

SECTION II—PRODUCTION

Type and Quantity

Tenure and production.—Farm tenure, through its effect on the production of food and fiber, touches the life of every person, rural and urban. The economic well-being of every citizen is affected by the efficiency with which land, capital, and labor devoted to agriculture are used. The way in which the factors used in agriculture are combined determines, in part, the income, level of diet, quality of dress, and quantity of manufactured goods available to all people. For this reason, the tenure status of farmers and the effect of this status on the manner in which farmers organize their resources are matters of concern to everyone.

The effect of the tenure status of farmers on efficiency of production may come about in several ways. In general, their tenure affects their production through (1) a separation of costs and returns of a resource as between one individual and another, such as landlord and tenant, or as between points in time; (2) the transference of risk from one party to another; and (3) the division of the managerial function, such as exists on most rented farms, as opposed to the usually undivided management of full-owner farms.

The impact of these factors upon the organization of resources and upon the efficiency of their use varies according to the tenure status of individual farmers. Of the various tenure groups, farmers in the debt-free, full-owner classification have the greatest freedom in combining their resources toward the end of maximizing their income over time. A debt-free full owner has maximum security of expectations with respect to his length of stay on the farm. He is free to combine his resources in any way that is economically feasible to obtain the maximum production over time. A full owner whose land is mortgaged has less security of expectations. Consequently, he places a premium on those productive enterprises that he thinks will bring an early return. For tenants, the length of expected tenure is much less than that for mortgaged owners. A tenant cannot plan as far in the future as can owners in making investments and in starting new enterprises and adopting improved practices. For insecure tenants, expenditures must be expected to yield immediate returns or they will not be undertaken.

Production on rented farms may be affected by the type of rent paid. Cash tenants must usually make definite commitments in advance of the production period as to the amount of rental payment. Since prices and production may vary widely between the time the rental commitment is made and the product is marketed, the cash tenant assumes considerable risk. As a result, a cash tenant usually prefers short-term, low-risk enterprises for his farm rather than the longer-maturing, higher-risk (from the standpoint of prices and production) ventures, even though these enterprises might have offered him a better opportunity if the rent-induced risk factor had not been present.

A further effect upon production arises from the over-all combination of resources. As the cash rent is a fixed payment that must be paid regardless of the level of prices, a tenant may hesitate to assume any commitment that would substantially reduce his equity in his resources in the event of a decline in prices or a crop failure. Cash tenants are likely, therefore, to restrict the acreage of land which they rent and to substitute labor and capital, particularly mobile capital, for additional land.

Production on share-rented farms is affected in a different way. Risks of the kind experienced by cash tenants are almost wholly absent from share-renting arrangements. The value of the share

(rent) varies as the price and quantity of the product vary. The total output and the efficiency of use of the resources, however, may be influenced by the way in which the costs and returns are shared. If one party bears all the cost of a resource and receives only a part of the additional production resulting from its use, less of the resource will probably be used than if the costs were shared in the same proportion as the production is divided. Similarly, if the financial returns from several enterprises are involved, and if the returns from all of them are not divided in the same ratio, the party responsible for production has an incentive to allocate a disproportionate part of the resources under his control to those enterprises from which he receives the larger share.

It can further be expected that production from share-rented farms will be less sensitive to price changes than production from owner-operated or cash-rented farms. A given rise in price will provide an incentive for an owner or a cash renter to increase production until the cost of the last unit produced is just covered by the new price. A share tenant, who receives only a part of the increase in production through additional increments of productive capital and labor, does not have this full incentive. His economically feasible limit of expansion is short of that of a full owner or a cash tenant.

The division of management may also affect the amount of production on rented farms. Many of the decisions must be arrived at jointly and, as the landlord and tenant may each have a power of veto, management may not function as decisively or as promptly as on an owner-operated farm. This may impose a limitation upon the kinds, combinations, and timing of the use of resources, and may reduce total output.

The effect of the tenure status of farmers on the organization and use of agricultural resources is not the concern of the present generation alone. The obstacles to maximum use of resources set up by some aspects of the tenure system may in many cases be great when considered in the short run, but they increase disproportionately when, from the standpoint of time, returns and investment become more widely separated. Resources devoted to the conservation of land are frequently slow in yielding returns, but the fact that these resources are used to conserve the land vitally concerns succeeding generations. A tenure system that (1) forces the farmer to place a premium on those enterprises which yield an early return, (2) places undue emphasis on intertilled crops as opposed to livestock production, (3) does not afford the operator an opportunity to recoup his conservation investments, and (4) because of short tenure expectations, variable prices and production, and heavy fixed commitments, makes soil-exploitation the likely course of action, may yield its return to the present generation in the form of lower prices for food, but its costs may well be borne by following generations.

The relation of tenure to total production is shown on the following pages. It will be noted that nearly half of all livestock and livestock products are produced on rented farms and on other farms affected by rental arrangements. Such farms produce an even larger proportion of the crop production of the country. Rented farms contain a high percentage of the Nation's cropland. Also, nearly all of a future increase in production is expected to come from the high-tenancy areas. These are conditions with which not only those interested in agriculture, but all interested in future food and fiber supplies, may be concerned.

PERCENT DISTRIBUTION OF VALUE OF FARM PRODUCTS SOLD, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950

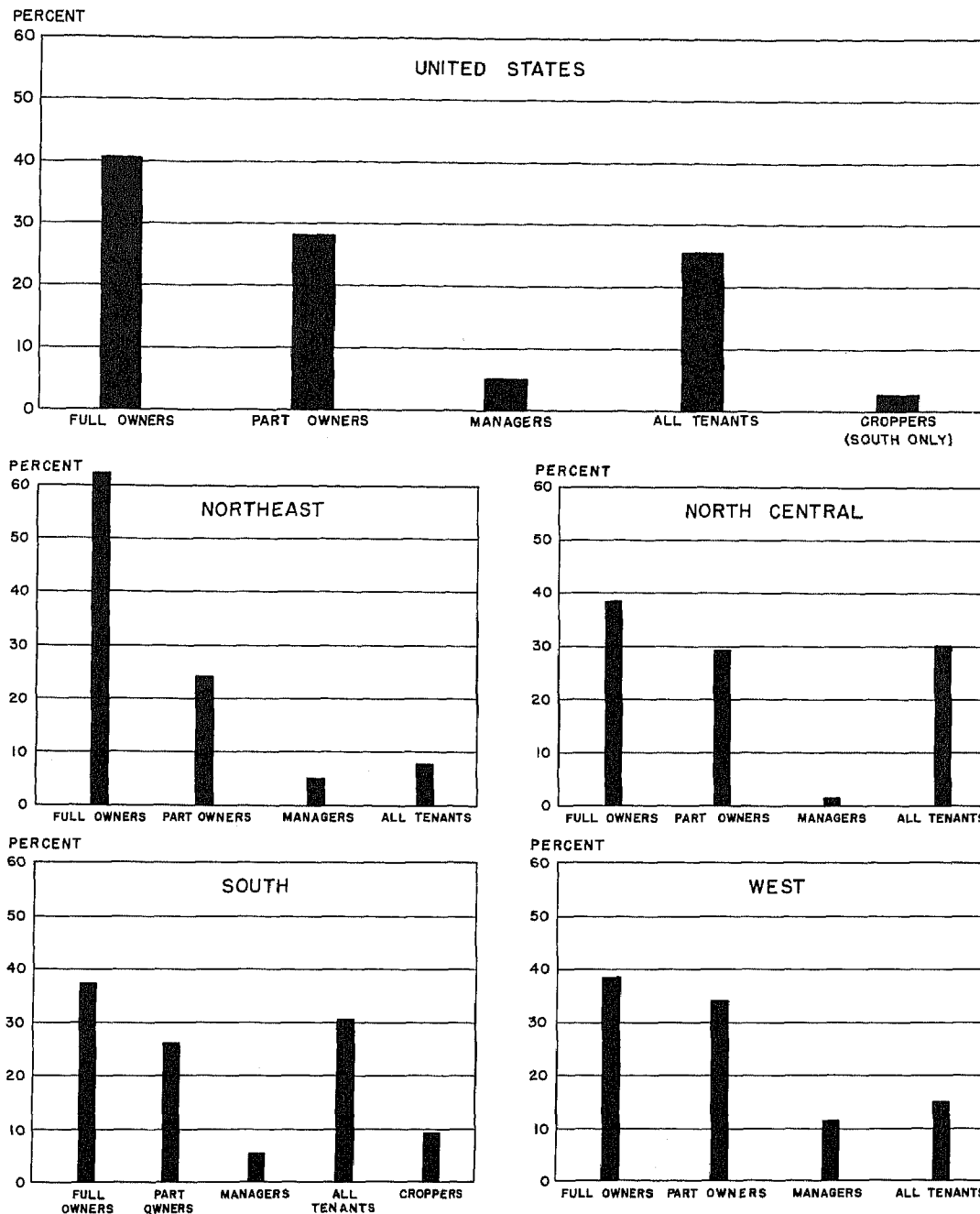


Figure 22

Value of farm products sold.—For the United States more than half of the value of agricultural output on commercial farms was produced on tenant and part-owner farms. In 1949 the total value of sales of agricultural products amounted to \$21,713,216,602. Sales from full-owner farms amounted to \$8,802,485,276, or 40.5 percent of the total. Sales from manager-operated farms amounted to \$1,075,730,162, or 5.0 percent of all sales. Part owners sold products valued at \$6,279,304,050, accounting for 28.9 percent of the total. Sales from tenant farms accounted for \$5,555,697,114, or 25.6 percent of all sales. Thus, the output of farms dependent wholly or in part upon rented land amounted to 54.5 percent of the total value of sales from the Nation's commercial farms.

In the more productive areas of the country, tenant and part-owner farms together form an even more important part of the agricultural plant. In the North Central States, for example,

nearly 59.6 percent, or about three-fifths, of the total value of sales was for tenant and part-owner farms. In the South, the region on which the National economy depends heavily for its fiber, 56.9 percent of the total value of agricultural output was produced on farms with a tenancy arrangement. Tenants and part owners also made important contributions to the agricultural output of the West, their combined production amounting to 49.2 percent of the total. In the Northeast, with its rough terrain and low level of tenancy, the proportion of agricultural output on tenant and part-owner farms was less than half of the total. Tenants and part owners in the Northeast accounted for 32.1 percent of the total output.

It is apparent that a large part of the food and fiber comes from farms where the tenure status of the operator may affect the efficiency with which the land resources are used.

A GRAPHIC SUMMARY

PERCENT DISTRIBUTION OF VALUE OF LIVESTOCK AND LIVESTOCK PRODUCTS
SOLD, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR
THE UNITED STATES AND REGIONS: CENSUS OF 1950

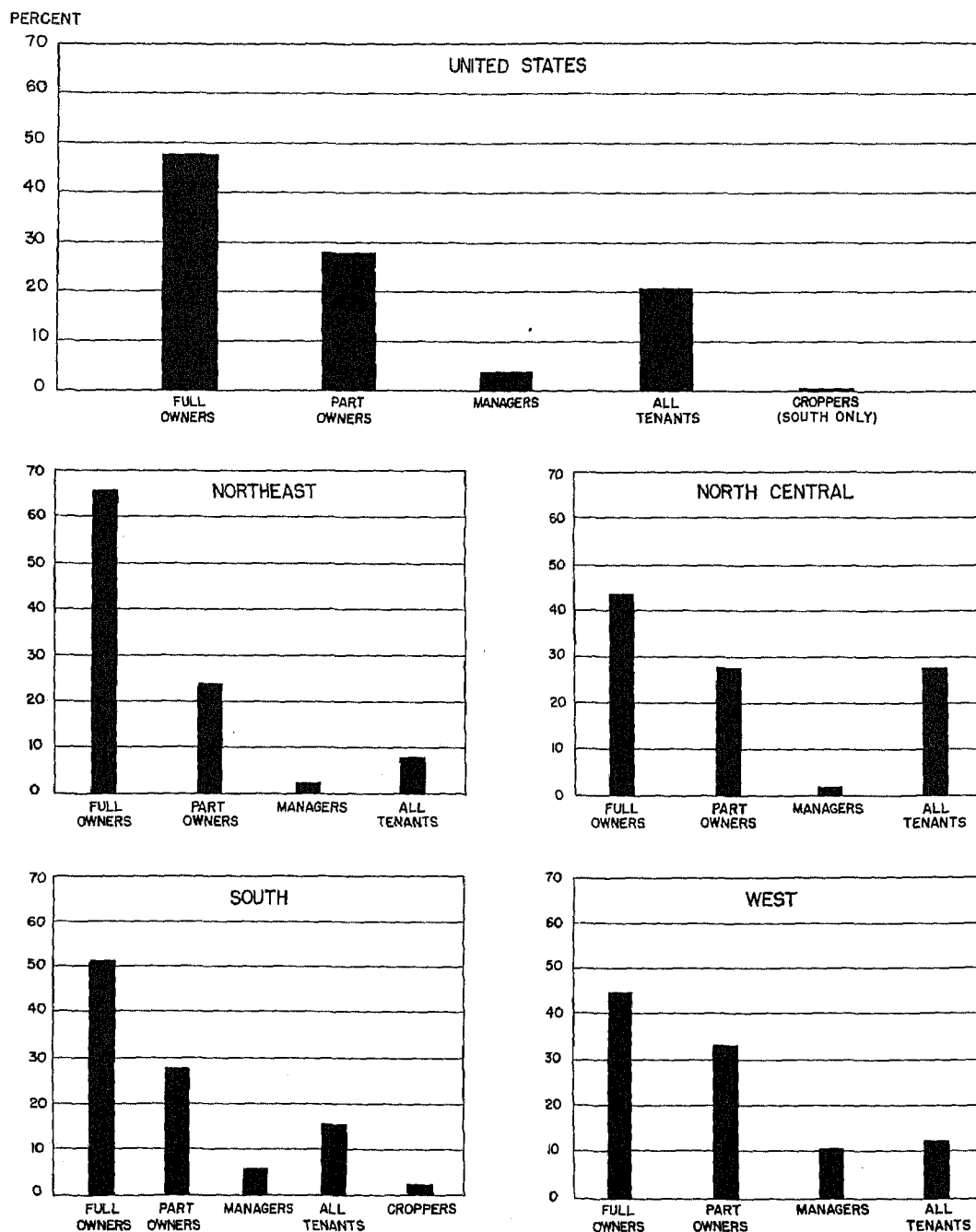


Figure 23

Livestock production.—Nearly half, or 48.7 percent, of the total value of sales of livestock and livestock products for commercial farms in the United States in 1949 was for farms that were rented entirely or in part. Part owners produced 28.0 percent of the marketed livestock and livestock products and tenants produced 20.7 percent. Of the remainder, 47.5 percent was produced on full-owner farms and 3.8 percent on manager farms.

The tenure under which the operator occupies the farm may affect livestock production in several ways. For example, a full owner whose farm is mortgaged may be restricted in the amount of working capital available for livestock production. Instead of buying breeding stock or equipment, or even feeder animals, he may find it necessary to use most of his available funds to pay the amortization and interest on his mortgage.

Tenants are faced with a problem different from that of full

owners. Under most rental agreements, landlords do not share directly in the income from the livestock enterprises. Only in the livestock-share plan does the landlord participate directly in the livestock enterprises.

Modern livestock production calls for extensive facilities—barns, lots, improved pastures, fences, and water systems—which are not easily moved and which under the present institutional framework are identified with the land. For the tenant whose tenure expectancy is less than the life of these improvements, it is not economically feasible to provide long-term investments that he may be compelled to abandon when he leaves the farm. Most tenants depend rather heavily on their landlords to supply these facilities. Most landlords, by not having a direct financial interest in the livestock enterprises, lack a strong incentive for supplying the needed facilities.

PERCENT DISTRIBUTION OF VALUE OF CROPS SOLD, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950

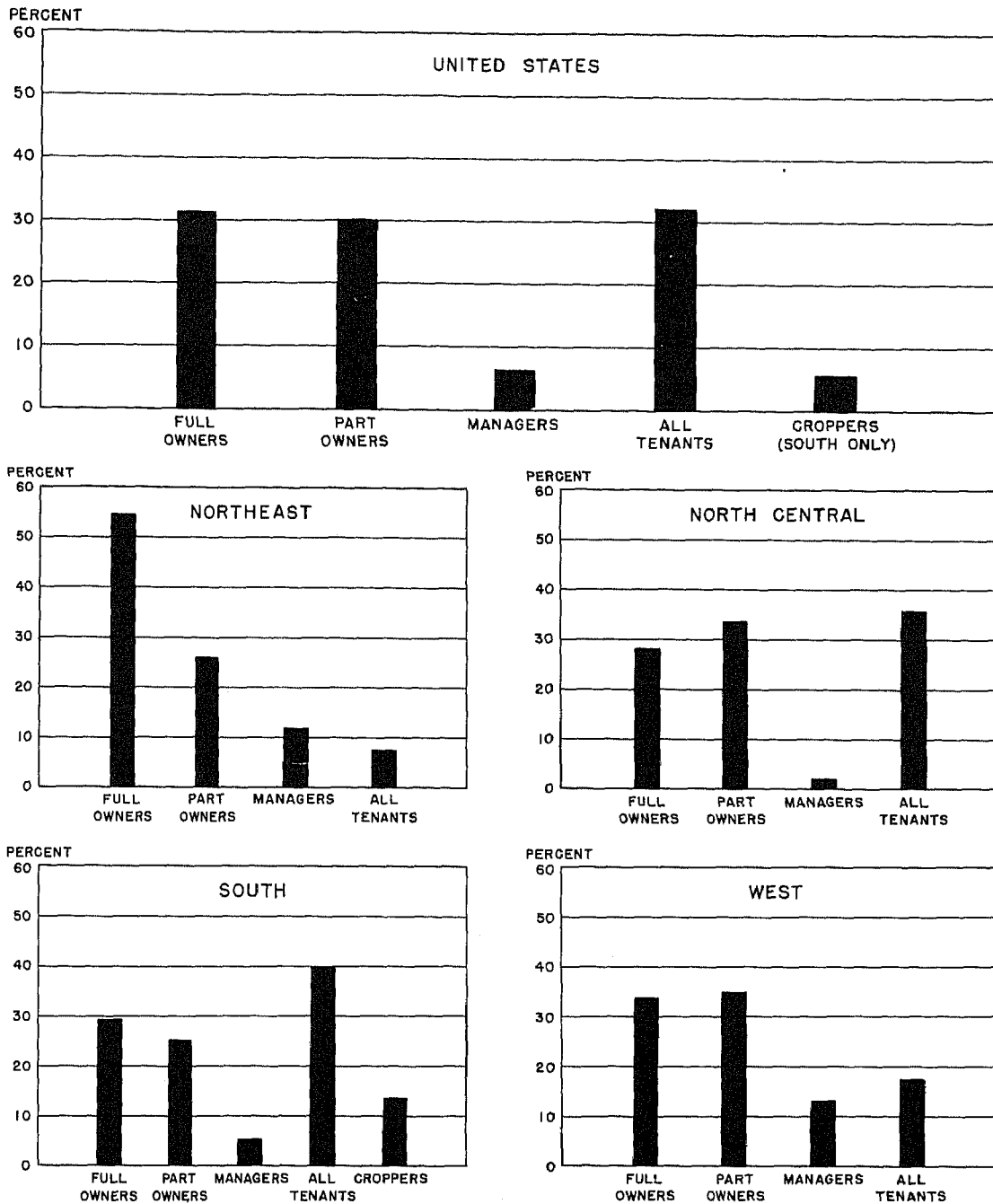


Figure 24

Value of crops sold.—The bulk of the income from crop sales for commercial farms in 1949 occurred on the farms of tenants and part owners. Tenants and part owners together accounted for 62.2 percent of the total sales of crops as compared with 48.7 percent of the sales of livestock and livestock products. Full owners and managers produced 37.8 percent of the commercial crops, as compared with 51.3 percent of the commercial livestock production.

Among the factors accounting for a high proportion of the crops being produced on rented farms is the short-term lease. The insecurity of tenure places a premium on early-maturing enterprises. This tends to make crop production more attractive than livestock production. Another factor contributing to the concentration on crop production on rented and part-owner farms is that tenancy is most prevalent in those areas where crop production has a comparative advantage over livestock production.

In addition, the amount of crop-share rent is usually easier to

agree upon and to collect than livestock-share rent. Furthermore, crop farming demands less management and attention on the part of the landlord than does a livestock system of operation. Also, landlords usually consider the production of staple crops, where management is divided with the tenant, much less hazardous than the production of livestock. For these reasons, tenancy tends to encourage crop production rather than livestock farming.

The premium placed on crop production by the tenure system may not be in the best long-run interest of the tenant, of the landlord, or of society. The crop-share renting system results in fewer livestock facilities as the landlord does not participate directly in the returns from the livestock enterprises. Furthermore, because of a lack of facilities and the emphasis on crop production, livestock production on share-rented farms may not be as responsive to changes in the livestock-feed-grain price relationship as livestock production on owner-operated, cash-rented, or livestock-share rented farms.

A GRAPHIC SUMMARY

PERCENT DISTRIBUTION OF ALL LAND IN FARMS ACCORDING TO MAJOR USES,
 BY TENURE OF OPERATOR, FOR THE UNITED STATES:
 CENSUSES OF 1950 AND 1945

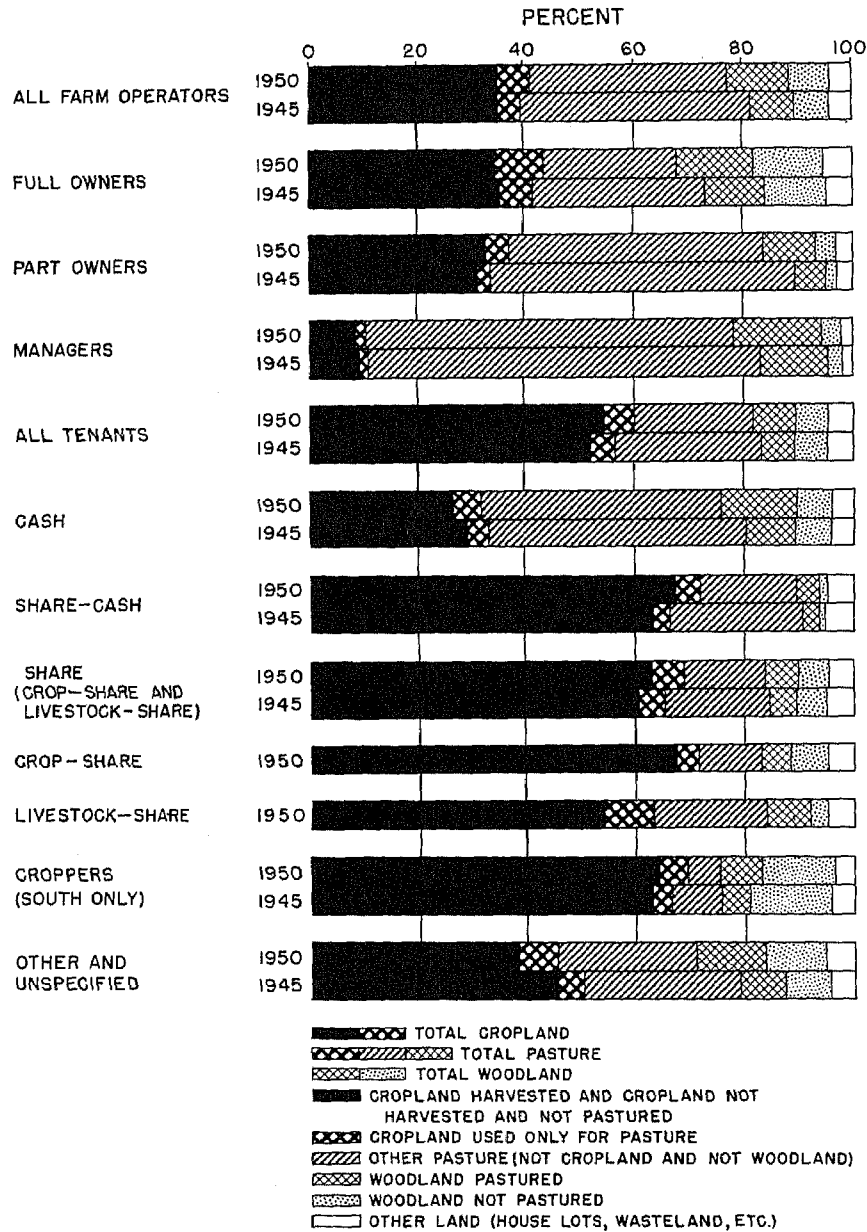


Figure 25

Major uses of land in farms.—A higher proportion of land in tenant farms was cropland in 1949 than in full-owner farms, part-owner farms, or manager farms. The 1950 Census recorded 60.0 percent of the land in tenant farms as cropland. The corresponding percentage of cropland in full-owner farms was 43.6; part-owner farms, 37.2; and manager farms, 10.4. A smaller proportion of the land in tenant farms was used for pasture than that for other tenure groups. The percentage of pasture land for tenant farms was 29.8 as contrasted with 38.4 for full-owner farms, 56.3 for part-owner farms, and 84.2 for manager farms. For full owners, 12.9 percent of the 1949 acreage was nonpastured woodland, while only 3.6 percent of the land in part-owner farms was of this type. Of the land in tenant farms, 5.7 percent was nonpastured woodland. For all farms the percentage was 7.3.

The land-use pattern for cash-tenant farms more closely approximated that for full-owner farms than that for any other tenure. Cropland amounted to only 31.8 percent of the land in

cash-rented farms as compared with 72.0 percent of the land in share-cash farms, 71.6 percent in crop-share farms, 63.4 percent in livestock-share farms, and 69.5 percent in cropper farms.

The quality of land influences the level of tenancy and tenancy, in turn, influences land use. If land is sufficiently productive, an environment exists which will permit the separation of ownership and tillage, and tenancy may be expected to appear. Economic productivity of the land may arise either through the presence of natural fertility or through combination with large amounts of labor and capital. With the present techniques of production and the present price relationships, land best suited for the production of crops is more productive economically than land suited only for livestock production. The areas best suited to the production of crops are the areas with high land values and a high proportion of tenancy. For this reason, it could be expected that rented farms would contain a higher percentage of cropland than owner-operated farms.

PERCENT DISTRIBUTION OF GROPLAND, LAND PASTURED, AND WOODLAND, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950

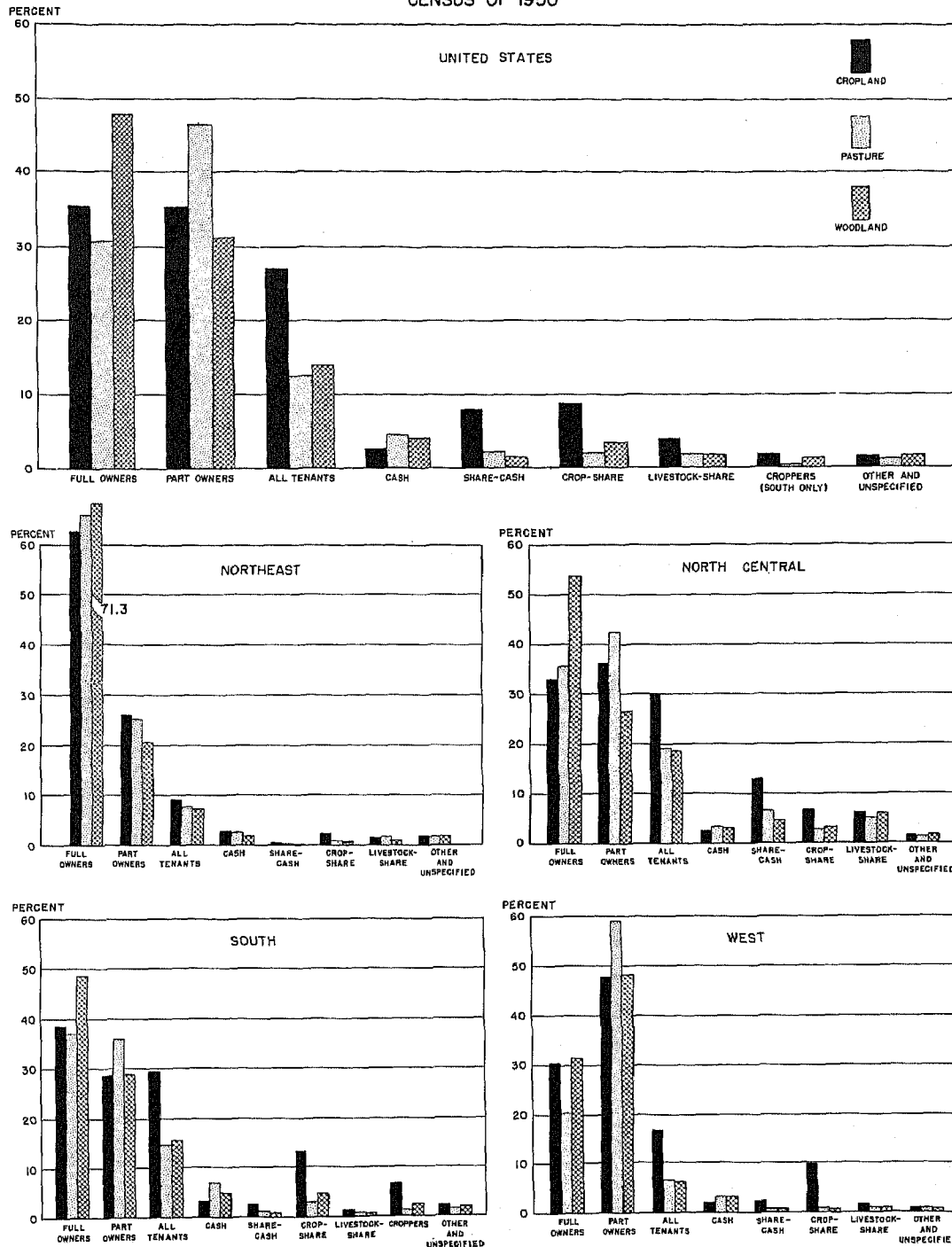
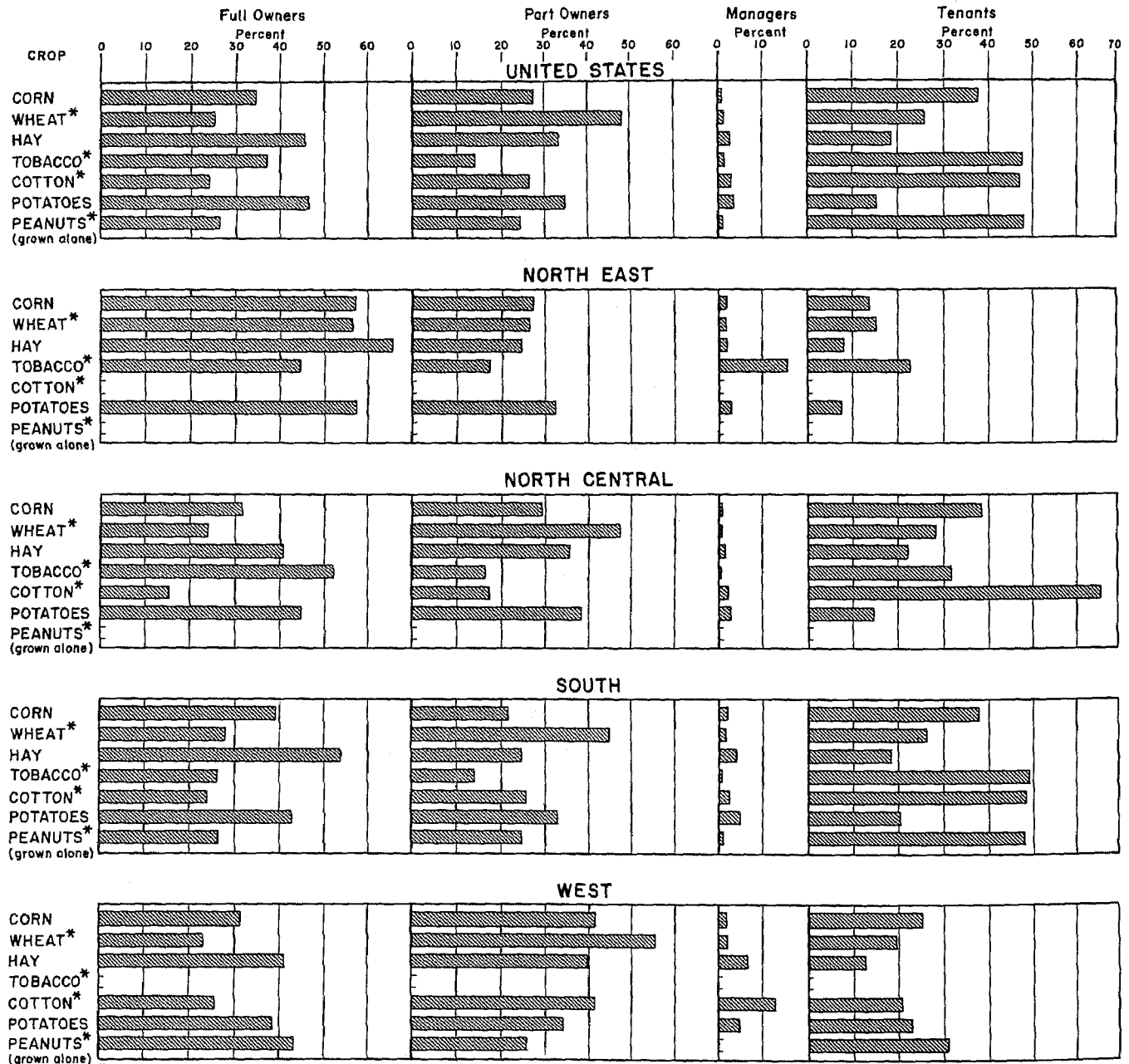


Figure 26

Relation of tenure to land use.—The proportion of cropland operated by full owners and part owners is approximately the same—slightly more than a third—for the country as a whole. Tenants operated a little more than a fourth of the cropland, the major part of which was operated by crop-share and share-cash tenants.

The rank of the three main tenure groups as to the proportion of the total pasture land in farms for each group was first, part owners with 46.5 percent; second, full owners with 30.8 percent; and third, tenants with 12.5 percent. Total woodland was divided among the tenures as follows: Full owners, 47.9 percent; part owners, 31.3 percent; and tenants, 14.0 percent. Cash tenants had a disproportionately large part of the pasture and woodland.

PERCENT DISTRIBUTION OF ACRES OF THE PRINCIPAL CROPS HARVESTED, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950



* Data are for States for which information was tabulated by tenure of operator. Percentages would not be significantly changed if based on totals for all States.

Figure 27

Relation of tenure to crop production.—In 1949, the major part of the acreages of principal crops was harvested from tenant or part-owner farms. For the United States, the two tenure groups whose land use is affected by renting—tenants and part owners—harvested a larger proportion of the acreage devoted to most of the principal crops than did full owners and managers.

In the Northeast, however, the situation was just the reverse, owing to the numerical predominance of full-owner operations. More than half of the total acreage of all of the principal crops was harvested from full-owner and manager farms. Tenants specialized more in tobacco production than in the growing of any other principal crop. Generally, in respect to their numbers, tenants grew a disproportionately large share of the acreage of the crops requiring much hand labor.

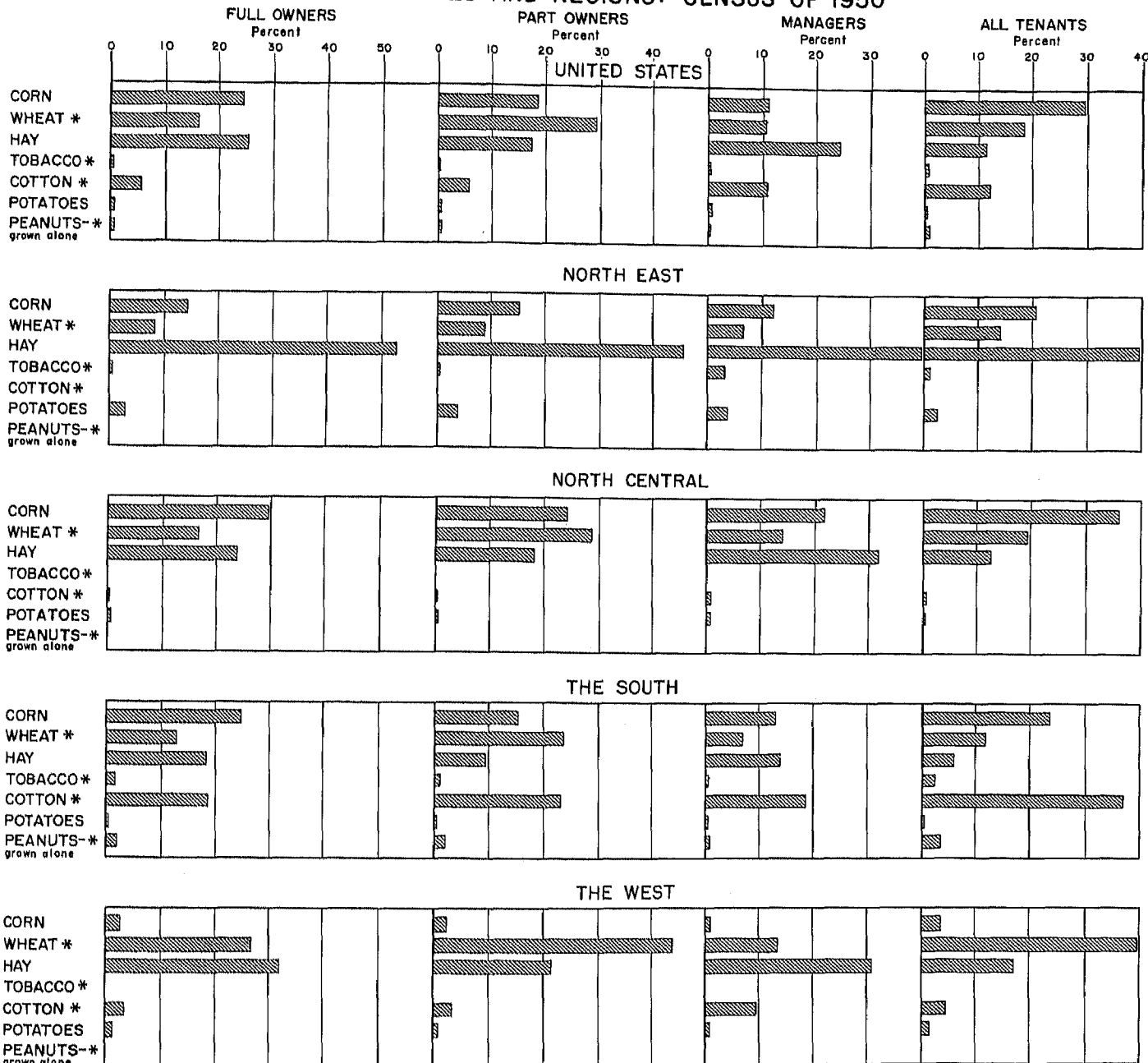
In the North Central States, tobacco was the only crop for which full owners harvested more than half of the total acreage.

This at first seems to contradict the general principle that tenants tend to grow crops requiring much hand labor. However, tobacco is grown as a major crop on only a relatively few farms in the North Central States. It is grown frequently in small acreages on full-owner farms to increase income. In addition, the proportions of the acreage devoted to tobacco in owned farms and in rented farms are not significantly different.

In the South, full owners and managers harvested 57.2 percent, or more than half of the hay acreage, but less than half of the acreage of the other principal crops. It should be recalled that, in the South, tenants, compared with full owners, had very few livestock to consume hay and other feed or forage crops. Note also the large proportion of the labor-demanding crops—cotton and tobacco—grown by tenants.

In the West, tenants and part owners harvested more than half of the total acreage of each of the principal crops.

PERCENT OF CROPLAND HARVESTED REPRESENTED BY ACRES HARVESTED OF THE PRINCIPAL CROPS, BY TENURE OF OPERATOR, FOR COMMERCIAL FARMS, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950



* Data are for States for which information was tabulated by tenure of operator. Percentages would not be significantly changed if based on totals for all States.

Figure 28

Acres of principal crops as a percentage of cropland harvested.— For the United States as a whole, tenants devoted a larger proportion of their acreage of cropland harvested to corn, tobacco, cotton, and peanuts, than did operators in other tenures. Tenants harvested corn from almost a third of their harvested cropland, wheat from almost one-fifth, cotton from 12.0 percent, and peanuts from 1.0 percent.

For full-owner farms, hay was cut from a little more than a fourth of their harvested cropland, corn from about a fourth, and wheat from approximately a sixth.

Part owners harvested wheat from almost a third of their cropland harvested, corn from almost a fifth, and hay from almost a sixth.

In the United States, tenants used a higher percentage of the cropland on their farms in the production of corn than full owners (fig. 27). In 1949, 29.8 percent of the cropland harvested on tenant farms was in corn, as contrasted to 24.0 percent for full owners and only 18.8 percent for part owners. Part owners used more of their cropland for wheat, 29.6 percent, than either tenants or full owners, who used 18.6 and 15.9 percent, respectively. Full owners and managers used about one-fourth of their cropland for hay (25.1 and 24.6 percent, respectively), as opposed to 17.8 percent for part owners and only 11.5 percent for tenants. A higher proportion of cropland on tenant farms was devoted to the production of tobacco, cotton, and peanuts than on the farms of any other tenure group.

A GRAPHIC SUMMARY

AVERAGE ACREAGE PER COMMERCIAL FARM OF CROPLAND, LAND PASTURED AND WOODLAND, BY TENURE OF OPERATOR, FOR THE UNITED STATES AND REGIONS: CENSUS OF 1950

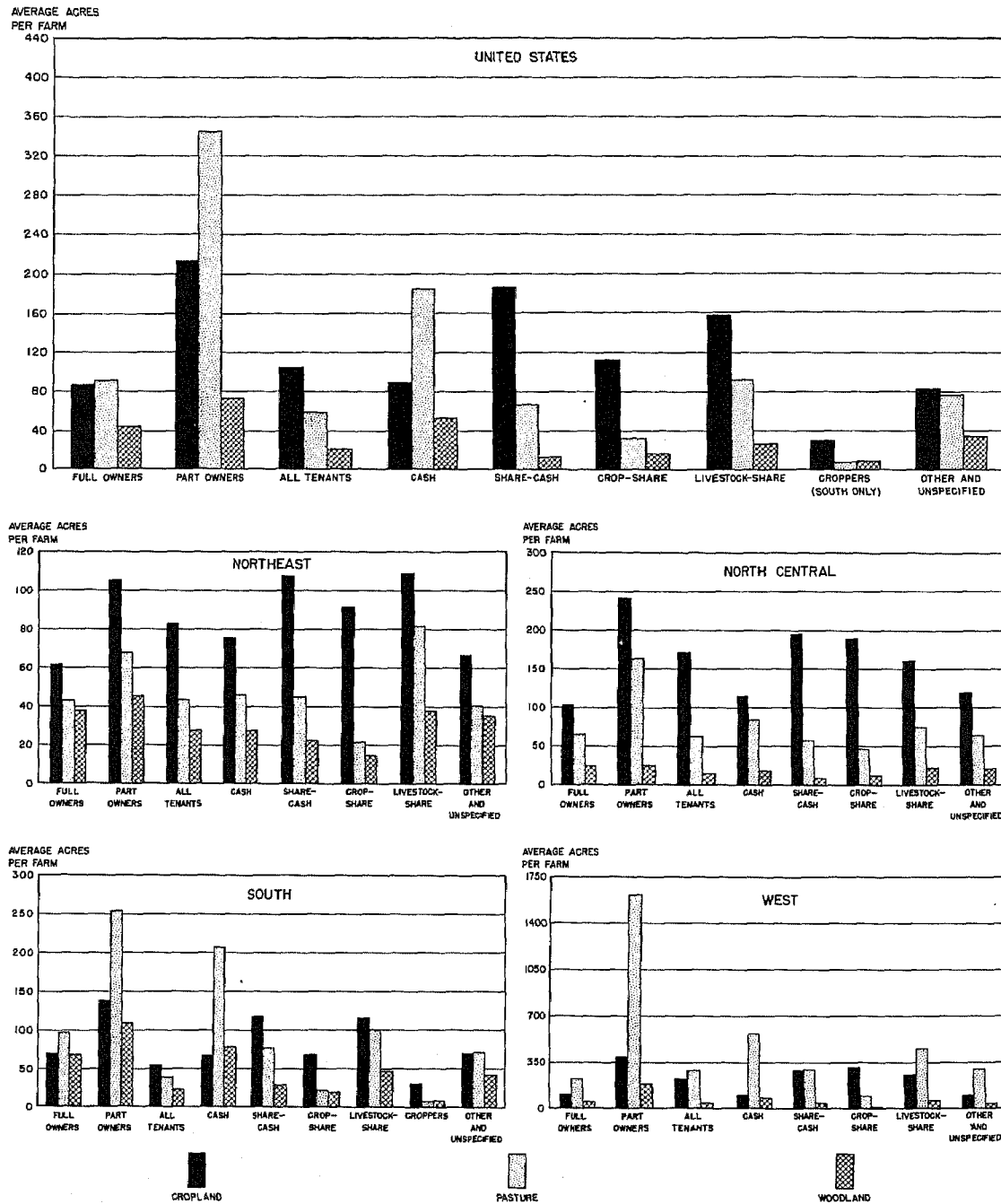


Figure 29

Major land use and tenure.—The average acreage per farm of cropland, land pastured, and woodland varied considerably among the three major tenure groups (managers excluded) and the several classes of tenants. The average acreage for each of the three major land uses was higher for part owners than for any other tenure group. Part-owner farms were much larger than farms in the other tenure groups except managers, as shown in figure 39. Tenants averaged larger acreages of cropland per farm than full owners, and considerably smaller acreages of pastureland and woodland.

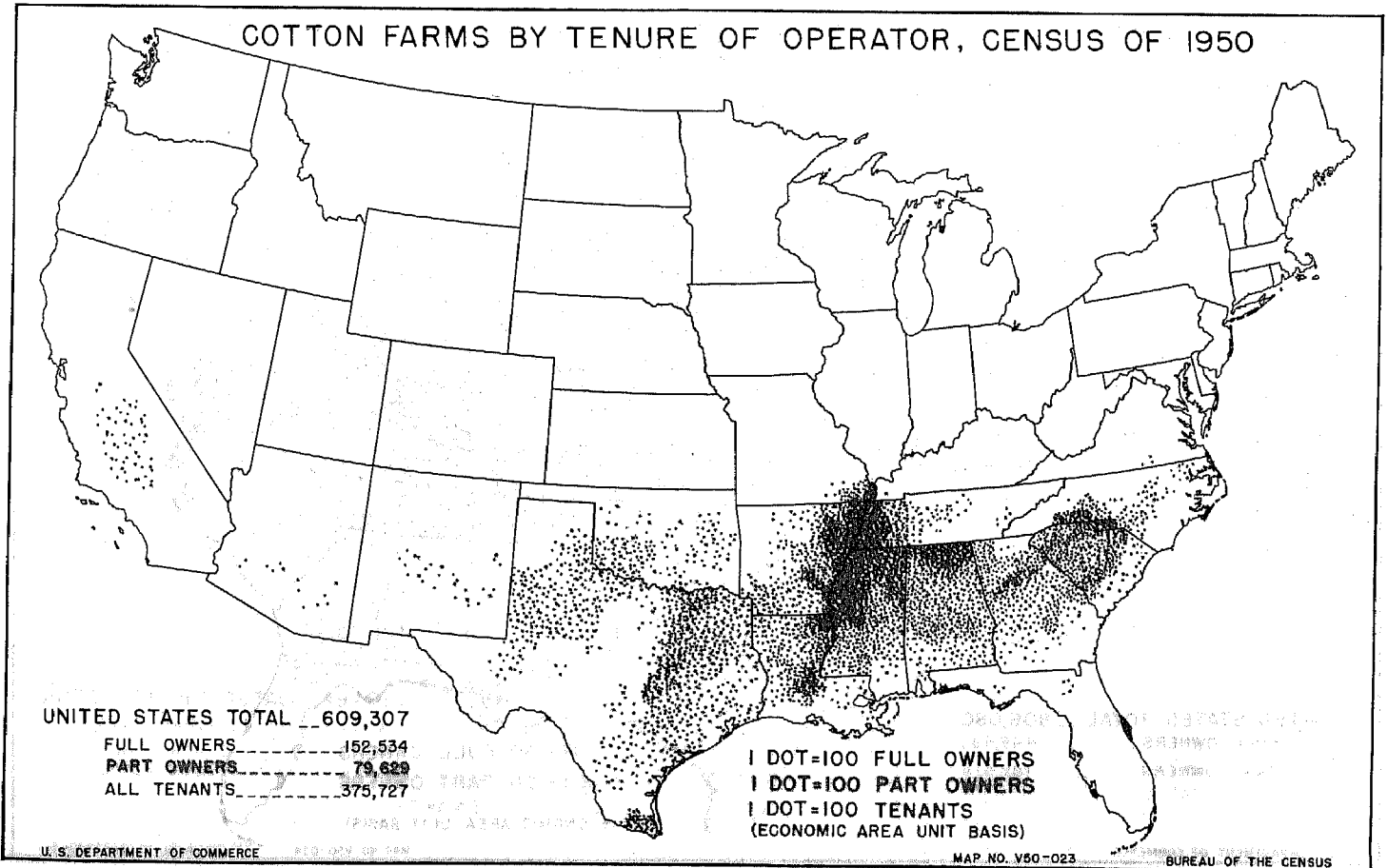
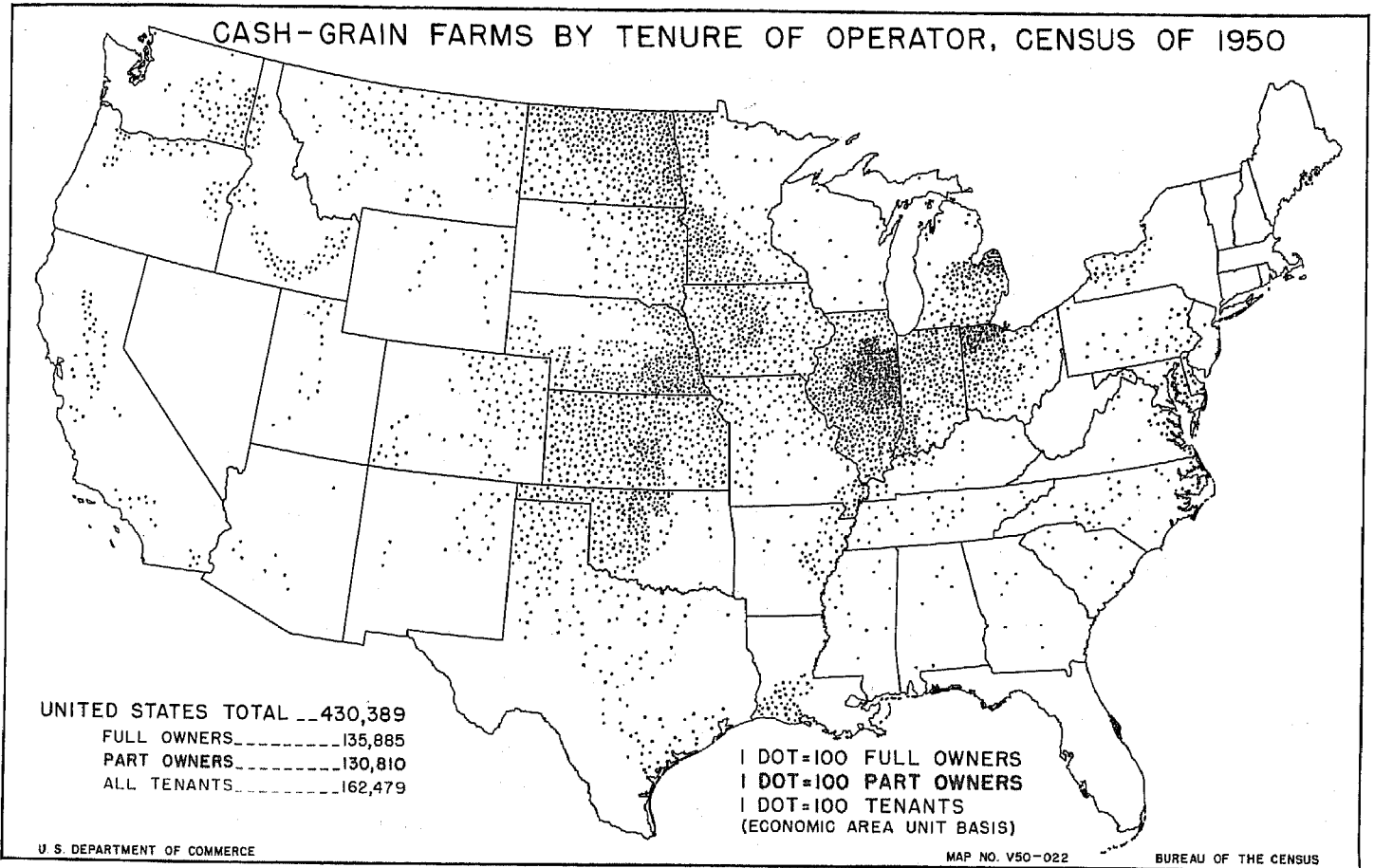
Patterns of land use among the tenure groups are not the same for the four regions, although there were some striking similarities. In the Northeast and in the North Central region full owners had larger acreages of cropland than of pastureland or woodland, while in the South and West, pastureland acreages averaged larger than cropland or woodland. These relationships

were true, in general, throughout the four regions, except all tenants in the South, and even for various classes of tenants, except for four classes in the South and crop-share tenants in the West.

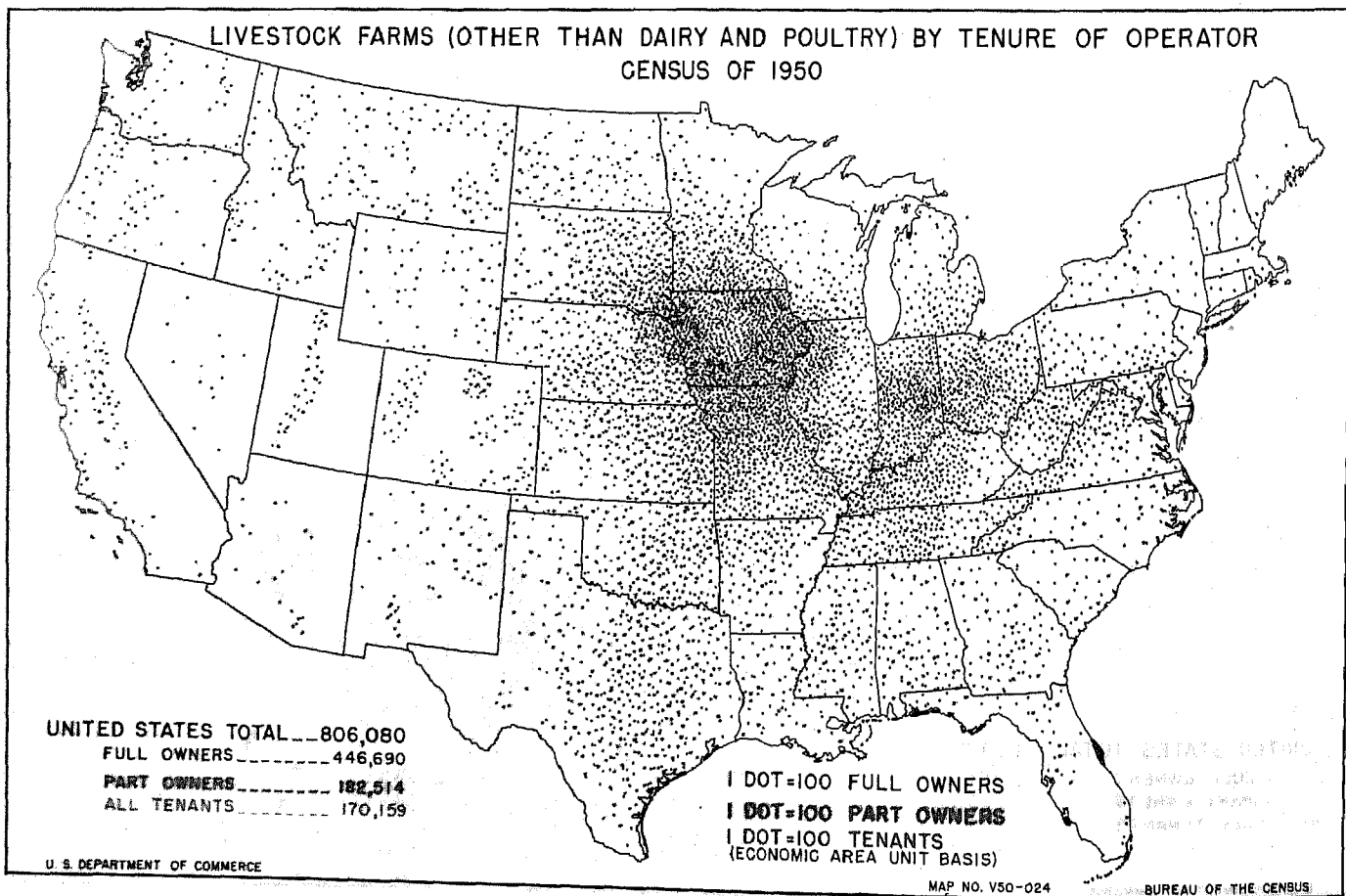
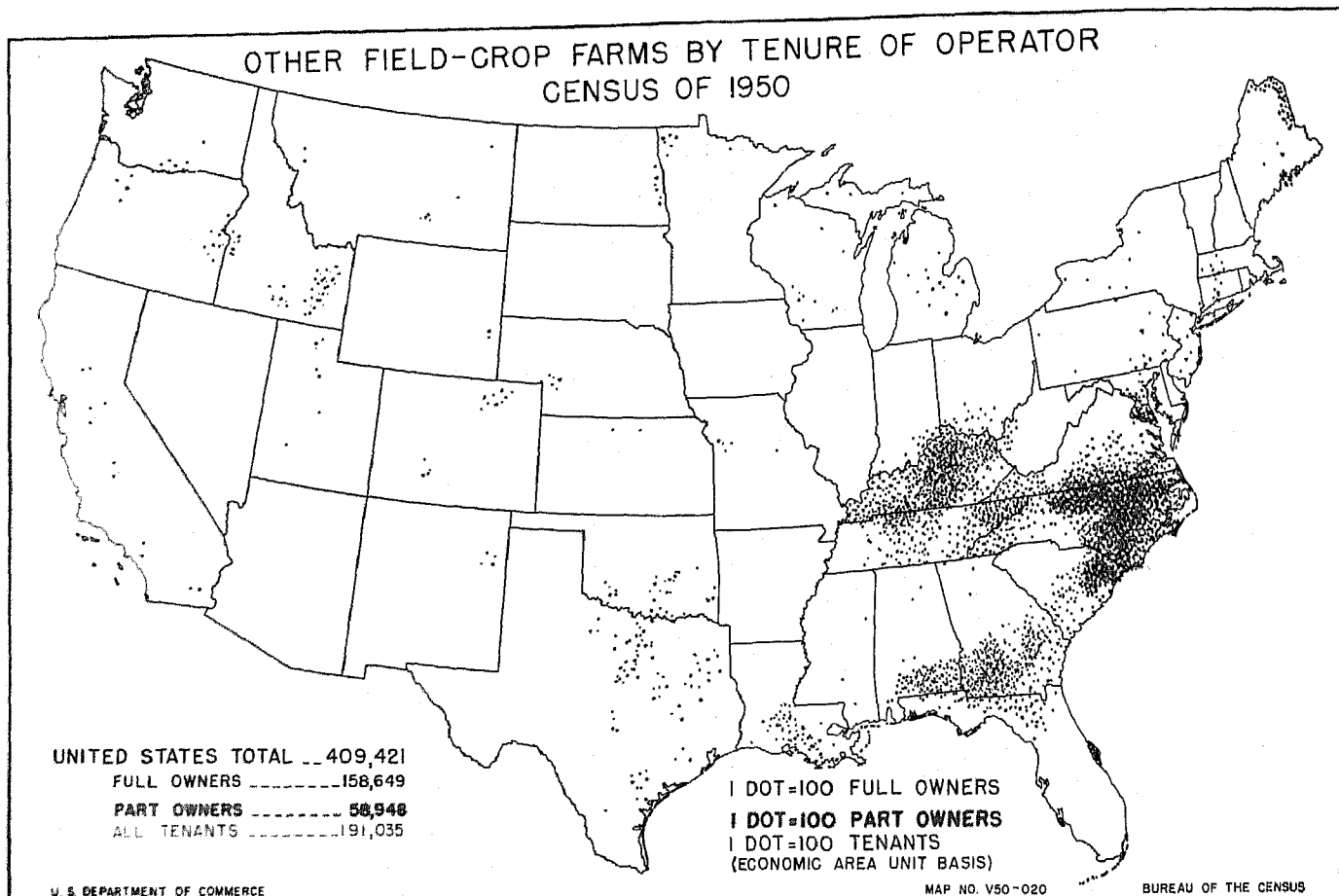
In the Northeast, differences in the average acreages of cropland among the several tenure groups were not as great as in other regions. In fact, all tenure groups and all classes of tenants averaged more than 60 acres and less than 110 acres of cropland. The average acreages of pasture land varied from slightly over 20 acres to more than 80 acres. The range in average acreage of woodland varied from about 15 acres to about 46 acres.

In the North Central region, considerable variability existed in average acreage of cropland per farm—from slightly over 100 acres for full owners to almost 250 acres for part owners. The range for pasture land was even greater—less than 50 acres for crop-share tenants to more than 150 acres for part owners.

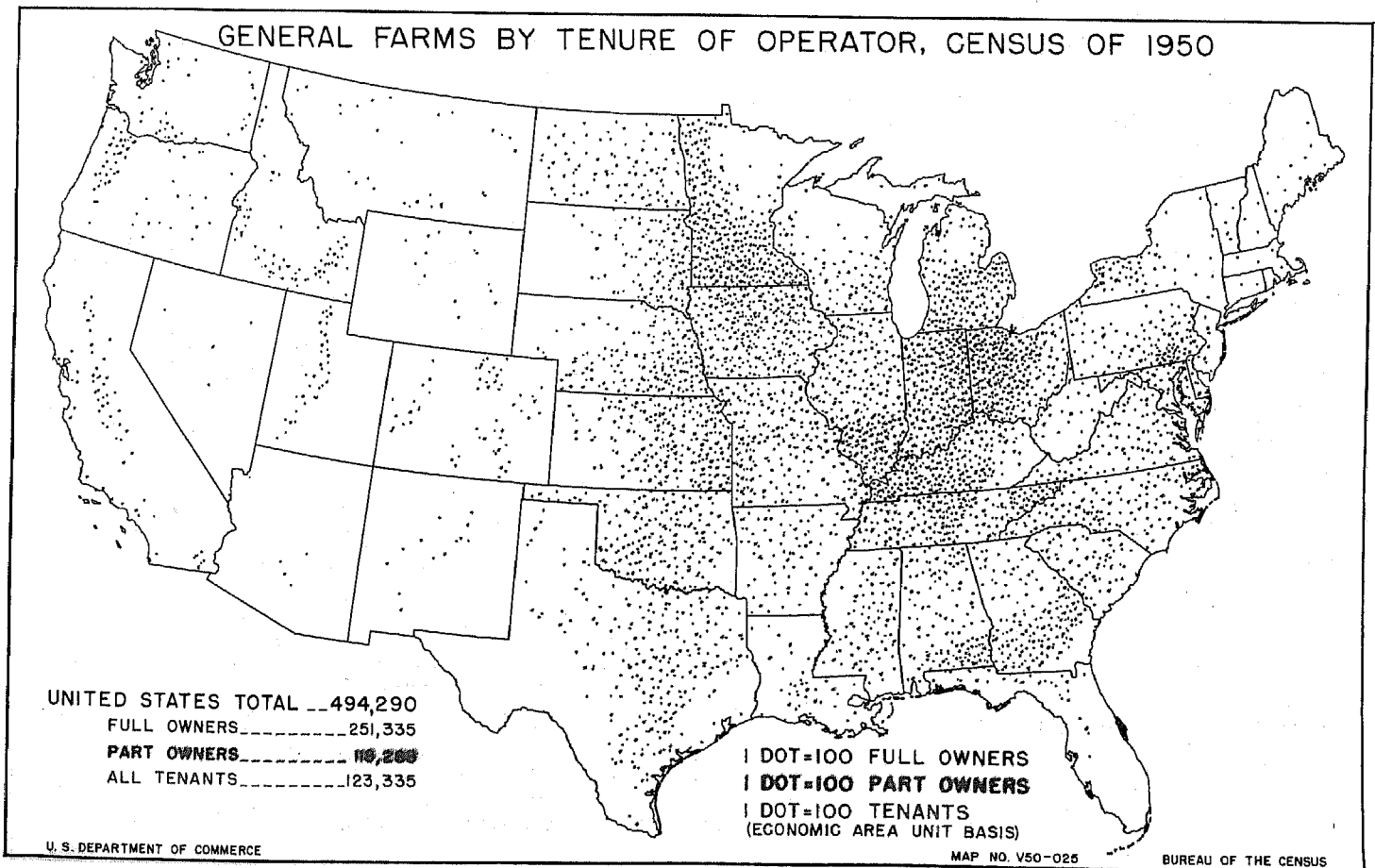
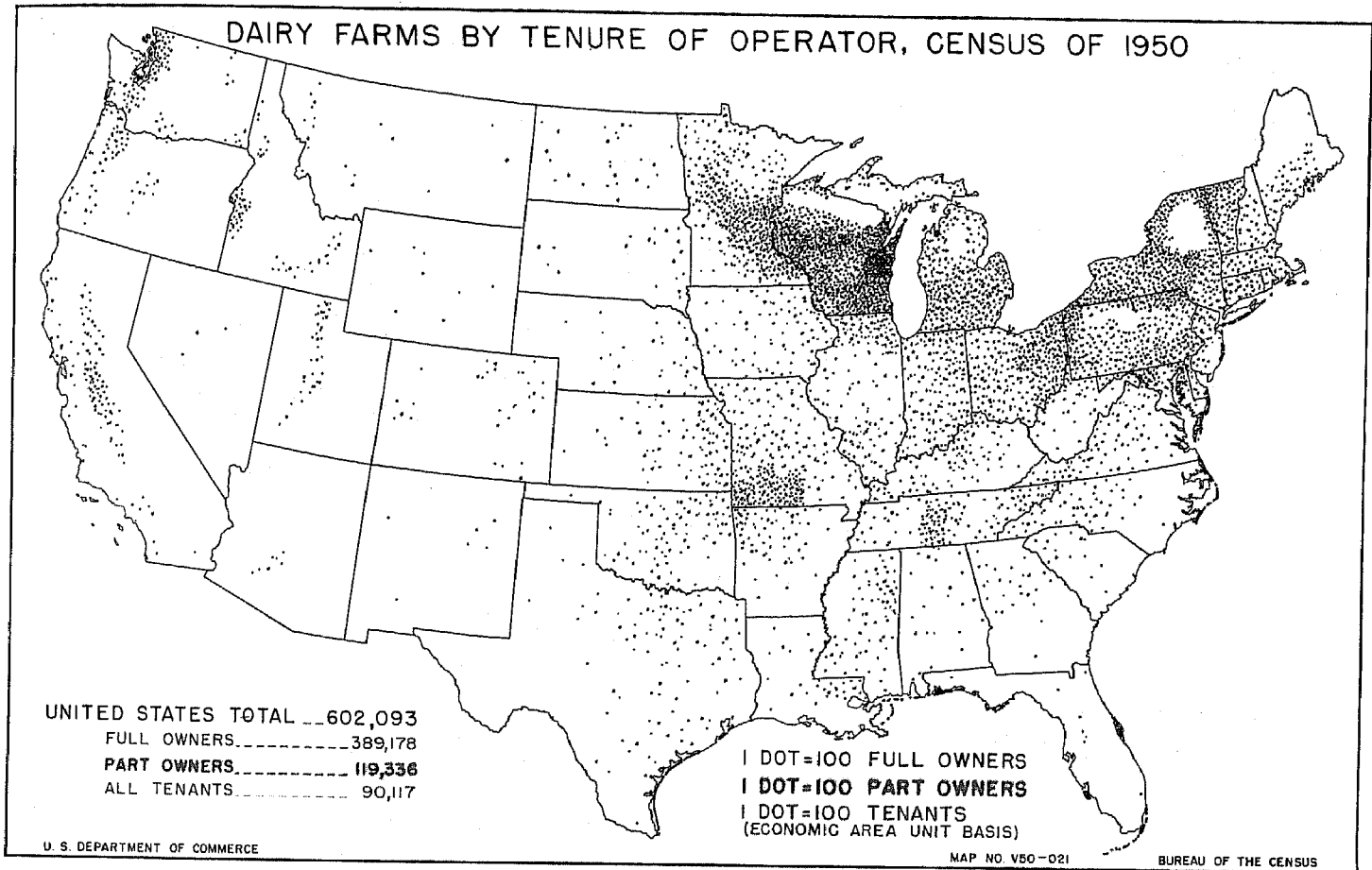
TYPE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES,
CENSUS OF 1950



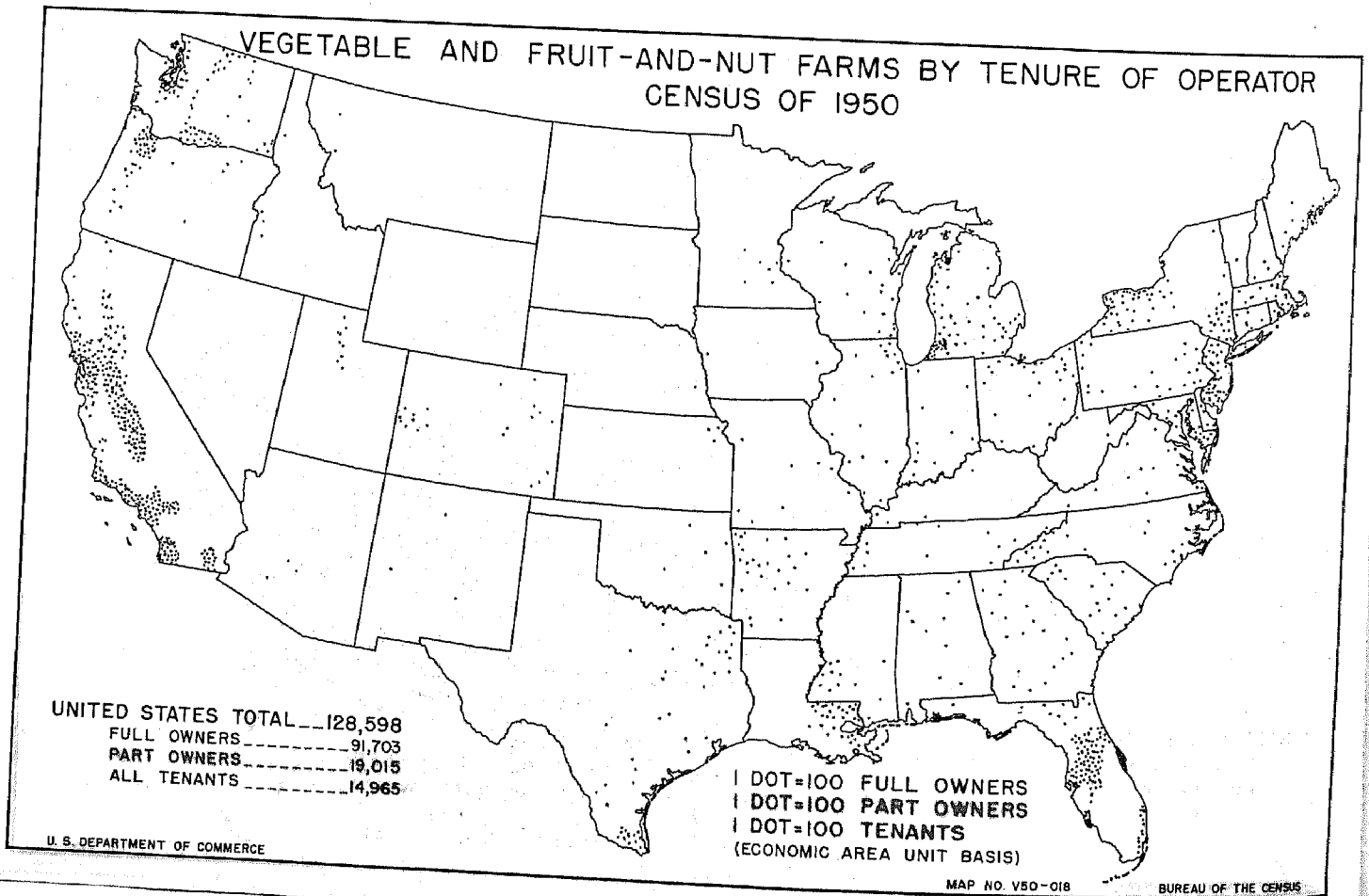
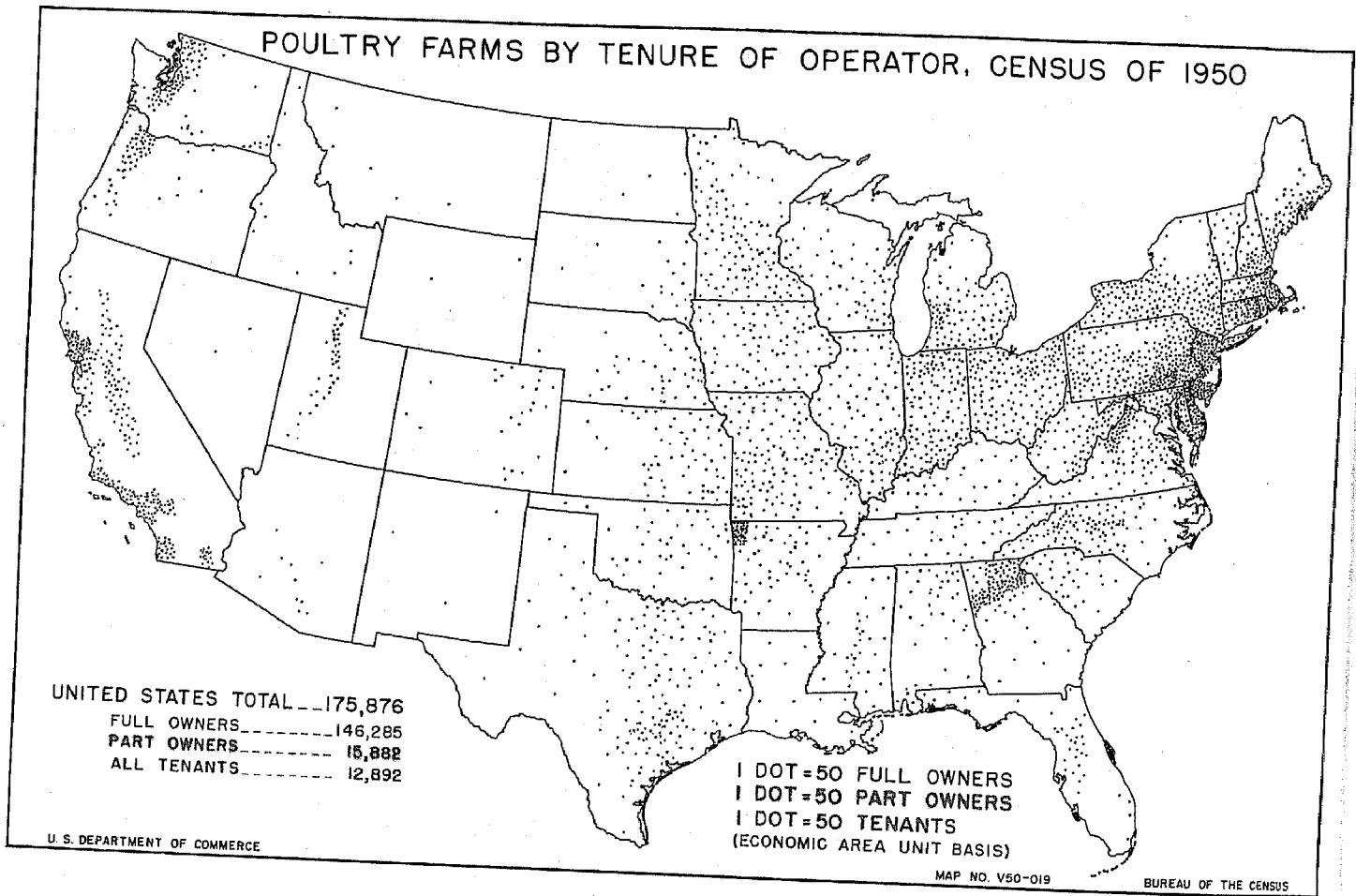
TYPE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES,
CENSUS OF 1950—Continued



TYPE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES,
CENSUS OF 1950—Continued



TYPE OF FARM, BY TENURE OF OPERATOR, FOR THE UNITED STATES,
CENSUS OF 1950—Continued



Types of farms by tenure of operator.—In general, the proportion of farms operated by tenants is greater for those types of farms depending heavily upon crop production. Conversely, the percentage of farms operated by tenants and part owners is relatively low for dairy, poultry, and other livestock farms.

Of the 480,389 cash-grain farms in the United States in 1950, 37.7 percent were operated by tenants and 30.4 percent were operated by part owners. The tenant cash-grain farms were found in the more fertile areas of the Corn Belt with concentration in central Illinois, northwestern Iowa, and eastern Nebraska. Part-owner cash-grain farms were concentrated in the wheat-producing areas of the Great Plains and in the eastern Corn Belt.

Of the 609,307 cotton farms in the United States, 61.7 percent were operated by tenants, 13.1 percent by part owners, and 25.0 percent by full owners. An extremely heavy concentration of tenant cotton farms was found in the fertile Mississippi Delta, with lighter, but important, concentrations in the Coastal Plains. The part-owner cotton farms were more prevalent than tenant units in the western part of the Cotton Belt. The full-owner units were rather uniformly distributed over the cotton-producing area.

Farms classified as "other field-crop" produced primarily tobacco, peanuts, sugarcane, sugar beets, or potatoes. Of the farms of this type, tenants operated 46.7 percent; part owners, 14.4 percent; and full owners, 38.7 percent. Concentrations of other field-crop farms occurred in the flue-cured tobacco areas of Virginia, North Carolina, and South Carolina; the burley area of central Kentucky; and the peanut areas of Georgia and Alabama. Tenancy was most prevalent in the centers of these areas.

Farms classified as livestock farms (other than dairy or poultry) were rather heavily concentrated in the eastern Great Plains and the Corn Belt, with a lighter distribution in the South and the West. Full owners operated 55.4 percent of the farms of this type with part owners operating 22.7 percent and tenants, 21.1 percent.

The distribution of dairy farms differed distinctly from that of

livestock farms with respect to both tenure and geography. In general, dairy farms are situated near urban centers of population. Dairy farms, in 1950, were concentrated in central and eastern Minnesota, Wisconsin, Michigan, eastern Ohio, Pennsylvania, New York, and southwestern Missouri. Dairying requires large capital and labor outlays and a high expectation of security with respect to tenure. This type of farming may be conducted on land less fertile than that required for crop production. In 1950, 15.0 percent of the dairy farms were operated by tenants, 19.8 percent by part owners, and 64.6 percent by full owners. Tenant operations were concentrated in southern Wisconsin and northern Illinois, while in all other areas full owners and part owners predominated.

Of the general farms, 50.9 percent were operated by full owners, 23.9 percent by part owners, and 24.9 percent by tenants. General farms were well distributed over the areas with a high percentage of cropland. Some concentrations existed, however, in the eastern Corn Belt States, Minnesota, and Kentucky.

Poultry farms do not require highly productive land or large amounts of land. Since the value of the land does not figure heavily in the outlay necessary for a poultry operation, a relatively low rate of tenancy could be expected for this type of farming. Also, many poultry producers are financed, in part, by feed dealers and marketers of poultry. In 1950, only 7.3 percent of the poultry farms were operated by tenants, as contrasted with the 83.2 percent operated by full owners. Part owners operated 9.0 percent of the poultry farms. There were no noticeable areas of concentration among tenure types.

Vegetable and fruit-and-nut farms require large labor and capital outlays relative to the amount of land needed. In addition, fruit-and-nut farming requires extreme security with respect to tenure, owing to the time elapsing between tree planting and harvesting of a crop. For these reasons, it could be expected that the percentage of tenant farms of this type might be relatively low. In 1950, 11.6 percent of the farms of these types were operated by tenants; 14.8 percent by part owners; and 71.3 percent by full owners.

PERCENT OF COMMERCIAL FARMS IN EACH TYPE—OF—FARM GROUP, BY TENURE OF OPERATOR, FOR THE UNITED STATES: CENSUS OF 1950

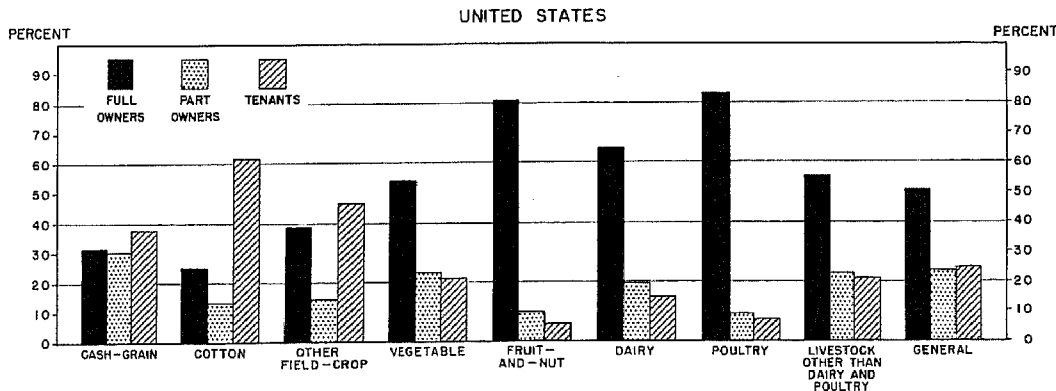


Figure 38

Type of farm.—Although tenants made up only 26.8 percent of all farms, as shown in table 6, they operated almost two-thirds of the cotton farms, almost half of the other field-crop farms (tobacco, peanuts, potatoes, sugarcane, and other miscellaneous crops), and nearly two-fifths of the cash-grain farms. They operated only about one-fifth of the vegetable farms and livestock farms other than dairy and poultry; one-fourth of the general farms; less than one-fifth of the dairy farms; and about one-twentieth of the fruit-and-nut and poultry farms.

Full owners represented 57.4 percent of all farm operators in 1950. In that year more than four-fifths of the fruit-and-nut and poultry farms, about two-thirds of the dairy farms, and more than one-half of the vegetable, livestock, and general farms were operated by full owners.

Part owners, who represented 15.3 percent of all farm operators, operated 30.4 percent of all cash-grain farms, 23.9 percent of all general farms, 23.4 percent of all vegetable farms, and 22.7 percent of all livestock farms other than dairy and poultry. Only 9.0 percent of the poultry farms and 9.9 percent of the fruit-and-nut farms were operated by this tenure group. In many respects, part owners and tenants follow the same general patterns as to type of farming, except for cotton and other field-crop farms. For these latter types, the proportions of tenant farmers were much larger than those for part owners.

Table 6.—PERCENT DISTRIBUTION OF COMMERCIAL FARMS IN EACH TYPE-OF-FARM GROUP, BY TENURE OF OPERATOR, FOR THE UNITED STATES: CENSUS OF 1950

[Data are based on reports for only a sample of farms]

Type of farm	Percent in each tenure			Percent of all commercial farms
	Full owners	Part owners	Tenants	
All commercial farms.....	57.4	15.3	26.8	100.0
Cash-grain.....	31.6	30.4	37.7	11.6
Cotton.....	25.0	13.1	61.7	16.4
Other field-crop.....	38.7	14.4	46.7	11.0
Vegetable.....	54.1	23.4	21.5	1.3
Fruit-and-nut.....	81.0	9.9	6.1	2.2
Dairy.....	64.6	19.8	15.0	16.2
Poultry.....	83.2	9.0	7.3	4.7
Livestock other than dairy and poultry.....	55.4	22.7	21.1	21.7
General.....	50.9	23.9	24.9	13.3
Miscellaneous.....	80.9	9.6	7.4	1.4

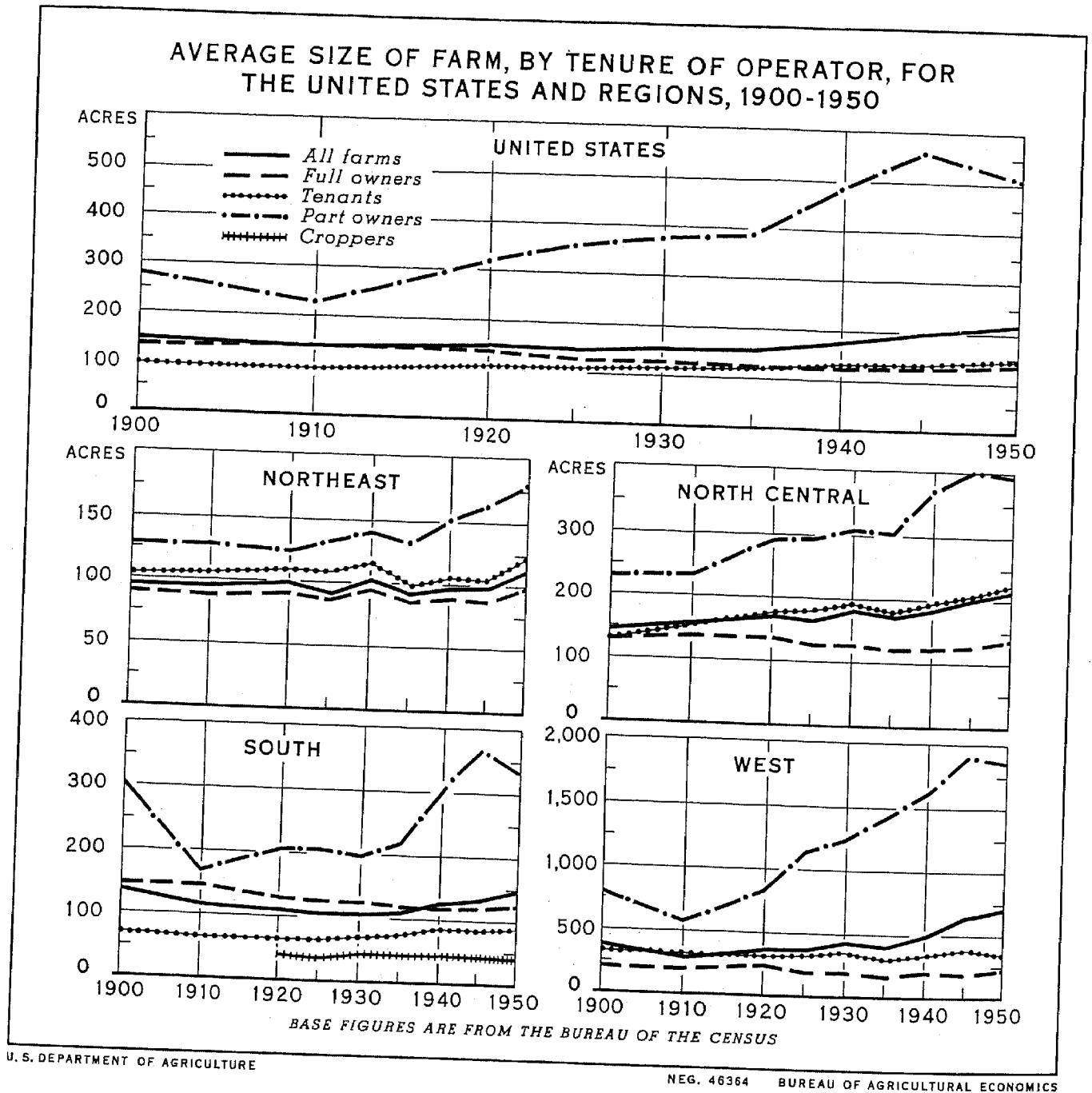


Figure 39

Size of farm.—Average farm size in the United States has increased fairly rapidly since 1935. Prior to 1935 the average size remained relatively constant with a slight upward trend. Since 1900, the average farm size has increased by nearly a half, or 47.4 percent. In terms of area, the average size was 146.2 acres in 1900 and 215.3 acres in 1950. Most of this increase has occurred since 1940 when the average farm size was 174.0 acres, the 1950 average being 23.9 percent greater.

In recent years several factors have contributed toward increasing average farm size. From 1940 to 1950, land in farms increased from 1,060,852,374 acres to 1,158,565,852 acres. The net increase in the gross farm area has resulted, in part, from higher commodity prices which brought into use some land which was marginal in the 1930 to 1940 period. Public land formerly used under permit was brought into farms as leased land. In the South, an increasing proportion of woodland has been included as farm land through improved methods of enumeration, such as the use of the landlord-tenant operations questionnaire in recording the holdings of landlords whose land represented two or more census farms. In the West, relatively

small areas of land not previously included as farm land have been brought into agricultural use by irrigation. These increases were partially offset by losses of farm land in industrial and mining areas where the small agricultural operations have been reduced or discontinued.

The most important factor in increasing the average size of farm has been the reduction in the number of farms. This reduction has taken place as a result of consolidation of holdings, curtailment of agricultural operations in areas of great opportunity for nonfarm employment, and the change in 1950 of the definition of a farm.

For the United States, the increase in size of farms from 1900 to 1950 occurred in the farms of tenants and part owners. The average size of part-owner farms increased from a low of 225.0 acres in 1910 to 562.1 acres in 1945 and 506.0 acres in 1950. The average size of tenant farms increased from 96.3 acres in 1900 to 146.8 acres in 1950, an increase of 52.8 percent. The change in the size of full-owner farms has been insignificant, increasing from 134.7 to 135.6 acres.

PERCENT OF COMMERCIAL FARMS IN EACH SIZE-OF-FARM GROUP, BY TENURE OF OPERATOR, FOR THE UNITED STATES, REGIONS, AND SELECTED STATES: 1950

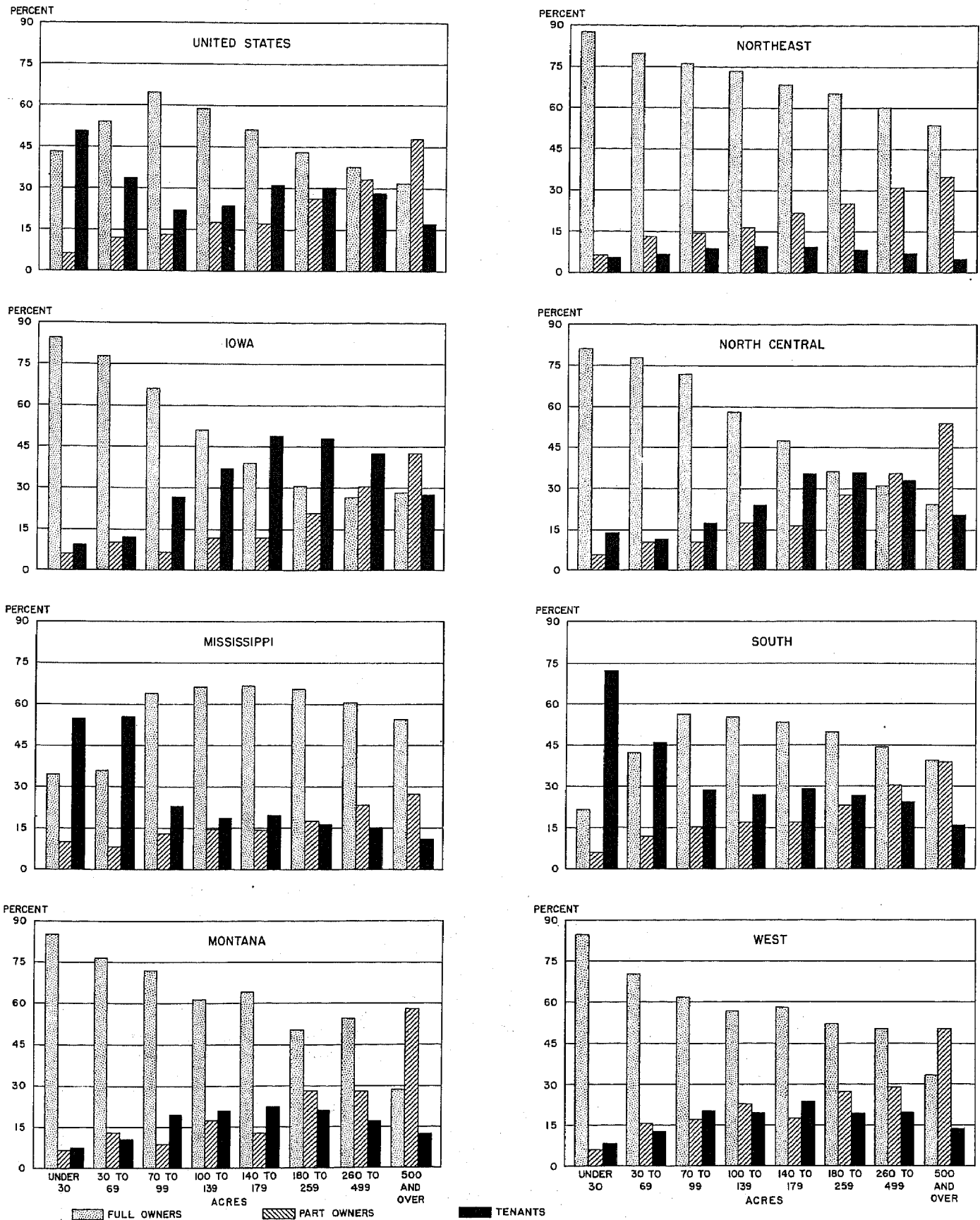


Figure 40

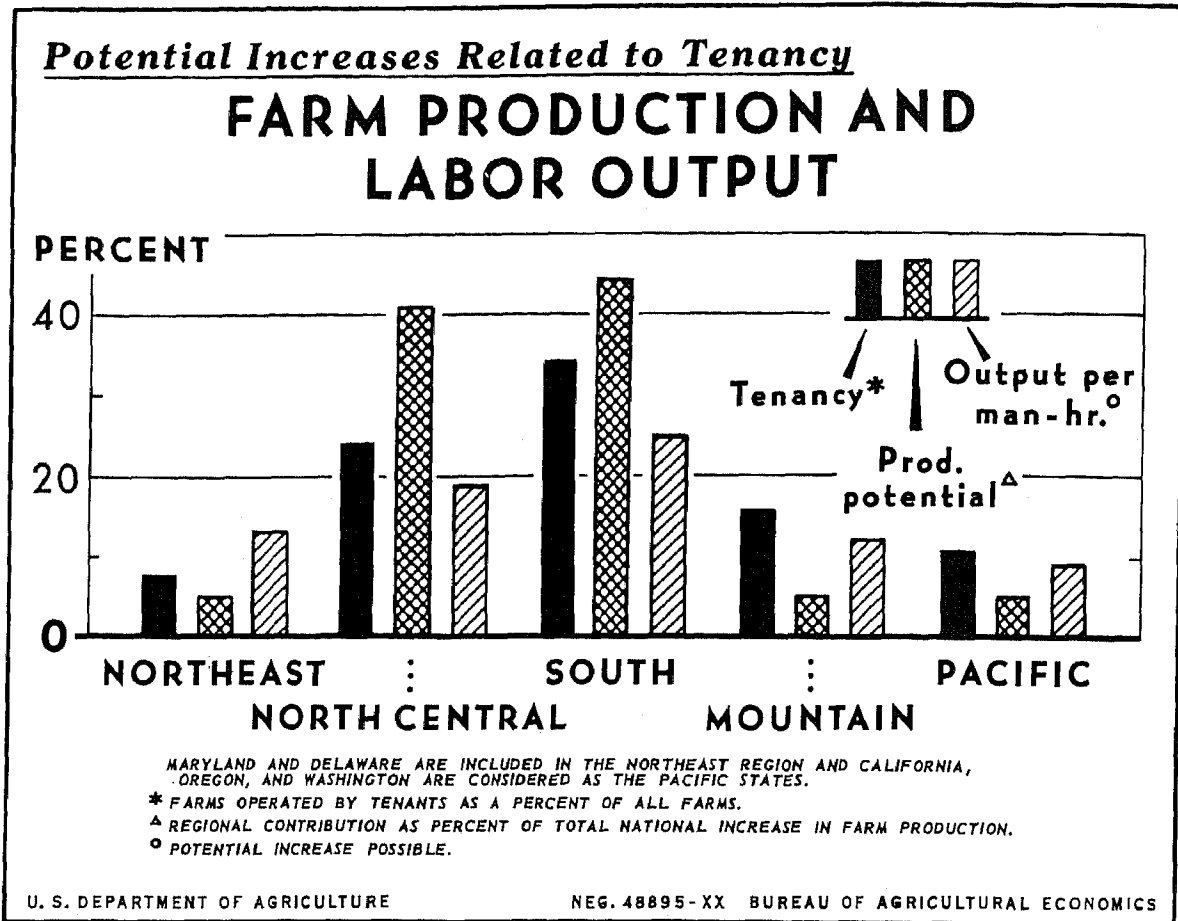


Figure 41

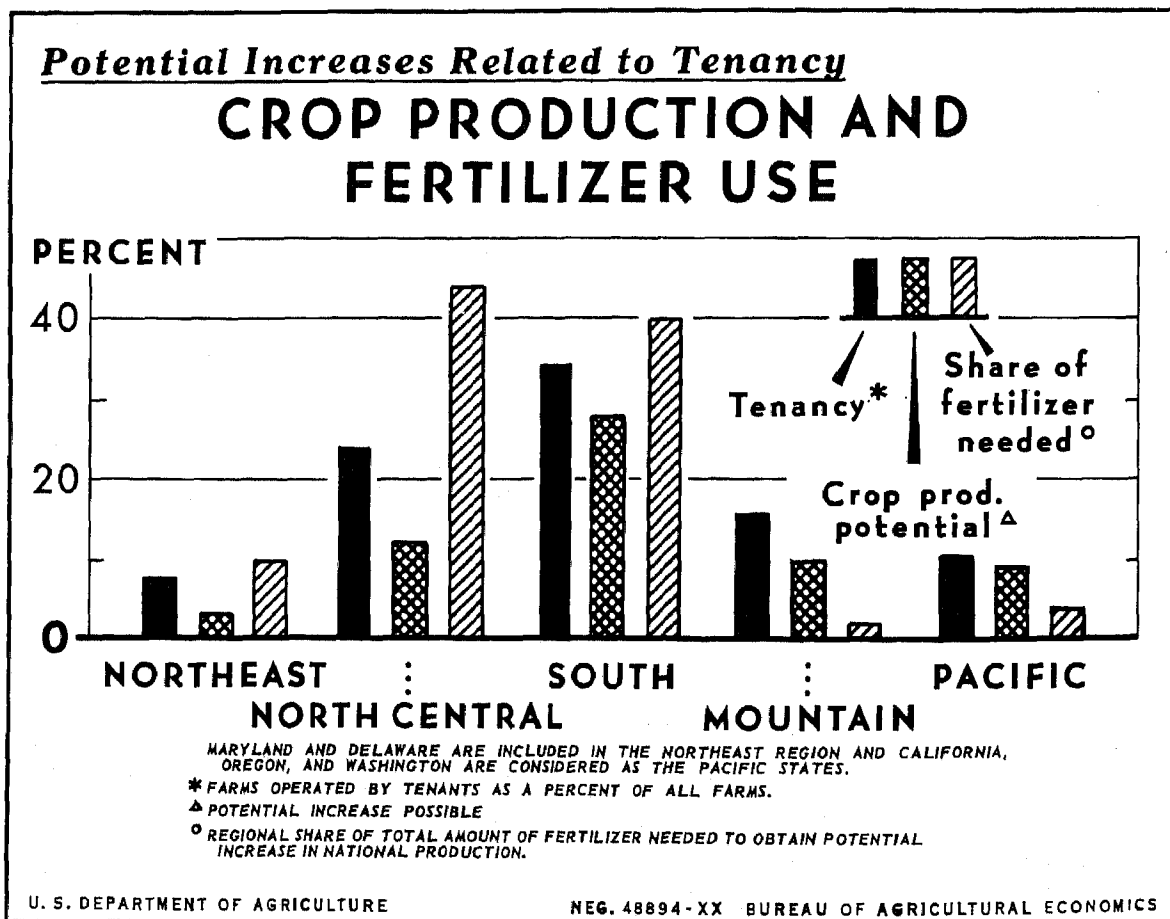


Figure 42

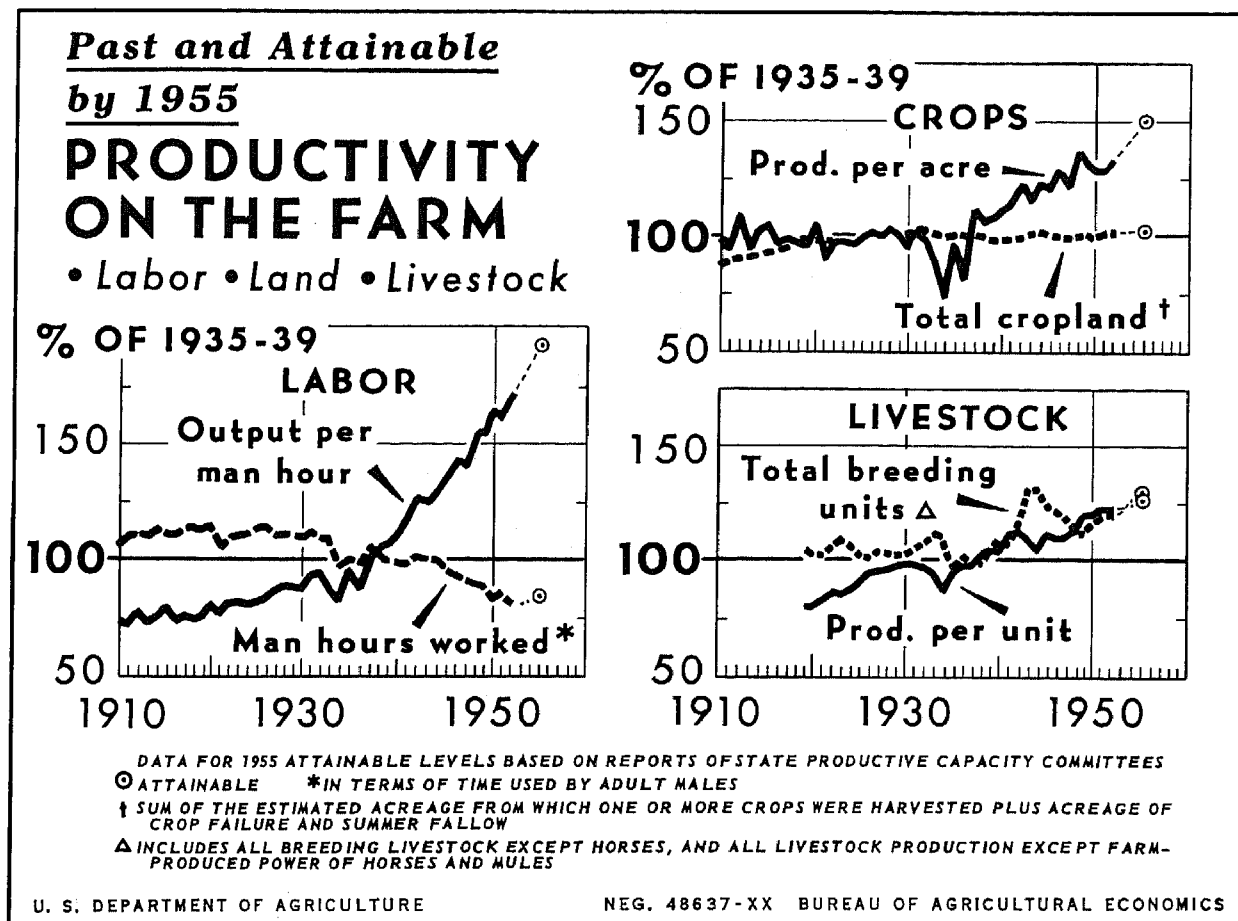


Figure 43

Relation of tenancy to farm production.—Within the past 300 years, the population of the United States has increased from a few people, other than the native Indians, to 150,697,361 people. The demand for food and fiber for this rapidly expanding population has been met and usually has been exceeded. The supply of food and fiber was increased first by the westward movement of labor and capital and the opening of new lands. When new lands became scarce, the food and fiber supply was expanded by a more effective utilization of labor and land through mechanization and technological advancements in the fields of crop and livestock production.

The end of increasing demand upon the agricultural plant is not in sight. Students of population have estimated that the 1960 population will be at least 165,200,000 and may be as high as 179,800,000. In addition to its own people, the United States, in periods of emergency such as war or famine, has undertaken the feeding of large numbers of people in foreign countries.

Potential increases.—A survey of the agricultural plant and its potential productive capacity was completed by the United States Department of Agriculture and the Land-Grant Colleges in 1952. It was estimated by the committee responsible for the survey that, with the use of 3 percent more cropland (which was idle in 1951) and 2 percent more man-hours of labor, the total farm output in 1955 could be 21 percent more than in 1950 (fig. 43). Contributing

to this increase would be a 20 percent increase in crop production, a 20 percent increase in livestock production for human consumption, and a 30 percent reduction in farm-produced power that would release some feed grains for other uses.

The larger part of the increase in farm output, as shown by the survey, would come from the regions with the highest proportions of tenancy (figs. 9 and 10). The Northeast, the Mountain, and the Pacific States would each contribute 5 percent, or a total of 15 percent of the increase in national farm output. In these areas, the percentage of farms that are rented is relatively low, being 6.8 for the Northeast, 16.0 percent for the Mountain States, and 10.6 percent for the Pacific States. The North Central and the Southern States would make the major contributions to the increase in output, the contributions being 41 and 44 percent, respectively. In the North Central States 24.2 percent, and in the South 34.1 percent, of the farms are operated by tenants.

Labor output.—As the increase in output would require only a slight increase in the number of man-hours, a substantial increase in output per man-hour would be required. Again, the potential increase is largest in the area of highest tenancy. In the North Central and the Southern States, the output per man-hour could be increased 19 and 25 percent, respectively; while in the Northeastern, Mountain, and Pacific States, respective increases of 13, 12, and 9 percent are possible (fig. 41).

Increases in crop production and fertilizer use.—The increased production of crops, both food and feed, is an important part of the increase in total production. The larger increases in crop production are possible in the highest tenancy areas (fig. 42), the North Central States and the South, where crop production per acre may be increased 12 and 28 percent, respectively. In the Northeast, Mountain, and Pacific States, respective crop increases of 3, 9, and 10 percent are possible.

The increase in crop production would require the use of additional fertilizer and machinery. The United States Department of Agriculture and Land-Grant Colleges estimated that, in order to fully utilize the cropland and manpower available, 70 percent more fertilizer would be required than was used in 1950. The North Central region would use 44 percent, and the South, 40 percent of the additional fertilizer. Thus, 84 percent of the increase would be used in the areas of high tenancy. The Northeast would use 10 percent of the increase; the Mountain States, 2 percent; and the Pacific States, 4 percent.

Conditions are usually present that prevent the farmer who rents his land from being as responsive to price and cost changes as the farmer who owns his land. These conditions arise from the dissociation of individual cost and return items (1) between the landlord and tenant and (2) between points in time. Under most share-leasing systems, some costs are borne by one individual while the benefits of these expenditures are shared with

the other person. Under these circumstances, a person responsible for the entire cost of an input, for example, fertilizer, cannot be expected to use as much of the input item as he would if he received the total benefit. On the other hand, if the parties to the lease share the costs in the same ratio as the returns are shared, the economic incentive would exist to use as many input items on rented farms as on owned farms, ignoring the time factor.

Considering the dissociation of individual cost and return items through time, an input, such as lime, requires a large initial outlay and continues to yield benefits for several years. This is also true of inputs such as fencing, water control, permanent buildings, pasture-improvement programs, adoption of systems of crop rotations, and the seeding of legumes as an aid to crop and livestock production. Tenant farmers cannot be expected to maximize the use of such inputs, or to cooperate extensively in such programs, if they cannot expect to stay on the farm long enough to realize a reasonably full return.

The average length of occupancy of rented farms was six years in 1950. For many farms the average length of tenure would be much lower. Unless greater stability is attained, tenants may not be expected to make investments from which a substantial portion of the returns will be deferred for six or more years. Thus, while a potential increase of 20 percent or more in farm production is possible, farm tenancy may offer an obstacle to the attainment of maximum production.