varied with changes in business conditions.

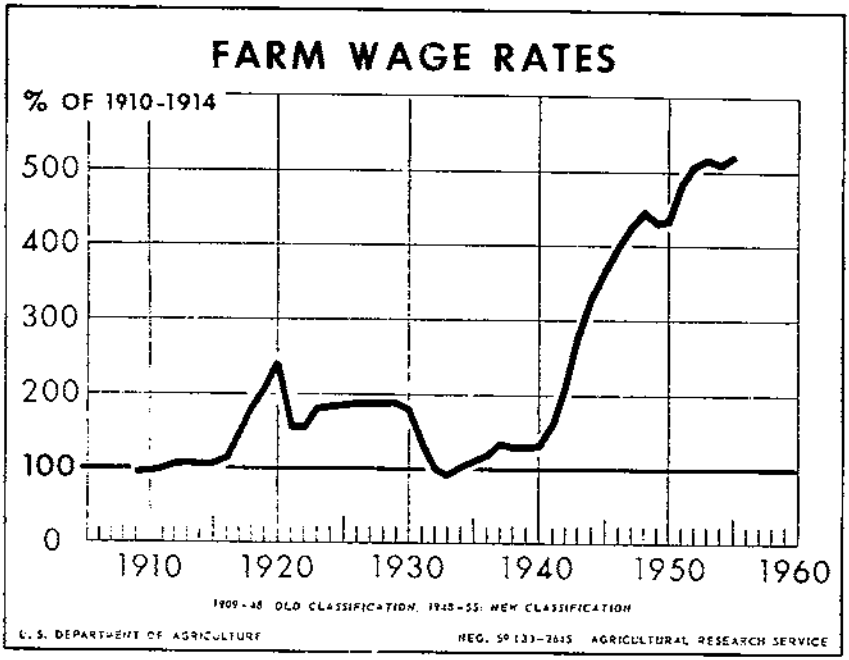

Figure 22

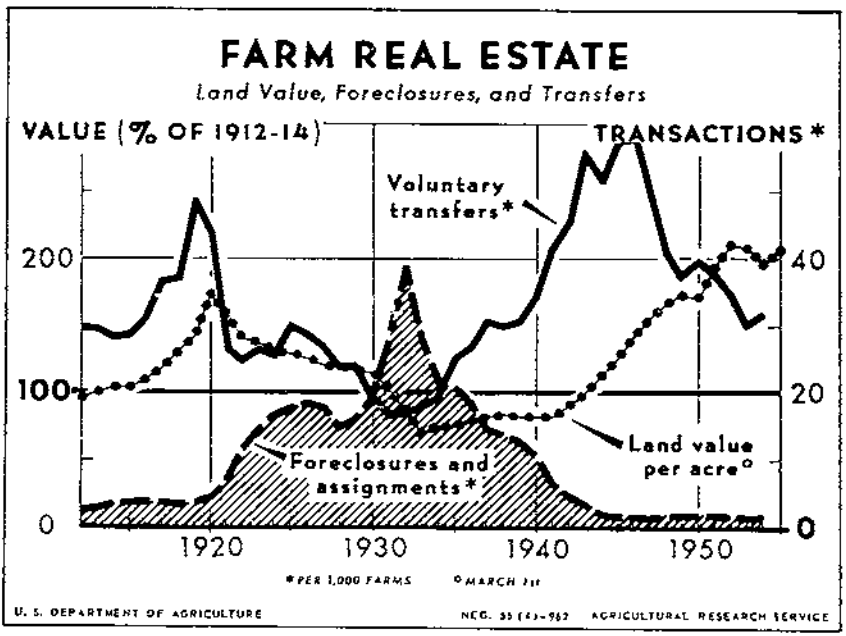

Figure 23

Prosperity May Inflate Farmland Prices

Fluctuations in business conditions also affect the farm-tenure situation because of their effects on the price of farmland. During periods of general prosperity and especially during periods of inflation, the price of farmland tends to rise; in periods of general depression, it tends to fall. Debts for the purchase of high-priced land contracted while prices for farm products were favorable become burdensome or impossible to carry during periods of depression when prices of farm products and farm incomes are low.

The general distress and the farm-tenure difficulties in agriculture during the 1930's resulted partly from a situation of this kind. Many operators had bought farms at the inflated real-estate values that prevailed around 1920. After farm-product prices declined, these operators found it difficult to pay off real-estate loans contracted when farmland values and farm-product prices were at record levels; and many were unable even to meet the interest charges on these loans. The accompanying decline in farmland values caused operators' equities to drop sharply or vanish entirely. The decade of the 1930's therefore witnessed an unprecedented wave of farm foreclosures (fig. 23). During this period of distress, many owner-operators had no alternative but to become tenants or hired laborers.

Business Fluctuations Obscure Long-Term Agricultural Trends

The recurrence of fluctuations in business tends also to obscure the long-run trends to which agriculture is subject and the individual adjustments farmers need to make. Farm incomes are temporarily improved during periods of business prosperity and reduced during periods of general depression. This variation makes it more difficult for farm people to recognize that the average level of farm incomes over both good and bad times results from the long-term trends to which agriculture is subject. These trends have caused agricultural incomes (averaged over the business cycle) to have been unfavorable compared with other employment and lower than they would otherwise have been.

RECENT IMPROVEMENTS IN THE FARM-TENURE SITUATION

The description of changes in the tenure status of farmworkers during the last three-quarters of a century suggests a second question. What forces caused the dramatic improvement in the farm-tenure situation that began after 1930, proceeded more rapidly after 1940, and returned the tenure status of farmworkers to its 1880 level? To explain this change in the farm-tenure situation, four phenomena must be considered: (1) The evolution of a system of public farm-credit institutions; (2) the changes in transportation and communication available to farm people; (3) the wartime experience of farm people; and (4) the long period of general prosperity and full employment that began in the early forties.

EMERGENCY MEASURES DURING THE 1930's

In the critically depressed period of the early thirties, farm people, like others, asked for and received various kinds of emergency assistance from the Federal Government. These were stop-gap activities designed to deal with temporary hardships. Although they operated for only a few years, the beneficial effects of these emergency measures doubtless continued to be felt throughout the lives of the families who were helped to retain ownership of their farm land and capital during the critical period of the early thirties.

Under the Emergency Farm Mortgage Act of 1933, farm mortgages were refinanced through Federal land bank loans supplemented by emergency Land Bank Commissioner loans. Both were usually at lower rates of interest and with longer repayment periods. Sometimes, debt readjustment was involved. Under the act, the maximum allowable size of land bank loan was doubled; and loans were made by the land banks directly to farmers who did not have access to local farm-loan associations (*7, pp. 280–282; 35, pp. 30–31*).

The Resettlement Administration, which was established by Executive Order in 1935, undertook to correct certain chronic problems that were associated mainly with marginal agricultural areas. It bought "submarginal" land, combined it into management units under government control, and resettled displaced families on better land; it attempted the rehabilitation of low-income farmers by extending them loans and outright grants, together with educational effort and technical supervision; and to a limited extent, it attempted to develop "subsistence homesteads"—small homes on little plots of ground (*7, pp. 324–327*).

The Farm Security Administration, which was established by Executive Order in September 1937 to succeed the Resettlement Administration, emphasized certain types of assistance: (1) Rehabilitation loans and grants to farm owners, tenants, croppers, and farm laborers who could not otherwise obtain government-sponsored credit; (2) tenant-purchase loans to qualified tenants, croppers, and farm laborers at low interest rates and with long repayment periods and variable annual payments; (3) experimental work to devise new types of housing and new building methods that would improve the quality and lower the cost of farm housing; and (4) temporary camps to provide minimum accommodations for displaced and destitute migrant farm families. In 1946, the Farm Security Administration was abolished by the Farmers Home Administration Act. Under the new agency only the tenant-purchase and rehabilitation-loan programs were continued, but they came to be accepted as regular programs (*7, pp. 362, 493–494*).

The emergency measures of the depressed thirties doubtless helped to bring about some of the moderate improvements in the farm-tenure situation that occurred during the decade, despite the adverse economic conditions of the period. Furthermore, experiments made during this period helped to develop the basic framework for present-day Federal credit agencies. But the emergency measures that did not become permanent features of our public farm-credit policy probably had little long-range effect on the farm tenure situation.

PUBLIC FARM-CREDIT INSTITUTIONS

In 1916 and 1923, the first important steps were taken in the evolution of a publicly sponsored farm-credit system. Other important farm-credit developments came during the 1930's, under the stimulus of the acute financial distress experienced by farmers at that time. The Farmers Home Administration and the system supervised by the Farm Credit Administration became the two chief Government-sponsored farm-credit agencies. Their activities have helped to bring about improvement in the tenure status of farmworkers since 1930.

The Cooperative Farm-Credit System

During the closing decades of the 19th century, farmers became increasingly concerned about the mortgage-credit facilities available to them. From the time of settlement, the fast-growing western farm areas had been short of loan funds. The private farm-mortgage corporations that developed for buying and selling mortgages were often inadequately capitalized and loosely supervised. Their methods of operation left much to be desired. Interest rates were high, loans were limited to short periods, and lending practices were sometimes questionable. With the rapid rise in land values toward the turn of the century and the scarcity of good land for homesteading, more farmers became concerned over the scarcity and high cost of farm-mortgage credit (*7, pp. 145–146*).

The Federal Farm Loan Act of 1916 was the first important Federal intervention in the farm credit situation. This act authorized both a cooperative system of Federal land banks and national farm loan associations and a system of privately financed joint-stock land banks. Both of these systems were to be supervised by the newly created Federal Farm Loan Board and both were required to adopt the amortization plan of repayment of loans. During the late twenties, the inadequacies of the private joint stock land banks became apparent, and 1933 legislation required their liquidation. In the long view, the significance of the Federal Farm Loan Act of 1916 was its establishment of the farmer-owned cooperative system of regional Federal land banks and local farm loan associations, which is now a permanent feature of farm credit facilities in the United States (*7, pp. 146–147; 35; 62*).

The Intermediate Credits Act of 1923 was the second major Federal legislation on farm credit. It set up a system of 12 regional intermediate credit banks, which were associated with the 12 Federal land banks, capitalized directly by the Federal government, and supervised by the Federal Farm Loan Board. However, these intermediate credit banks could not loan directly to farmers. They were empowered only to make loans to cooperative associations and to discount the commercial paper submitted by agricultural credit corporations, livestock loan companies, and local banks. When it developed that these local agencies made relatively little use of the facilities of the Federal intermediate credit banks, the performance of the new system for a time proved to be less helpful to farmers than had been anticipated (*7, pp. 185–187*).

The final steps in the establishment of a balanced and integrated cooperative credit system for commercial family farms were taken

during the acute financial distress experienced by farmers in the early thirties. An executive order of March 27, 1933, created the Farm Credit Administration and the land banks and intermediate credit banks were brought under its supervision. The Farm Credit Act of 1933 established two new credit groups to operate under the supervision of the Farm Credit Administration: (1) A central bank and 12 regional banks for loans to cooperatives; and (2) a system of 12 regional production credit corporations (merged with the Federal intermediate credit banks January 1, 1957) to organize, supervise, and finance local production credit associations, thus providing a broader outlet for funds from the Federal intermediate credit banks (*7, pp. 280–283; 61, 1955–56, pp. 35–38, 1956–57, pp. 36–39, 44–47*).

Since 1933, the cooperative Farm Credit System, supervised by the Farm Credit Administration, has functioned effectively, not only in meeting emergencies and providing agricultural credit in more normal times but also in introducing desirable procedures and standards later adopted by other lenders. Its comprehensive credit programs for family farmers have tended to benefit the farm-tenure situation. In recent years, the laws have allowed both land bank and production credit association loans to part-time farmers. From 1917 through June 30, 1958, more than 1.5 million Federal land bank loans were made. The total amount loaned exceeded $7 billion. From 1923 through June 30, 1958, the Federal intermediate credit banks made loans to and discounts for the following types of institutions in the amounts shown: Production credit associations, $24.2 billion; other financing institutions, $4.4 billion; banks for cooperatives, $2.1 billion; and cooperative associations, $1.1 billion. From their establishment in 1933 through June 30, 1958, the banks for cooperatives loaned more than $8 billion to various farmer cooperatives (*61, pp. 46, 61, 92*).[20]

Although they were not created to serve any particular income group of farmers, for the most part, the facilities of the cooperative system supervised by the Farm Credit Administration are used by commercial farmers. Operators who might be classed as "low-income" farmers use them very little. Loan policies of the cooperative banks and associations are conservative, both because of legal restrictions on their lending practices and because of the necessity to keep loan losses within the capacity of the system's earnings (*31, pp. 41–44; 62, pp. 10–16; 63; 64*).

The Farmers Home Administration

The Farmers Home Administration serves a somewhat different income group of farmers than that served by the Farm Credit Administration. The idea of a federally sponsored farm-credit system especially designed to serve the disadvantaged within agriculture first gained prominence during the 1930's. This system has two distinguishing features: (1) Its credit programs serve those unable to obtain credit from other public or private agencies; and (2) its credit activities are accompanied by programs of educational and technical assistance to individual farmers. The principle of supervised public credit for farmers who are otherwise unable to obtain credit was

[20] Data for fiscal 1958 from the files of the Farm Credit Administration.

first put into effect on a small scale under the Resettlement Administration. It was enacted into law on a larger scale under the Bankhead-Jones Farm Tenant Act of 1937. Shortly thereafter, the name of the organization was changed to the Farm Security Administration. Since the Farmers Home Administration Act of 1946 was passed, the program has been administered by the Farmers Home Administration (*7, pp. 324–327, 358–364, 492–494*).

The original provisions of the Bankhead-Jones Farm Tenant Act that are of long-range importance are the two direct loan programs for farm ownership and operating credit. In 1946, the Farmers Home Administration was also empowered to insure certain farm-ownership loans made by private lenders.

Direct and insured farm-ownership loans are made to enable persons "to acquire, repair or improve family-sized farms, or to refinance indebtedness against undersized or underimproved units when loans are being made or insured . . . to enlarge or improve such units. Loans may also be made or insured for improvements needed to adjust farming operations to changing conditions (*74, Title I, Sec. I*)." Low interest rates (not more than 5 percent per year) and long amortization periods (up to 40 years) are provided for (*74, Title I, Sec. 3*).

Real-estate credit and supervisory assistance may be extended to farm owners, farm tenants, farm laborers, and sharecroppers, if after the loan they "will be owner-operators of family-type farms that will provide adequate income to meet living and operating expenses and amounts due on their loans." Persons in two special categories are also eligible for FHA real-estate credit: disabled veterans and other owner-operators of "less than family-type farms," if farm income, together with income from other sources (including veterans' pensions), will provide adequate income to meet living and operating expenses and amounts due on their loans (*69*). To be eligible for an FHA farm-ownership loan, an individual must meet certain other requirements. He must: (1) "Possess the character, ability, industry, and experience necessary to carry out successfully the proposed farming operations * * *;" (2) "be unable to obtain credit sufficient in amount to finance his actual needs at rates * * * and terms prevailing in or near his community for loans of similar size and character from responsible sources;" (3) "have or be able to obtain the operating capital, including livestock, machinery, and equipment, essential for the successful operation of the proposed system of farming;" (4) "plan to live on and operate the farm;" (5) "be a citizen of the United States;" (6) "possess legal capacity to contract for the loan;" and (7) be an individual "who obtains, or recently obtained, a substantial portion of his income from farming operations," or be "a veteran with previous farming experience or training (*69*)."

Operating loans are made by the Farmers Home Administration "for the purchase of livestock, seed, feed, fertilizer, farm equipment, supplies, and other farm needs, the cost of reorganizing the farming enterprise or changing farming practices to accomplish more diversified or more profitable farming operations, the refinancing of existing indebtedness, and for family subsistence (*74, Title 2, Sec. 21*)."

Such production credit and supervisory assistance may be extended (1) "to farmers and stockmen who are operators of family-type farms," and (2) to bona fide farmers of smaller than family-

type units "who have historically resided on farms and depended on farm income for their livelihood, * * * if the units are of sufficient size to produce income which, together with income from other sources, including pensions in the case of disabled veterans, will enable them to meet living and operating expenses and the amounts due on their loans (*74, Title 2, Sec. 2*)." Other eligibility requirements for receiving operating loans are similar to those for farm-ownership loans, except that "the amount of each loan will be limited to the needs of the applicant and his ability to pay," normally not to exceed a total principal indebtedness of $10,000, except when type of proposed farming operation or unusual operating needs require an indebtedness in excess of $10,000, but under no conditions to exceed $20,000 (*71*).

In addition to making operating loans and real estate loans, the Farmers Home Administration is empowered to make various kinds of emergency, farm-housing, and soil- and water-conservation loans (*70, 77, 74, 75, 72*). Of the three latter, emergency loans have drawn the largest number of borrowers (*59*).

The Farmers Home Administration gives supervisory assistance to families who take out FHA farm-ownership loans, operating-credit loans, and some types of soil- and water-conservation loans. These borrowers receive assistance in preparing farm and home plans, keeping farm records, obtaining advice on farm and home problems, and analyzing their operations. Ordinarily, persons who receive emergency and farm housing loans do not receive supervisory assistance. Recipients of soil- and water-conservation loans receive supervisory assistance from FHA personnel only when the county supervisor decides that the borrower needs assistance (*71, 70, 66, 69, 68, 67*).

FHA loan programs of greatest importance to the tenure status of disadvantaged farm people are (1) the program of operating credit and (2) the programs of direct and insured farm-ownership loans. However, these programs have not reached relatively large numbers of farm families.

The operating-credit program is larger than the farm-ownership loan program. From 1938 through 1957, the operating-credit loans made totaled approximately $2.3 billion (*60, 1957, p. 624*).[21] During this period, direct farm-ownership loans totaling approximately $548 million were made to 76,000 new borrowers. From initiation of the insured farm-ownership loan program late in 1947 through 1957, FHA insured farm-ownership loans totaling approximately $181 million were made to about 17,500 new borrowers (*60, 1957, p. 623*).[21]

The relatively small scale of operations of the FHA farm-ownership loan program has resulted from several considerations. The statutory limitation on the maximum amount that may be appropriated annually for direct farm-ownership loans is $50 million, and the maximum amount for insured farm-ownership loans that may be made during any one year is limited to $125 million (*74, Title 1, Sec. 5, 12b*). In many years, however, the amounts actually appropriated for direct FHA farm-ownership loans are less than half the maximum authorized; and the private credit available for FHA insured farm-ownership loans is well under the maximum that may be insured annually.

[21] Data for 1957 from the files of the Farmers Home Administration.

The Bankhead-Jones Farm Tenant Act, as amended, places no statutory limitation on the maximum amount that may be appropriated annually for operating loans. This act authorizes the appropriation of "such sums as the Congress may from time to time determine to be necessary to enable the Secretary [of Agriculture] to carry out the purposes of this title (*74, Title 2, Sec. 23*)."

How the farm-ownership and operating-credit loan programs of the Farmers Home Administration affect the tenure status of disadvantaged farm people depends also on the income levels of the farm families assisted by these programs. For the most part, apparently, the farm-ownership and operating-credit loan programs are not designed to reach the farm people who constitute the low-income problem in its most difficult form.

FHA farm-ownership loans are designed mainly to help qualified farm families become established as owners of family-type farms. Under FHA regulations, a family-type farm is defined as "* * * a farm (1) that is of sufficient size and productivity to furnish income that will enable a farm family to have a reasonable standard of living, pay operating expenses * * *, pay their debts and have a reasonable reserve to meet unforeseen emergencies, (2) for which the management is furnished by the operator and his immediate family, and (3) for which the labor is furnished primarily by such operator and family except during seasonal peak-load periods (*69*)."

Similarly, FHA operating loans may be made only to "full-time operators of family-type farms" (*71*), except for the moderate program of operating loans to part-time farmers recently authorized as a part of the Rural Development Program (*70*). During the mid-1950's, the number of all FHA operating loans (including new loans and loans to borrowers already indebted to FHA) made each year to family-type farmers was around 80,000.[22] But probably less than half of these were to families who could be called low-income farmers. In a sample of all FHA operating-loan borrowers who repaid their loans from July 1954 through June 1955 and continued to farm, the average gross farm income of these operators was about $3,300 during the year before receipt of the FHA loan (*67, table 24*). By way of contrast, in 1954, the number of full-time farmers with a gross value of farm products sold of less than $2,500 was about 1,225,000 (*53, 1954, v. 2, p. 141*). Therefore, the number of low-income farm families who receive FHA operating credit is not large compared with the number of full-time farmers with low incomes.

The publicly sponsored credit programs now under the Farmers Home Administration appear to have helped the farm-tenure situation so far as their available resources permitted. However, several questions remain: Are a substantial number of the most disadvantaged farm families assisted by publicly sponsored farm-credit programs? Is credit the greatest and principal need of the low-income farmer? Or does the nature of his problem require a more comprehensive approach, such as the Rural Development Program? The function of the Farm Credit Administration is clearly to serve commercial family farms. Families assisted by the Farmers Home Administration are those unable to obtain credit from other sources at reasonable rates and terms. However, the limited published data

[22] Data from the files of the Farmers Home Administration.

available suggest that most of them are not from the most disadvantaged farm-tenure situations. The problems involved in carrying out a program of supervised agricultural credit for the lowest of the low-income farmers were beyond the scope of the study reported.

The activities of the Farmers Home Administration and of the banks and associations supervised by the Farm Credit Administration were helpful in bringing about the improvements in the tenure status of farmworkers that occurred during the last quarter-century. In normal times, these agencies are an additional source of agricultural credit and their improved lending practices probably influence other credit institutions that serve farmers. The cooperative Farm Credit System and the Farmers Home Administration have also been helpful in meeting farmers' credit needs during emergency periods. But probably it would be incorrect to attribute the larger part of the improvement in the farm-tenure situation since 1930 to the publicly sponsored farm-credit agencies.

TRANSPORTATION AND COMMUNICATION

Also helping to bring about improvements in farm tenure since the 1930's were the changes that occurred in transportation and communication for both rural and urban people. Although at first glance these matters might appear to be unrelated to farm tenure, changes in travel and communication have influenced the farm-tenure situation indirectly by facilitating migration of farm people into other employment.

Changes in transportation and communication available to farm people in recent decades have been many and far-reaching. All-weather roads and inexpensive automobiles have made travel quicker, cheaper, and more comfortable than before. The telephone, the radio, and television have greatly increased communication between persons within the farm community and especially between farm and urban people.

These improvements in transportation and communication have altered the attitudes, habits, and aspirations of farm people. Isolation no longer characterizes farm life; and farm people no longer think and act differently from city folk. Farm people's horizons have been so greatly extended that they think in terms of a larger world than formerly. Travel away from farm homes has become easier and more common for farmers, whether it is 30 or 300 miles; whether they take a trip several times a week or several times a year; and whether their purpose is to buy farm supplies, visit friends in town or city, do nonfarm work, or live and work in a distant city.

By facilitating the vocational migration of farm people into other employment, changes in transportation and communication have probably affected the farm-tenure situation in a desirable way. How greatly these improvements in communication and transportation have accelerated the vocational migration of farm people into other work cannot be estimated. Probably, however, the effects of these improvements were greater because these changes in travel and communication occurred shortly before World War II and the Korean war, which also altered the attitudes and widened the aspirations of farm people. Also adding to the impact of these changes in travel

and communication was the fact that they occurred just before the full-employment period of the forties and fifties, when nonfarm job opportunities were generally abundant.

WARTIME EXPERIENCES

Helping to bring about farm-tenure improvements after the early forties were also the experiences of farm people during World War II and the Korean war.

Wartime experiences changed the habits, attitudes, and aspirations of all farm people and enlarged their knowledge. This was true not only for those who served in the Armed Forces or took civilian jobs in defense plants but also for those who remained on the farm. These people acquired new knowledge; their horizons were extended; and their ambitions were stimulated. Many farm boys learned new vocational skills while serving in the Armed Forces.

After these experiences, those who remained in agriculture were quicker to adopt improved farming methods, and those who left farming were better able to find other work and to fit into city life. The consequences of wartime experience for farm-tenure status would be difficult to measure. But as knowledge, attitudes, and aspirations have much to do with the course of history, the effect of the wartime experiences of farm people on their tenure situation is doubtless more important than it might appear to be from the brief discussion of this influence.

LONG PERIOD OF FULL EMPLOYMENT

Also helping to bring about the dramatic improvements in farm tenure that began slowly after 1930 and proceeded rapidly during the 1940's and 1950's was the favorable economic situation that followed the beginning of World War II. The period since 1941 has been unusually favorable, because of both the degree and the duration of the prosperity.

Prosperity Encourages Off-Farm Migration

The decade and a half of business prosperity and full employment since the early forties helped the farm-tenure situation by making possible the migration of large numbers of farm people into other work. Full employment provided plentiful job opportunities for farm people who wished to take up nonfarm employment.

Since 1940, the rates of net off-farm migration have been greater than those of the two previous decades whether they are in actual numbers of net migrants per year from the farm population (as shown on p. 46) or in numbers of such migrants per year compared with the size of the farm population. During the fairly prosperous twenties, net off-farm migration per year averaged about 2 percent of the farm population. In the depressed 1930's, annual net off-farm migration amounted to only a little more than 1 percent of the farm population. But during the prosperous decade of the 1940's, net off-farm migration per year averaged about 3½ percent of the farm population, and during the generally favorable period of April 1, 1950, through April 1, 1957, annual net off-farm migration consti-

tuted almost 4 percent of the farm population.[25] Thus during the prosperous years after 1941, net off-farm migration relative to the size of the farm population was about twice as rapid as during the reasonably prosperous twenties and 3 times as rapid as during the depressed thirties.

There can be little doubt that these faster relative rates of off-farm migration since 1940 resulted largely from the long period of business prosperity and full employment and perhaps to a lesser degree from changes in transportation and communication that made farm people more aware of and better able to travel into the world beyond their farming communities. These faster rates of off-farm migration have doubtless tended to improve the farm-tenure situation by reducing the pressure of population on agriculture.

Prosperity Encourages Capital Accumulation

The general business prosperity during and since World War II also aided those farm people who remained in agriculture. Compared with farmers' other experiences during this century, the period has been one of generally favorable and stable farm-product prices and farm incomes, even though during most of these years farmers experienced a cost-price squeeze. As the incomes of persons in all farm-tenure categories were generally more favorable, the long period of prosperity since the early forties has made it easier for farm families to accumulate the capital so necessary to their tenure progress.

A recent Virginia study illustrates how a farmer's ability to accumulate capital depends on general business conditions (*27, pp. 24–44*). The authors developed a measure of the difficulty operators of commercial farms had in increasing their net worth during periods in which economic conditions differed. They estimated the income per farm available for accumulation of capital that could be used to pay off indebtedness or pay for new land, livestock, or equipment on commercial farms in two Virginia counties during each of the years from 1923 through 1951. Although the study referred to two particular counties, its findings suggest what in general is typical of commercial agriculture in this respect. The amount available annually for capital accumulation on a typical farm in the two Virginia counties was estimated as the amount by which average income per farm exceeded the sum of production expenses per farm and needs for family living.

The average income per farm available annually for capital accumulation in the two Virginia counties was estimated as follows, expressed in 1940 dollars:

Period	*Dollars per farm per year*
1923–29	224
1930–40	112
1941–51	692

Thus, during the prosperous years from 1941 through 1951, the estimated income per farm available annually for capital accumulation averaged 3 times that for the fairly prosperous years from 1923

[25] These figures indicate only broadly the net vocational migration out of agriculture, as they relate to a person's place of residence rather than to his occupation. The figures were derived from data in two publications (*16, p. 9; 18, p. 6*).

through 1929 and 6 times that for the depressed years from 1930 through 1940. (All comparisons are in deflated 1940 dollars of constant purchasing power.) It is apparent from these data that the years during and after World War II were especially favorable so far as accumulation of capital by farm families was concerned.

The improvement in the tenure status of farmworkers since 1940 therefore can be attributed largely to the period of business prosperity during and following World War II. Full employment increased off-farm migration and reduced population pressure within agriculture. Business conditions were favorable for accumulation of the capital necessary for the tenure progress of the families who continued to farm. Several other considerations that helped to bring about appreciable farm-tenure improvements since 1940 were probably less important. Changes in travel and communication, as well as the wartime experiences of farm people, probably tended to increase off-farm migration by broadening the interests of farm people and making it easier for them to travel. The publicly sponsored farm-credit institutions that were evolved during the 1920's and the 1930's increased the amount of credit available to farm families and improved the terms on which it was available.

FARM TENURE IN THE FUTURE

Description of past farm-tenure trends and discussion of their causes also suggest several questions concerning the future. What long-run farm-tenure developments may be expected in the years ahead? How do these developments affect our traditional ideas on farm tenure? Should our farm-tenure goals be restated, to better adapt them to the present and the future?

LONG-RUN TRENDS

Two long-run considerations may be expected to influence farm-tenure developments during the next few decades. The first is whether agriculture will continue to be under pressure to maintain a steady net migration of substantial numbers of farm people into other work, largely because of improvements in the technology of farm production. The second is whether general business conditions will be relatively stable and prosperous. Other considerations that might become significant for farm tenure in the years ahead include: the importation of foreign workers for seasonal farm labor; contract farming and vertical integration; and nonfarm employment for part-time farmers. Should these practices become more prevalent, they might change the farm-tenure situation appreciably, especially in some regions.

Off-Farm Migration Likely to Continue

If during the next few decades the necessity of maintaining a net shift of farm persons into nonfarm employment continues, this will tend to make the farm-tenure situation more difficult than otherwise. For the most part, the continuation or cessation of net off-farm migration will depend on two other considerations: (1) Whether or not technological improvements in farm production continue to out-

run the growth in total population; and (2) whether or not farm families continue to have numbers of children that more than replace their parents. Available evidence suggests that during the foreseeable future, the existing pattern of net migration of farm people into nonfarm employment will be likely to continue.

If net reproduction rates for rural-farm people continue at anything like their present high level during the next two decades, considerable vocational migration of human resources out of agriculture will continue to be necessary—even if improvements in agricultural production only keep pace with the growth in the total population. For the United States as a whole during the decade 1950–60, the replacement ratio of rural-farm men aged 20 to 64 years is 168 entrants per 100 departures through death or retirement (*12*). This means that about 40 percent of the young men reared on farms who reach working age during the present decade would need to find employment outside agriculture, even if the number of employment opportunities in farming were not to decrease. Although the future net reproduction rate of the rural-farm population is not known, the slowness with which this rate has changed in the past makes it unlikely that during the next few decades the rate will drop to levels at which farm children just replace their parents' numbers.

The Joint Economic Committee of the 85th Congress, while considering "policy for commercial agriculture" in 1957, examined the question of how much expansion of agricultural production may be expected in the immediate future. The several university and governmental economists testifying on this question expressed the belief that the application of presently available technology will continue to expand agricultural production to meet the needs of our growing population and that the number of commercial farms and the size of the agricultural work force probably will continue to decline (*30, 11, 8*). Thus apart from the high net reproduction rate of the farm population, agriculture will probably continue to be under pressure to maintain net off-farm migration during the next decade or two, because the application of farm technology that is already available may reduce further the number of workers needed in agriculture.

During the next decade or two, it is likely, also, that farm people will find vocational migration out of agriculture easier in the future than it was before World War II, assuming that no deep and protracted economic depressions occur. The continuing improvement in travel and communication and their availability to larger numbers of farm people will make it easier for some farm people to move away from farm communities to obtain nonfarm jobs. Further decentralization of industry will enable more farm people to obtain nonfarm work while continuing to live on farms. Finally, the farm population is shrinking in absolute numbers while the nonfarm economy is expanding in absolute size. As time passes, therefore, it becomes progressively easier for the nonfarm economy and nonfarm communities to absorb the vocational migrants from the farm population.

Thus for at least the next decade or two, it appears that there will be some net migration of farm people into other employment and that the population pressure within agriculture will cause the farm-tenure situation to be somewhat less favorable than it would otherwise be. But vocational mobility is probably becoming easier for

farm people, and agriculture's need to maintain net vocational outmigration may result in somewhat less farm-tenure difficulty than formerly.

Stable and Prosperous Business Conditions Important

The second major consideration that will influence future farm-tenure developments is whether or not general business conditions will be relatively stable and prosperous. Serious business depressions harm agriculture in general and worsen the farm-tenure situation in particular.

Probably, minor fluctuations in general business activity will never be eliminated entirely. As our understanding of the causes of business fluctuations improves, however, we may hope that major depressions will either be eliminated entirely by appropriate private and governmental action or reduced to the proportions of relatively moderate and brief readjustments. Several important new stabilizers have been built into the economy since the 1930's—unemployment insurance, social security, price supports for certain farm products, and insurance on bank deposits. The larger expenditures by government for public services and national defense are also significant components of demand that need not decrease during a depression.

Another change is that government now takes responsibility for preventing or mitigating business depressions. The Federal Reserve System is charged with responsibility for credit policy; and the Congress and the President are jointly responsible for adjusting tax rates and increasing expenditures for public works when business activity slackens. Finally, the business community now tends to be reassured rather than disturbed by government action to combat downturns in business. At such times, some individual firms also take steps that tend to improve general economic conditions.

Thus it seems realistic to expect that during the next few decades the farm-tenure situation will not be worsened by serious and prolonged business depressions.

Foreign Workers for Seasonal Farm Labor

A third consideration—the importation of foreign nationals for seasonal farm labor—could become a significant farm-tenure development in the future, although in the 1950's, it is relatively unimportant except in a few local areas.

The legal entrance of foreign nationals for seasonal hired agricultural labor grew in importance during and following World War II. Since the 82d Congress enacted Public Law 78 in 1951, the Federal Government has facilitated the importation of farmworkers from foreign countries. During each of the years 1956 and 1957, about 450,000 foreign nationals—chiefly Mexicans, with small numbers of Bahamians, British West Indians, Japanese, Filipinos, and Canadians—were brought into the United States to do seasonal farmwork under the terms of Migrant Labor Agreements between the Government of the United States and the several foreign countries. In 1956 and 1957 at the peak of the labor season (the first half of October), the number of foreign nationals doing seasonal farmwork in this country was around 275,000. During 1957, foreign farmworkers

were employed in 40 States. Texas, California, Arkansas, New Mexico, Arizona, and Florida employed the largest numbers of these workers (*52*).

The consequences of importing annually large numbers of foreign seasonal farmworkers are outside the scope of the study reported here. Such a practice might have important effects on the tenure status of farm people, however.

Contract Farming and Vertical Integration

A fourth development—contract farming and vertical integration—could also have important consequences for farm tenure. For some crops, these arrangements between farmers and others have been long established and have changed little through the years. But for other crops and for some livestock, contract farming and vertical integration appear to be spreading rapidly (*58*).

Production of a particular commodity is said to be vertically integrated when the farmer shares some of his management decisions and risks in production and marketing with one or more related businesses. These businesses may include suppliers of inputs commonly purchased by farmers, processors of farm products, or wholesale and retail distributors of items made from farm products.

Vertical integration includes a range of farmer-businessman arrangements. It extends from agreements between farmers and businesses that are only slightly closer than open-market relationships to complete ownership, control, and operation of the farm by a business firm. Contract farming lies between these limits. In some situations, only one of a farmer's several enterprises and in others, the entire output of his farm, may be integrated. A similar range of possibilities applies to the sharing of management. In the mildest form of vertical integration, the farmer and the businessman may discuss and arrive jointly at certain decisions traditionally made by the farmer alone. At the other extreme of contract farming, the farmer may turn some of these decisions over in entirety to the businessman. Finally, at the extreme of vertical integration, the business firm itself owns and operates the entire farm.

It is not clear how far contract farming and vertical integration will spread and in what ways they will affect the farm-tenure situation. Vertical integration has grown out of technological changes. These changes have taken place in farm production, in the manufacture and distribution of inputs purchased by farmers, in the processing of farm products, and in the retailing of food and other goods made from farm products. As it is not likely that the pace of these technological innovations will slacken, further expansion of contract farming and vertical integration may occur. But it would be a mistake to assume that the direction, rate, and character of the change to vertical integration cannot be influenced. If the development of vertical integration in agriculture is guided properly, in the long run it will probably benefit not only consumers and businesses that deal with farmers but also farm people in general, without impairing their farm-tenure status.

TENURE TRADITIONS REEXAMINED

The rapid changes taking place within and beyond the agricultural community suggest that certain of our farm-tenure traditions might well be reexamined. One such tradition is the agricultural tenure ladder. Another is the view that "high" farm-tenure status is almost synonymous with material well-being and that raising the farm-tenure status of a family necessarily improves its material well-being.

The "Agricultural Ladder"

The traditional idea of the agricultural ladder has been that farm boys first learn the rudiments of farming on their parents' farms and then through hard work, thrift, resourcefulness, and perseverance climb successively from hired-laborer status to tenancy to mortgaged ownership and finally to debt-free ownership. As an alternative to the traditional self-help ladder, several writers have indicated that inheritance and family assistance make up the so-called "new" agricultural ladder (*34, 5, 28*). With the ladder of family help, the farm as a going enterprise is kept in the family and as such is transferred from parents to son and daughter-in-law or son-in-law and daughter through the use of appropriate family agreements and transfer arrangements. Each of these ideas of the agricultural ladder—the self-help view and the family-help view—may be used alternatively in two different ways. Each may be used as an analytical model to describe how some individuals attain farm ownership, or as a popular ideal to indicate a course of action that should be followed.

As analytical models, both the old and the new agricultural ladders are useful in describing what has happened. Data from the 1918 Spillman study of farm owners in four North Central States and from North Central farm owners in the 1946 USDA farmland-ownership study indicate that only about a fifth of the North Central farm owner-operators used all the lower rungs of the agricultural ladder—unpaid home farm experience, work as a hired laborer, and renting. These data indicate also that the new agricultural ladder is not new in practice, although the term itself is of recent origin. The 1919 Spillman study revealed that even before World War I, the proportion of owner-operators who had gone directly from working on their parents' farms to ownership was larger than the proportion who had used all the successive rungs of the traditional ladder. Comparison of data in the 1918 Spillman study with data in the 1946 USDA survey also suggests that perhaps the proportion of farm operators who climb all the rungs of the old agricultural ladder is decreasing slightly; that tenancy is probably becoming a less important rung of the ladder; and that the number of operators who through inheritance and family assistance are boosted directly from home-farm experience to owner-operatorship may be increasing slightly (*40, 5*).

As popular ideals or patterns for action, the two agricultural ladders can be misleading, if they are considered without adequate understanding of the difficulties that in either instance may be associated with achieving the farm family's goal of ownership. As has been pointed out, climbing the agricultural ladder of self-help is difficult and uncertain, not only because of personal vicissitudes but

also because of high capital requirements in farming and because swings in farm-product prices squeeze farm incomes periodically (*23, p. 548, 563–568; 72, p. 4; 36; 44; 5; 28; 32*).

The new agricultural ladder of family help involves problems that are not apparent at first glance. During the period in which a family farm is in transition from control by the older generation to control by the younger and in which the labor of both families is employed on the farm, one problem is how to enlarge the farm unit temporarily to permit efficient utilization of the larger amount of labor and to provide adequate incomes for both families. Another problem is how parents and children can know whether they are prepared by experience and temperament to enter into these close operating arrangements. A third problem is how to use the new ladder in a way that will make the younger couple feel that they are climbing rapidly and steadily and the parents feel useful in their last productive years and secure in their old age (*28*). A final problem is whether the ladder of family assistance makes more remote the goal of owner-operatorship for the children of tenants, croppers, and hired farm laborers.

As ideal patterns of action with relevance for the present and the future, however, both ladders need further modification to permit recognition of the pervasive requirement for net vocational off-farm migration. Statistics as to the percentage of farm owner-operators who achieved the ownership goal by either ladder, or by a combination of both, can be misleading. Figures of this kind obscure the fact that many of the farm youths who tried but failed to achieve the goal of farm ownership, or who may have wanted to try for farm ownership, could not possibly have succeeded. Long before the closing of the frontier and the decline in number of farms, employment opportunities in agriculture were insufficient to absorb both the European immigrants who settled on our farms and all those born and reared on them. A situation of this kind has existed at least since 1860. It has been estimated that in 1900 at least 31 million people with farm backgrounds (as of 1860) were residing in villages, towns, and cities (*39*).

The popular tradition of climbing the agricultural ladder, either by self-help or family help, therefore requires modification if it is to have relevance for our time. As an ideal for farm people, the ladder tradition should call attention to an aspect that has been largely ignored. It should promise a reasonable prospect of achieving farm owner-operatorship for young farm people of at least average ability and diligence who choose to remain in agriculture. In addition, it should recognize and perhaps emphasize that there is insufficient economic opportunity in agriculture for *all* the children of farm parents and that, under present conditions, slightly more than 40 percent of the youth reared on farms need to find jobs outside agriculture.

Tenure Status and Material Welfare

It has been part of our rural tradition to assume that high farm-tenure status goes with general well-being and that low tenure status implies disadvantage. Individual farmers are often advised to attain the status of owner-operators as soon as they can do so. Also, government is called upon for policies that will increase the number

of owner-operators. But these ideas are oversimplifications. When an operator with insufficient net worth becomes a mortgaged owner of a small and poorly equipped farm rather than continue to rent a farm of adequate size and farm it with efficient equipment, he thereby reduces his family's income more than is generally realized. Material well-being is an important part of general well-being. The large net worth currently needed to own and operate an efficient family farm and the difficulty of making a farm pay for itself during each generation call for a reexamination of the tenure goal of farm ownership for all farm families and, if necessary, a restatement of the goal with the qualifications now needed.

In the past, there has been only infrequent recognition that tenancy in itself is not necessarily bad (*32, p. 83; 1, pp. 385–404*). The popular preference for owner-operatorship over any form of tenancy results in economic consequences that are far from obvious when a farm family's net worth is small relative to the total value of an efficiently sized and equipped farm. Such a family can get access to a farm through tenancy or heavily mortgaged ownership. If the family rents a farm, all of its net worth is available for operating capital and for the purchase of machinery, equipment, and livestock. If the family buys land and buildings, its net worth must be spread between the downpayment on farm real estate and the requirements for operating capital, implements, equipment, and livestock.

With existing credit practices, a farmer who has a relatively small net worth can *rent* a larger volume of farm-real-estate resources than he can obtain by *borrowing* for their purchase. Furthermore, the smaller the farmer's net worth, the greater is the difference between the amount of capital he can rent and the amount he can borrow. Therefore, in choosing heavily mortgaged ownership rather than tenancy, a farm family with limited financial resources must be satisfied with operating a smaller or less productive farm and with earning smaller returns on the family's labor, management, and equity than would be the case if it rented a farm. Many farm families buy ownership status at the price of lower monetary returns and lower levels of living (*36; 37, pp. 126–149; 41; 23, pp. 552–554*).

Nor is the popular view that the material welfare of farm families corresponds to their tenure status confirmed by available empirical evidence. The farm-operator family level-of-living index published by the Department of Agriculture (*36*) provides a relative measure of the material well-being of farm-operator families that may be compared with information as to their tenure status. When the upper 10 States in the ranking according to the Hagood level-of-living index of farm-operator families for 1950 are compared with the 10 States having the highest proportion of owners among the adult male agricultural work force in that year, only one State is common to both lists. And when the lower 10 States according to the Hagood index are compared with the 10 States having the lowest percentage of owners among adult male agricultural workers, 5 States appear in both groups (table 15). In evaluating this imperfect correspondence, however, it should be noted that the level-of-living index deals only with farm-operator families, that it does not reflect the living levels of hired farm-laborer families; and that the

TABLE 15. *Ranking of States by proportion of male agricultural workers aged 20 and over who are owner-operators, and by level-of-living index of farm-operator families, United States, 1950*

10 highest States [1]			10 lowest States [2]		
Ranking of States	By proportion of owner-operators [3]	By level-of-living index [4]	Ranking of States	By proportion of owner-operators [3]	By level-of-living index [4]
Rank	*State*	*State*	*Rank*	*State*	*State*
1	Michigan	Iowa.	39	Nevada	West Virginia.
2	Utah	Connecticut.	40	Texas	Kentucky.
3	Indiana	New Jersey.	41	*Alabama*	*Louisiana.*
4	Missouri	California.	42	*Georgia*	*Georgia.*
5	Ohio	Rhode Island.	43	*Louisiana*	North Carolina.
6	Wisconsin	*New York.*	44	California	Tennessee.
7	Minnesota	Delaware.	45	*Mississippi*	*South Carolina.*
8	Maine	Massachusetts.	46	*South Carolina*	Arkansas.
9	North Dakota	Nebraska.	47	Florida	*Alabama.*
10	*New York*	Illinois.	48	Arizona	*Mississippi.*

[1] Italics indicate that State is among 10 highest in both groups.
[2] Italics indicate that State is among 10 lowest in both groups.
[3] See table 18.
[4] Farm-Operator Family Level-of-Living Indexes for Counties of the United States (*36, 1930–40, 1945, and 1950*).

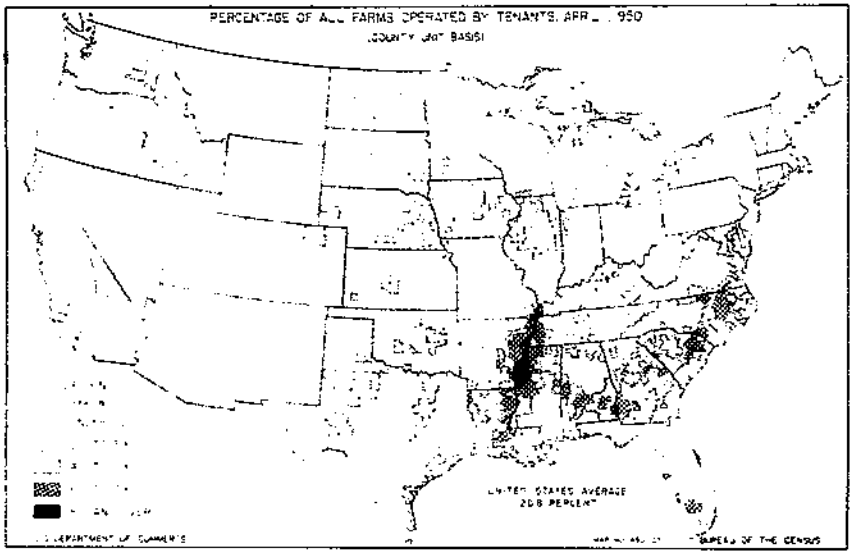

Figure 24

Hagood index is designed to be calculated from available published data[21] and therefore cannot be more sensitive than this limitation permits.

A second empirical check on the view that the material welfare of farm families is synonymous with their farm-tenure status involves comparison of the geographic distribution of (1) the percentage of farms operated by tenants, (2) the median incomes of farm families, and (3) the indexes of farm-operator family levels-of-living (figs. 24, 25, and 26). Two rather distinct regional patterns of association between tenancy and material welfare are suggested by these data. Within the deep South, higher rates of tenancy tend to be associated with lower median incomes and living levels for rural families. Outside the deep South, however, the Corn Belt stands out as the largest area of both high tenancy and high farm-family incomes and living levels. In general, no consistent pattern is evident in other regions. For example, very little tenancy is found in the upper Lake States and most of New England, but family incomes and living levels are low in the former and high in the latter.

Suggestions of the same difference between the South and the rest of the country also emerge in data from a 1953 special cooperative study which gives further empirical evidence as to the degree of association between the material welfare and tenure status of farm people. Examination of the tenure status of low-income farm-operator families whose money incomes from all sources were less than $1,000 per year in 1950 reveals that a majority were owners (including a small number of managers), supposedly the "highest" tenure category. For the North and West considered together, 83 percent

[21] The Hagood index of the levels of living of farm-operator families is based on four quantitative criteria: The percentages of farms with (1) electricity, (2) telephone, (3) automobiles, and (4) the average value of products traded or sold.

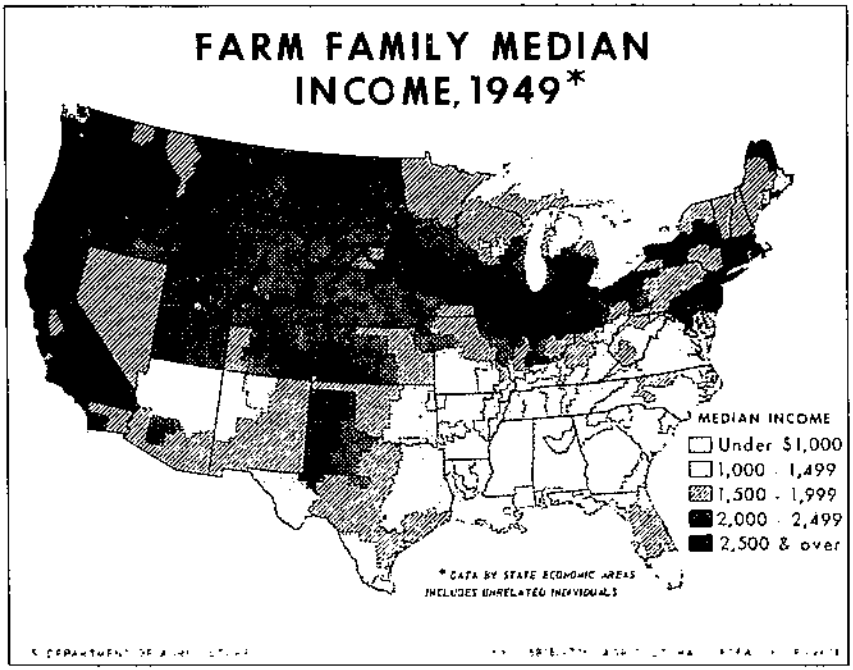

Figure 25

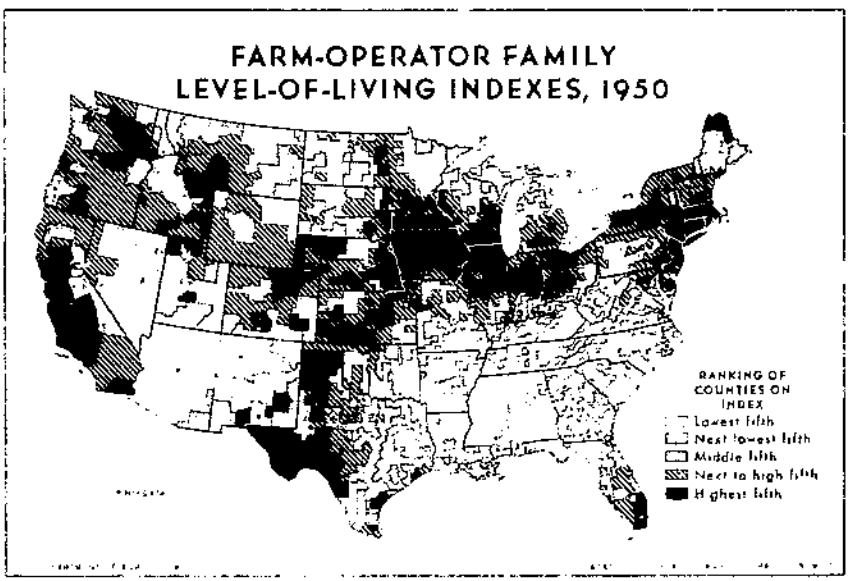

Figure 26

of these low-income farm-operator families were owners in 1950; in the South, 55 percent were owners.[25]

The distribution of the 1950 money incomes (from all sources) of families in each tenure category is shown in table 16. In the North and West, the proportion of owners (including managers) with net money incomes of less than $1,000 in 1950 was about a sixth while only about an eighth of the tenants had incomes this low. But the percentage of farm owner-operator families with money incomes of $4,000 and over in 1950 was somewhat higher than the percentage of tenants with these incomes. In the South, however, only about a third of the farm owner-operator families had money incomes of less than $1,000 in 1950, while almost half of the tenant families (excluding croppers) and almost two-thirds of the sharecropper families had incomes below $1,000. The percentage of southern owner-operator farm families with incomes of $4,000 and over in 1950 was also considerably larger than the percentages of tenant and sharecropper families with such incomes. Unfortunately, similar information on the incomes of farm-laborer families was not available for comparison.

TABLE 16. *Estimated percentage distribution of farm families by tenure and annual income, Northern and Western States combined, and Southern States*

Family cash income from all sources	North and West [1]		South [3]		
	Owners [2]	Tenants	Owners [2]	Tenants	Sharecroppers
	Percent	*Percent*	*Percent*	*Percent*	*Percent*
Under $1,000	16.5	12.9	34.5	45.6	64.7
$1,000–$1,999	21.8	24.9	26.8	31.7	23.6
$2,000–$2,999	20.3	24.6	16.5	12.4	6.1
$3,000–$3,999	15.8	16.1	9.9	3.7	2.7
$4,000 and over	25.7	21.4	12.3	6.7	2.8
Total [4]	100.0	100.0	100.0	100.0	100.0

[1] New England, Middle Atlantic, East North Central, West North Central, Mountain, and Pacific.
[2] Includes full owners, part owners, and managers.
[3] South Atlantic, East South Central, and West South Central.
[4] Because of rounding, figures do not necessarily add to 100. Derived from Farms and Farm People, A Special Cooperative Study (57).

Thus there is little evidence that tenure status is a particularly reliable indicator of the relative material well-being of farm families or of agricultural communities. Aside from the South, empirical evidence has not shown that tenants' living levels are below those of owners, although both owner-operators and tenants probably have higher money incomes and living levels than hired farmworkers. Within the South, however, high tenure status to some extent tends to be associated with material well-being and low tenure status with low living levels. But it should not be inferred that even in the

[25] Calculated from Farms and Farm People—Population, Income, and Housing Characteristics by Economic Class of Farm (57), pp. 39–84.

South this crude correspondence between tenure status and material well-being is caused necessarily and mainly by farm-tenure status. It is likely that farm-tenure status and level of living are both elements in a complex interrelationship of these and such factors as the productivity of natural resources available for agricultural use, the pressure of population on agricultural land, the accumulated stock of agricultural capital, the technological knowledge possessed by farm people, and the individual's natural ability, social status, education, and inherited wealth.

To have relevance as an ideal for both present and future, the popular preference for farm ownership over tenancy should therefore be restated. It should be recognized that the net-worth requirements for ownership and operation of an efficient family farm are greater than the net worth a tenant needs to operate a comparable farm unit. It should be made clear that when an operator buys a small farm of low productivity because his net worth is as yet too small to permit him to buy an adequate unit, the farm income available for family living and capital accumulation will be considerably less than he could have earned as a tenant operating a better farm unit. The further difficulty of paying off the mortgage and accumulating additional operating capital should be recognized also.

Furthermore, programs to improve the tenure status of farm people must be carefully thought through and properly designed if they are to produce the expected results. If the complex interrelations between tenure and other factors were ignored in setting up a program, it might fail to produce the desired tenure changes. An inadequate farm-tenure program might bring about tenure changes that would appear to be desirable but would not actually improve the material or general well-being of the families involved. Or even though it might produce some of the tenure changes desired, an improperly designed farm-tenure program could produce undesirable side effects within the agricultural community.

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APPENDIX

METHODOLOGY

The data in the tables showing the percentages of owners, tenants, and farm laborers among farmworkers 20 years old and over were developed by combining data from the censuses of agriculture and population (*53, 54*). The procedure was the same as that followed in the 1948 report by Taylor, Ducoff, and Hagood (*44*), which was based on the method used by John D. Black and R. H. Allen (*9*).

Past censuses of agriculture and population do not provide statistics that afford a direct measure of trends in the tenure status of farmworkers in the United States, if tenure status is interpreted broadly to include the category of farm laborers as well as owner-operators and tenant-operators. Other difficulties in measuring agricultural employment arise from the seasonality of farm labor requirements and the varying degree of participation in farmwork by family members (*18*). The extent of the coverage of unpaid family workers in past censuses has varied greatly. To avoid most of the noncomparabilities so introduced and to keep the analysis focused on the group that is usually associated with the subject of farm tenure, the estimates were restricted to male workers 20 years of age and over.

The general procedure was as follows: The number of males 20 years old and over reported as employed or as gainfully occupied in agriculture by the population census were divided into two groups: (1) Farmers and farm managers, (2) farm laborers (paid and unpaid) and farm foremen. The former group is not identical with the number of farm operators reported in the census of agriculture. It was assumed, however, that the correspondence was close enough so that the percentage distribution of male farm operators 20 years of age and older between owners (including managers) and tenants could be used to estimate the tenure distribution of farmers and farm managers from the population census.

If the 1880 and later censuses had used the same definitions, had been taken at the same time of year, and had made corresponding tabulations for persons gainfully occupied in agriculture and for farm operators by age and sex, development of the estimates would have been a simple and straightforward matter. But for each census year, indirect estimates had to be developed by using the most nearly applicable classifications for which data were available. Only a few such approximations were required for the later censuses; more were used for the earlier years. An example of an indirectly estimated item for 1940 illustrates the general principles followed. The age classification of farm operators in the census of agriculture has as its lowest class "under 25 years," whereas we wished to obtain an age break at 20 years. From the 1940 Census of Population, we obtained the percentage that males aged 20 to 24 made up of all males under 25 years of age who were farmers or farm managers. This percentage was applied to the 1940 Census of Agriculture number of farm operators under 25 years of age to obtain an estimate of the group aged 20 to 24. The latter estimate was then added to the percentage of operators aged 25 and over (after distributing those with ages unknown) to obtain the age estimate of farm operators 20 years old and over.

The only differences between the methods used here and those used by Black and Allen were in obtaining certain indirect estimates for some of the earlier years. If an indirect estimate could not be made from census data for a given year, we used the nearest census for which data were available as a basis. Black and Allen used a more elaborate method of projecting backward graphically from two or more later censuses to the earlier date. Actually, the results for 1930 from the two methods are identical within limits of rounding for the eight States for which Black and Allen published estimates (appendix table 23). (Kansas represents a minor exception.) Differences are somewhat greater for the 1880 estimates but in no instance are they large enough to indicate any significantly different trend.

No adjustments were made for lack of comparability of the various censuses with respect to time of year when the census was taken, difference in definition between gainfully occupied in agriculture (1930 and previous censuses), and the sum of the employed in agriculture plus those unemployed who reported having worked at an agricultural occupation last (1940 and 1950), and degree of completeness of enumeration of various censuses. It was believed that such noncomparability as may have been introduced by these factors would affect more seriously the comparison of aggregates in each tenure class than the percentage composition of agricultural workers by major tenure classes. Hence, only the percentage composition is presented in the accompanying tables.

TABLES

TABLE 17.—*Percentage distribution of farms, and of land operated, by tenure of operator, United States and regions, 1940, 1945, and 1950*

PERCENTAGE DISTRIBUTION OF FARMS

Tenure of operator	Northeast			North Central			South			West			United States		
	1940	1945	1950	1940	1945	1950	1940	1945	1950	1940	1945	1950	1940	1945	1950
	Per-cent	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*	*Per-cent*
Owners and managers	81	82	81	51	54	56	45	53	54	64	69	69	51	57	58
Part owners	7	9	12	14	17	20	7	7	12	15	17	18	10	11	15
Tenants	13	9	7	35	29	24	30	25	21	21	15	13	30	24	21
Sharecroppers	------	------	------	------	------	------	18	16	13	------	------	------	9	8	6
Total [1]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

PERCENTAGE DISTRIBUTION OF LAND

Owners and managers	76	76	73	35	36	38	49	55	52	38	42	42	42	45	45
Part owners	10	15	20	28	34	37	18	19	28	48	49	49	28	33	36
Tenants	14	9	7	38	30	25	27	21	19	14	9	8	27	20	17
Sharecroppers	------	------	------	------	------	------	6	5	4	------	------	------	2	2	1
Total [1]	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

[1] Because of rounding, figures do not necessarily add to 100.

U.S. Census of Agriculture, 1950 (*53*).

TABLE 18.—*Full and part owners and managers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Maine	75.7	71.6	67.6	62.4	59.5	63.8
New Hampshire	67.6	64.1	61.6	56.1	55.7	62.6
Vermont	62.4	58.4	58.2	54.7	52.9	60.8
Massachusetts	63.3	49.5	47.4	41.9	44.0	53.9
Rhode Island	54.1	43.5	42.4	34.0	41.3	52.3
Connecticut	61.9	50.6	49.6	43.3	46.9	54.5
New England	66.6	58.8	56.9	50.7	51.4	58.7
New York	60.1	49.5	51.2	52.8	52.5	63.5
New Jersey	50.4	39.6	41.0	38.5	41.6	51.4
Pennsylvania	59.4	52.8	54.5	55.1	53.7	63.3
Middle Atlantic	59.1	50.0	51.7	52.2	51.9	62.0
Ohio	60.9	53.6	51.2	51.7	53.7	66.4
Indiana	57.9	53.3	50.2	50.9	54.2	66.9
Illinois	52.3	42.4	39.1	37.5	40.2	51.1
Michigan	70.3	63.4	63.1	60.3	60.1	74.6
Wisconsin	72.6	64.0	61.6	56.7	53.3	65.5
East North Central	60.9	54.0	52.1	50.5	51.7	63.7
Minnesota	74.5	60.6	52.4	46.8	47.4	64.1
Iowa	61.8	48.9	42.2	37.5	37.9	50.9
Missouri	57.7	53.6	53.5	48.8	48.4	66.6
North Dakota [2]	83.8	68.6	55.6	43.4	39.7	63.6
South Dakota [2]		61.9	48.1	39.8	36.4	57.2
Nebraska	71.6	50.3	43.2	38.8	36.5	51.5
Kansas	70.2	51.0	46.9	44.7	44.3	59.9
West North Central	65.1	53.9	48.8	43.4	42.6	59.2
Delaware	36.1	31.1	39.4	39.9	39.9	51.4
Maryland	36.3	37.2	39.8	39.5	38.4	49.2
Virginia	44.4	47.2	51.4	47.8	48.0	58.1
West Virginia	59.7	57.7	61.8	54.8	52.9	62.1
North Carolina	45.5	43.8	44.8	38.3	41.3	47.9
South Carolina	30.5	27.8	27.8	25.8	29.3	40.0
Georgia	34.2	28.8	26.1	23.7	26.8	43.2
Florida	45.3	54.6	43.8	37.1	33.6	39.9
South Atlantic	41.0	39.5	39.1	35.8	37.2	47.5
Kentucky	50.7	49.8	51.7	49.2	50.5	62.9
Tennessee	48.1	44.5	45.8	41.6	45.1	57.6
Alabama	37.6	32.3	34.8	27.8	30.6	47.4
Mississippi	37.0	29.6	29.5	24.1	27.9	40.1
East South Central	44.0	39.5	40.8	35.3	38.0	51.9
Arkansas	51.3	43.1	39.7	30.0	34.2	49.1
Louisiana	33.3	26.8	29.6	24.5	27.6	43.2
Oklahoma [3]		46.8	38.3	29.0	34.2	56.7
Texas	48.8	38.1	34.3	28.5	32.7	47.5
West South Central	46.2	37.9	35.5	28.3	32.4	48.7

See footnotes at end of table.

TABLE 18.—*Full and part owners and managers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]—Continued

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Montana	77. 8	64. 4	68. 1	49. 6	47. 2	61. 8
Idaho	84. 1	70. 9	59. 4	50. 7	50. 2	62. 3
Wyoming	74. 0	72. 9	59. 8	46. 3	42. 7	52. 8
Colorado	74. 1	55. 9	52. 7	41. 1	39. 8	54. 9
New Mexico	70. 8	69. 9	53. 3	46. 5	50. 0	54. 9
Arizona	74. 1	75. 6	41. 2	37. 1	41. 3	37. 9
Utah	79. 1	71. 6	59. 7	59. 2	63. 1	70. 3
Nevada	67. 0	47. 9	36. 9	39. 2	42. 1	47. 9
Mountain	74. 9	66. 1	57. 0	46. 7	46. 8	56. 8
Washington	74. 7	62. 1	56. 7	54. 4	52. 0	62. 6
Oregon	69. 6	61. 2	56. 5	54. 5	52. 7	63. 4
California	58. 0	43. 1	40. 5	34. 8	30. 4	40. 1
Pacific	62. 5	50. 9	47. 1	41. 8	38. 3	47. 9

[1] See Methodology, p. 80.
[2] Includes Dakota territory.
[3] Excludes Indian territory in Oklahoma.

TABLE 19.—*Full owners and managers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1920–50* [1]

State and geographic division	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*
Maine	65. 8	60. 3	57. 3	58. 8
New Hampshire	59. 1	53. 0	53. 2	55. 6
Vermont	55. 5	51. 4	48. 9	52. 0
Massachusetts	44. 9	38. 8	41. 6	47. 6
Rhode Island	39. 0	30. 7	37. 1	43. 2
Connecticut	46. 5	39. 8	43. 3	45. 7
New England	54. 4	47. 8	48. 5	51. 6
New York	47. 1	48. 3	46. 9	53. 0
New Jersey	39. 0	36. 3	37. 9	43. 9
Pennsylvania	51. 5	52. 1	50. 5	55. 8
Middle Atlantic	48. 2	48. 6	47. 5	53. 1
Ohio	45. 3	44. 2	47. 2	54. 8
Indiana	41. 4	39. 7	44. 6	52. 5
Illinois	30. 6	26. 8	29. 3	34. 9
Michigan	55. 5	50. 7	51. 8	60. 0
Wisconsin	57. 7	51. 3	47. 3	55. 7
East North Central	45. 0	41. 6	43. 4	50. 4

See footnote at end of table.

TABLE 19.—*Full owners and managers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1920–50* [1]—Continued

State and geographic division	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*
Minnesota	44.7	36.3	37.1	48.4
Iowa	34.4	28.9	30.3	38.2
Missouri	44.6	37.9	39.7	53.2
North Dakota	33.6	20.8	18.4	31.1
South Dakota	27.7	19.7	16.4	25.6
Nebraska	31.6	25.1	22.8	30.0
Kansas	31.9	27.1	27.3	33.1
West North Central	37.4	30.4	30.5	40.1
Delaware	37.3	37.1	36.2	43.5
Maryland	37.5	36.4	36.3	43.4
Virginia	45.9	41.5	43.1	50.3
West Virginia	56.8	49.9	49.6	57.4
North Carolina	39.1	31.4	35.5	38.0
South Carolina	24.7	21.6	24.8	30.9
Georgia	24.2	21.0	24.0	36.7
Florida	40.8	33.7	30.5	34.7
South Atlantic	35.3	31.0	33.0	39.7
Kentucky	45.9	42.3	44.9	53.4
Tennessee	40.1	34.8	39.4	47.3
Alabama	31.1	23.1	25.9	37.5
Mississippi	27.1	21.7	25.5	34.1
East South Central	36.3	30.2	33.5	43.0
Arkansas	34.6	24.5	29.2	40.4
Louisiana	26.9	21.7	24.2	36.4
Oklahoma	28.8	20.1	23.7	37.2
Texas	29.3	23.0	26.0	34.2
West South Central	30.0	22.6	26.0	36.4
Montana	52.3	28.5	27.1	33.8
Idaho	52.1	40.4	40.7	48.9
Wyoming	48.0	30.4	26.5	30.8
Colorado	41.6	29.1	28.2	37.3
New Mexico	44.7	37.6	39.6	39.3
Arizona	36.7	32.2	36.4	29.4
Utah	50.7	47.9	49.9	53.4
Nevada	34.2	35.2	37.8	41.4
Mountain	46.7	34.3	34.5	39.3
Washington	48.4	47.1	45.4	53.1
Oregon	47.4	45.1	44.5	53.7
California	35.4	30.7	26.4	34.2
Pacific	40.5	36.2	33.1	40.7

[1] See Methodology, p. 80.

TABLE 20.—*Part owners as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1920–50* [1]

State and geographic division	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*
Maine	1.8	2.1	2.2	5.0
New Hampshire	2.5	3.1	2.5	7.0
Vermont	2.7	3.3	4.0	8.8
Massachusetts	2.5	3.1	2.4	6.3
Rhode Island	3.4	3.3	4.2	9.1
Connecticut	3.1	3.5	3.6	8.8
New England	2.5	2.9	2.9	7.1
New York	4.1	4.5	5.6	10.5
New Jersey	2.0	2.2	3.7	7.5
Pennsylvania	3.0	3.0	3.2	7.5
Middle Atlantic	3.5	3.6	4.4	8.9
Ohio	5.9	7.5	6.5	11.6
Indiana	8.8	11.2	9.6	14.4
Illinois	9.1	10.7	10.9	16.2
Michigan	7.6	9.6	8.3	14.6
Wisconsin	3.9	5.4	6.0	9.8
East North Central	7.1	8.9	8.3	13.3
Minnesota	7.7	10.5	10.3	15.7
Iowa	7.8	8.6	7.6	12.7
Missouri	8.9	10.9	8.7	13.4
North Dakota	22.0	22.6	21.3	32.5
South Dakota	20.4	20.1	20.0	31.6
Nebraska	11.6	13.7	13.7	21.5
Kansas	15.0	17.6	17.0	26.8
West North Central	11.4	13.2	12.1	19.1
Delaware	2.1	2.8	3.7	7.9
Maryland	2.3	3.1	2.1	5.8
Virginia	5.5	6.3	4.9	7.8
West Virginia	5.0	4.9	3.3	4.7
North Carolina	5.7	6.9	5.8	9.9
South Carolina	3.1	4.2	4.5	9.1
Georgia	1.9	2.7	2.8	6.5
Florida	3.0	3.4	3.1	5.2
South Atlantic	3.8	4.8	4.2	7.8
Kentucky	5.8	6.9	5.6	9.5
Tennessee	5.7	6.8	5.7	10.3
Alabama	3.7	4.7	4.7	9.9
Mississippi	2.4	2.4	2.4	6.0
East South Central	4.5	5.1	4.5	8.9
Arkansas	5.1	5.5	5.0	8.7
Louisiana	2.7	2.8	3.4	6.8
Oklahoma	9.5	8.9	10.5	19.5
Texas	5.0	5.5	6.7	13.3
West South Central	5.5	5.7	6.4	12.3

See footnote at end of table.

TABLE 20.—*Part owners as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1920–50* [1]—Con.

State and geographic division	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*
Montana	15.8	21.1	20.1	28.0
Idaho	7.3	10.3	9.5	13.4
Wyoming	11.8	15.9	16.2	22.0
Colorado	11.1	12.0	11.6	17.6
New Mexico	8.6	8.9	10.4	15.6
Arizona	4.5	4.9	4.9	8.5
Utah	9.0	11.3	13.2	16.9
Nevada	2.7	4.0	4.3	6.5
Mountain	10.3	12.4	12.3	17.5
Washington	8.3	7.3	6.6	9.5
Oregon	9.1	9.4	8.2	9.7
California	5.1	4.1	4.0	5.9
Pacific	6.6	5.6	5.2	7.2

[1] See Methodology, p. 80.

TABLE 21.—*Tenants (for the South, tenants and sharecroppers) as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Maine	3.4	3.5	3.0	2.9	4.1	1.6
New Hampshire	6.0	5.2	4.6	3.2	3.8	2.0
Vermont	9.6	10.0	7.9	5.8	5.8	5.8
Massachusetts	5.6	5.2	3.8	2.5	3.4	1.8
Rhode Island	13.4	10.9	8.2	4.8	4.7	3.6
Connecticut	7.1	7.5	4.8	2.9	3.6	3.0
New England	6.3	6.1	4.7	3.4	4.2	2.3
New York	11.9	15.5	12.6	8.0	7.6	4.1
New Jersey	16.4	16.8	12.6	7.1	7.7	3.9
Pennsylvania	16.0	18.5	15.8	10.3	10.2	6.4
Middle Atlantic	13.9	16.9	14.0	8.9	8.7	5.0
Ohio	14.5	20.2	22.1	18.3	19.0	13.9
Indiana	18.0	21.4	24.3	21.8	21.2	15.4
Illinois	23.9	27.4	30.1	28.3	30.3	26.8
Michigan	7.8	12.0	13.8	11.0	12.1	7.0
Wisconsin	7.2	10.0	10.6	12.6	15.8	12.0
East North Central	15.8	19.3	20.9	19.0	20.1	15.9

See footnotes at end of table.

TABLE 21.—*Tenants (for the South, tenants and sharecroppers) as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]—Continued

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Minnesota	7.5	12.7	17.7	21.1	22.6	16.5
Iowa	19.3	26.2	30.9	33.6	34.2	30.9
Missouri	21.7	23.5	22.2	25.8	26.6	16.5
North Dakota [2]	3.4	6.4	19.4	23.4	32.4	16.8
South Dakota [2]		17.2	26.3	32.0	40.8	23.6
Nebraska	15.7	29.4	33.1	34.5	40.6	31.8
Kansas	13.7	27.7	32.5	32.6	35.9	25.6
West North Central	16.8	22.7	25.9	28.7	31.6	23.1
Delaware	26.5	31.5	25.9	20.3	19.1	10.6
Maryland	16.3	18.8	16.7	14.2	13.5	11.2
Virginia	18.6	20.9	18.3	18.4	17.4	11.7
West Virginia	14.2	16.1	12.3	12.4	15.4	7.0
North Carolina	22.9	30.9	35.1	36.5	32.6	30.9
South Carolina	30.9	43.7	50.9	47.2	37.0	34.8
Georgia	27.9	42.9	51.9	49.9	40.1	33.6
Florida	20.2	19.7	15.0	14.6	11.2	5.5
South Atlantic	23.0	31.5	35.4	33.6	28.9	24.4
Kentucky	18.3	24.3	26.5	26.9	24.6	17.1
Tennessee	25.4	30.4	32.6	35.0	29.9	23.4
Alabama	33.1	44.1	46.9	50.1	43.2	33.4
Mississippi	28.8	49.3	56.1	61.0	54.0	43.9
East South Central	25.8	36.5	40.1	43.8	38.6	29.6
Arkansas	23.0	35.8	41.6	50.0	38.5	29.6
Louisiana	18.1	37.1	38.8	48.1	39.8	30.4
Oklahoma [3]		36.4	40.4	45.7	40.5	25.0
Texas	29.4	37.6	39.7	43.4	31.0	19.5
West South Central	25.8	36.5	40.1	43.8	38.6	29.6
Montana	4.3	6.5	8.9	16.0	18.1	9.9
Idaho	4.2	6.8	11.5	17.0	17.1	13.3
Wyoming	2.2	6.0	8.8	13.0	13.5	10.6
Colorado	11.0	16.3	16.1	21.5	23.4	15.3
New Mexico	6.2	7.2	7.7	11.7	10.2	7.9
Arizona	11.3	6.9	9.4	7.3	5.4	5.1
Utah	3.8	6.9	7.3	8.1	9.6	5.1
Nevada	7.2	6.2	4.0	5.8	7.1	4.1
Mountain	6.8	9.0	10.7	14.9	15.5	10.5
Washington	5.8	10.4	13.4	11.1	11.1	6.6
Oregon	11.4	13.2	13.3	11.7	11.7	5.6
California	14.4	13.0	11.5	7.6	7.2	5.3
Pacific	12.7	12.5	12.3	8.9	8.7	5.6

[1] See Methodology, p. 80.
[2] Includes Dakota territory.
[3] Excludes Indian territory in Oklahoma.

TABLE 22.—*Laborers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Maine	20.9	24.9	29.4	34.7	36.4	34.6
New Hampshire	26.4	30.7	33.8	40.7	40.5	35.4
Vermont	28.0	31.6	33.9	39.5	41.3	36.0
Massachusetts	31.1	45.3	48.8	55.6	52.6	44.3
Rhode Island	32.5	45.6	49.4	61.2	54.0	44.1
Connecticut	31.0	41.9	45.6	53.8	49.5	42.5
New England	27.1	35.1	38.4	45.9	44.4	39.0
New York	28.0	35.0	36.2	39.2	39.9	32.4
New Jersey	33.2	43.6	46.4	54.4	50.7	44.7
Pennsylvania	24.6	28.7	29.7	34.6	36.1	30.3
Middle Atlantic	27.0	33.1	34.3	38.9	39.4	33.0
Ohio	24.6	26.2	26.7	30.0	27.3	19.7
Indiana	24.1	25.3	25.5	27.3	24.6	17.7
Illinois	23.8	30.2	30.8	34.2	29.5	22.1
Michigan	21.9	24.6	23.1	28.7	27.8	18.4
Wisconsin	20.2	26.0	27.8	30.7	30.9	22.5
East North Central	23.3	26.7	27.0	30.5	28.2	20.4
Minnesota	18.0	26.7	29.9	32.1	30.0	19.4
Iowa	18.9	24.9	26.9	28.9	27.9	18.2
Missouri	20.6	22.9	24.3	25.4	25.0	16.9
North Dakota [2]	12.8	25.0	25.0	33.2	27.9	19.6
South Dakota [2]		20.9	25.6	28.2	22.8	19.2
Nebraska	12.7	20.3	23.7	26.7	22.9	16.7
Kansas	16.1	21.3	20.6	22.7	19.8	14.5
West North Central	18.1	23.4	25.3	27.9	25.8	17.7
Delaware	37.4	37.4	34.7	39.8	41.0	38.0
Maryland	47.4	44.0	43.5	46.3	48.1	39.6
Virginia	37.0	31.9	30.3	33.8	34.6	30.2
West Virginia	26.1	26.2	25.9	32.8	31.7	30.9
North Carolina	31.6	25.3	20.1	25.2	26.1	21.2
South Carolina	38.6	28.5	21.3	27.0	33.7	25.2
Georgia	37.9	28.3	22.0	26.4	33.1	23.2
Florida	34.5	25.7	41.2	48.3	55.2	54.6
South Atlantic	36.0	29.0	25.5	30.6	33.9	28.1
Kentucky	31.0	25.9	21.8	23.9	24.9	20.0
Tennessee	26.5	25.1	21.6	23.4	25.0	19.0
Alabama	29.3	23.6	18.3	22.1	26.2	19.2
Mississippi	34.2	21.1	14.4	14.9	18.1	16.0
East South Central	30.2	24.0	19.1	20.9	23.4	18.5
Arkansas	25.7	21.1	18.7	20.0	27.3	21.3
Louisiana	48.6	36.1	31.6	27.4	32.6	26.4
Oklahoma [3]		16.8	21.3	25.3	25.3	18.3
Texas	21.8	24.3	26.0	28.1	36.3	33.0
West South Central	28.5	25.1	24.4	25.8	32.0	27.0

See footnotes at end of table.

TABLE 22.—*Laborers as percentage of male agricultural workers aged 20 and over, States and major geographic divisions, 1880–1950* [1]—Con.

State and geographic division	1880	1900	1920	1930	1940	1950
	Percent	*Percent*	*Percent*	*Percent*	*Percent*	*Percent*
Montana	17.9	29.1	23.0	34.4	34.7	28.3
Idaho	11.7	22.3	29.1	32.3	32.7	24.4
Wyoming	23.8	21.1	31.4	40.7	43.8	36.6
Colorado	14.9	27.8	31.2	37.4	36.8	29.8
New Mexico	23.0	22.9	39.0	41.8	39.8	37.2
Arizona	14.6	17.5	49.4	55.6	53.3	57.0
Utah	17.1	21.5	33.0	32.7	27.3	24.6
Nevada	25.8	45.9	59.1	55.0	50.8	48.0
Mountain	18.3	24.9	32.3	38.4	37.7	32.7
Washington	19.5	27.5	29.9	34.5	36.9	30.8
Oregon	19.0	25.6	30.2	33.8	35.6	31.0
California	27.6	43.9	48.0	57.6	62.4	54.6
Pacific	24.8	36.6	40.6	49.3	53.0	46.5

[1] See Methodology, p. 80.
[2] Includes Dakota territory.
[3] Excludes Indian territory in Oklahoma.

TABLE 23.—*Numbers in each principal tenure class per 1,000 male agricultural workers aged 20 and over, 8 selected States, 1880 and 1930, as estimated by Black and Allen in 1937 and in the Bureau of Agricultural Economics in 1948*

State and tenure class	1880		1930	
	Black and Allen	BAE	Black and Allen	BAE
	Number	*Number*	*Number*	*Number*
New Jersey:				
Owners	473	504	386	385
Tenants	154	164	70	71
Laborers	373	332	544	544
Ohio:				
Owners	593	609	517	517
Tenants	141	145	183	183
Laborers	266	246	300	300
Wisconsin:				
Owners	743	726	566	567
Tenants	74	72	126	126
Laborers	183	202	308	307
Iowa:				
Owners	630	618	375	375
Tenants	197	193	336	336
Laborers	173	189	[1] 289	289
Kansas:				
Owners	715	702	427	447
Tenants	139	137	315	326
Laborers	146	161	258	227
North Carolina:				
Owners	474	455	382	383
Tenants	237	229	366	365
Laborers	289	316	252	252
Alabama:				
Owners	388	376	277	278
Tenants	342	331	502	501
Laborers	270	293	221	221
California:				
Owners	580	580	348	348
Tenants	143	144	75	76
Laborers	277	276	577	576

[1] This was misprinted as 389 in the original article.

Estimates developed from data from the decennial censuses of population and agriculture. Estimates labeled "Black and Allen" are from their Growth of Farm Tenancy in the United States (*9*). Estimates labeled "BAE" were developed by Taylor, Ducoff, and Hagood (*44*), by adapting the methods used by Black and Allen.

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