# INTRODUCTION

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## **MULTIPLE-UNIT-OPERATIONS**

### INTRODUCTION

The landholdings of many landlords comprise two or more farms according to the Census Bureau definition of a farm. If a landlord has two or more share croppers or other classes of tenants, the portion operated by each is considered a separate farm. Likewise, if a portion is retained by the landlord for his own use, that is a separate farm.

In the South, many landlords having two or more farms, as defined by the Census, think of all of their landholdings as representing one operational unit. This may be because the landlord follows an over-all rotation practice for the cropland; because of a community use of the pastureland by livestock of the landlord and tenants; because of the joint use of machinery and work stock owned by the landlord; or because of other joint ventures such as the purchase of, or sharing in the cost of, fertilizer, feed, seed, and other supplies. The conception that all of his land comprises one operational unit is given support if he supervises the activities of his tenants, especially the seeding. cultivating, or harvesting. If the landlord makes the decisions in respect to marketing the crops, even though he has only a part interest in them, he has stronger reasons for thinking of all of his land as one unit. Thus, an operational unit which usually does not, in the mind of the landlord, coincide with the Census definition of a farm, is one in which the landlord or operator provides the capital and management and the tenant provides the labor in carrying on the farming operations. In most cases, such tenants are share croppers. This type of operational unit is not widely found outside the South, except possibly in a limited number of father-son operations which have been generally accepted as representing separate farms.

Even in the South there is a great variation among States, and counties within a State, in the frequency of occurrence of operational units which might be thought of as not coinciding with the concept of a Census-defined farm. The differences in application of the terms "operational unit" and "Census-defined farm" are most pronounced in cotton- and tobacco-growing areas. Among individual landlords, contributions to production costs, whether in capital or management, may vary greatly for their respective tenants. A landlord may rent land to one or more tenants for cash and not concern himself at all with the cropping operations; or, he may rent on shares to tenants who furnish their own work stock or tractor power. Some of these tenants who are financially able to bear all production costs, except possibly the acquiring of the land, may be given no supervision; others may be given limited supervision. The landlord may also have other tenants who need to be supervised closely and who are not financially able to assume costs of production. These tenants may be share croppers.

The concept of an operational unit which differs from a Census-defined farm is more difficult to establish for general and comparable application than the farm concept. Field tests indicate that subjective criteria regarding the operational unit, such as the amount of supervision exercised by the landlord over the farming operations and over the marketing of the crops, cannot be effectively applied. On the other hand, objective criteria, such as the furnishing of work animals and/or tractor power by the landlord and the kind of rent paid, can be more easily understood and applied. For convenience, operational units not corresponding to farms have been termed "multiple-unit operations" or "multiple units." (See "Definitions and explanations.")

The multiple-unit type of operation was largely an outgrowth of the change-over from slavery to "freedmen" and the rehabilitation of soldiers following the Civil War. This arrangement, growing out of the conditions following the war, permitted the landowner and workers to continue to farm the same land resources. The former slaves, with little opportunity for earning a livelihood except on the land of their former owners or that of nearby owners, continued to look to the plantation owner for direction and subsistence. With neither funds nor credit for paying a cash wage, the plantation owner paid his workers a part of the crop.

After the Civil War, the multiple-unit type of operation soon became common throughout much of the Old South, with landlords employing white as well as Negro tenants. Under the multiple-unit system, the landowner provided the land, management, work stock, and equipment. The worker or tenant provided the labor, his own and that of his family. The landlord made advances to the worker for food and other items. Cash expenditures for production were shared equally, the tenant's share being paid for by the landlord and representing an advance against the tenant's share of the crop. The crop was shared equally, the landlord deducting from the tenant's share all advances made against the crop.

Multiple-unit operations are closely associated with the production of cotton and tobacco. Because of their high labor requirements, these crops are well suited to this type of operation. It is not necessary for the landlord to risk the large amounts of capital which would be required under a wage system. Risks of production are shared by the tenants. The landlord, through his management and close supervision of the tenants, can exercise control over farming practices. Handling the entire landholding as one management unit permits some economies of large-scale operation which would not be possible if each tenant operated independently. Sharing in the proceeds from the crop, the tenant is less likely to leave before the crop is completed. Workers without funds or managerial experience to set themselves up as independent farm operators, can engage in farming, sharing in the proceeds from their labor in the same manner as independent tenants.

History of census enumeration of multiple units.—For Census purposes, each tenant operation always has been considered a separate farm. Therefore, it was but natural that, beginning with the first census following the Civil War, that of 1870, each portion of a plantation occupied by the former slaves should be considered a separate farm.

Statistics for larger operational units in the South were not obtained until the Census of 1910. In that census, the statistics for farms, as defined by the Census, were supplemented by special statistics for plantations.

In the following census of agriculture, that of 1920, there was no special enumeration of plantations or multiple units as such. However, the reports for that census presented separately, for the first time, a classification of tenants which has been closely associated with the plantation or multiple-unit type of operation. These tenants were designated as croppers and were described in the reports for that census as being under a greater degree of supervision by the landlord than regular share tenants However, as a convenient means of classification, croppers were defined as share tenants to whom the landlord furnished the necessary work stock. Croppers have been included in the tenure classification for each agricultural census since 1920.

No further attempt to enumerate plantations or multiple units as operational units was made until 1940 when special plantation reports were obtained during the enumeration. In 1945, there was again an enumeration of "multiple-unit operations." A presentation of the criteria used in the various censuses for enumerating operational units larger than farms and a discussion of the comparability of the data are given later herein under the title "Multiple-unit statistics for prior censuses."

Problems of enumeration of multiple-unit operations.-The multiple-unit type of operation has been extremely difficult to define and to enumerate. Its very existence has also made it difficult to obtain accurate totals for the various items in the agricultural censuses for tracts defined as farms. In an enumeration restricted to farms, a multiple-unit operator, in answering the questions of the enumerator, may (1) correctly report only for those crops grown on land not assigned to tenants and for livestock and equipment kept on the land retained; or (2) incorrectly include his part of the crops grown for him on shares, and the work animals and equipment furnished to and kept by his tenants: or (3) incorrectly report all crops, livestock, and equipment for all the land under his charge. His tenants, on the other hand, may (1) correctly report for the crops they grew and the livestock and equipment kept on the land assigned them; or (2) incorrectly report only their share of the crops and the livestock and equipment they own; or (3) fail to report any of their operations, assuming these will be included in the landlord's report. Changes in tenant operators and changes in the land assigned to the tenants between the end of a crop year and the time of the census enumeration add to the difficulty. Because of differences in the Census definition of a farm and the local concept of the term "farm;" the Census enumerator may obtain a return for the landlord only, overlooking, or unaware of, the tenant status of the workers on the land.

The problem of obtaining accurate totals for geographic areas in which the multiple-unit operations exist has been mentioned in many of the Census reports beginning with that of 1870. The difficulty of this approach has been described in the reports of the 1870 and subsequent censuses of agriculture. The 1870 report states, "The plantations of the old slave States are squatted all over by the former slaves, who hold small portions of the soil, often very loosely determined as to extent, under almost all varieties of tenure. In the instructions . . . efforts were made to impose something like a rule which should govern in the returns . . . but after a weary and unprofitable struggle, the superintendent was fain to accept whatever could be obtained . . . without greatly criticising the form in which it came." (Ninth Census of the United States, 1870, Industry and Wealth, p. 72.)

Special instructions and procedures for the enumeration of farms in the South have been used at the various censuses in an attempt to prevent duplications and omissions. Usually, the instructions have suggested that the enumerator go first to the landlord to get all the required information regarding the farm operations for the home farm and for each tenant. Such a procedure was designed to provide for counting all of the land, crops. and owner's livestock once and only once. After the enumerator's visit to the landlord, he was instructed to visit each tenant on that landholding in order to obtain other necessary information, such as operator characteristics, livestock owned by tenant, etc. In addition to the problems arising from the considerable amount of shifting in tenant operators and in the acreage assigned to tenants, there are other problems for an enumerator. He cannot always follow a fixed procedure. A landlord may not live in the enumerator's assigned area, or may not be located conveniently. A portion of the land operated by tenants on a large landholding may not be in the enumerator's district. In the latter case, another enumerator must be charged with the responsibility of securing the reports for those tenants outside the first enumerator's district.

Not only has it been difficult to obtain accurate totals, but also, the data obtained have not been adequate to indicate the characteristics and functioning of the larger operational units. On multiple units, part or all of the farm implements and machinery and domestic animals used by the tenants are owned by the landlord and may or may not be in the possession of the individual tenants. Expenditures made by the landlord for his tenants may be included in the report for the landlord. No crops, or only feed crops, may be grown on land retained by the landlord. The pastureland, woodland, wasteland, etc., which normally would be associated with the cropland, may all be retained by the landlord. Thus, when the separate tenant operations and land not assigned to tenants are enumerated as individual farms, the separate reports do not represent complete units. Therefore, in the various classifications of farms by size, by tenure, by type, by economic class, or by any other grouping, the totals for some of the items may be distorted for particular groups. This makes comparisons of totals for one item with another difficult to interpret, or such comparisons may lead to an incorrect interpretation.

Changes in the number of Census-defined farms in the South from census to census do not reflect fully similar or corresponding changes in the number of operating units. Workers paid a share of the crop one year may be paid a cash wage in another year, or the multiple-unit operator, in adjusting his crop acreages, may increase or decrease the number of his tenants. Thus, changes in the number of farms and of cropper farms reflect, in part, changes in the methods of operation of multiple units, as well as changes in the number of multiple units, and changes in the number of farms not associated with multiple units.

The statistics for multiple units or plantations for the 1945, 1940, and 1910 censuses were prepared for the purpose of supplementing the basic reports of the Census of Agriculture in order to indicate more fully the picture of the organization of southern agriculture. However, differences in definitions and procedures, and in the counties included have made comparisons of the data for these years and the measuring of changes difficult.

Differences in definitions and procedures have resulted from lack of information as to the wide variations in the organization and degree of management in the multiple-unit type of landlord holdings. The degree of supervision has varied widely from landlord to landlord and among tenants for the same landlord. There has been no sharp distinction between the multiple-unit type of operation and other landlord-tenant operations. Consequently, there have been varied opinions as to just what should constitute a multiple unit.

As stated previously, the concept of an operational unit at the plantation or multiple-unit level is more difficult to establish for general and comparable application than the farm concept. Consequently, many landlord holdings conforming to the intent of the definitions were not enumerated as plantations or multiple units. At each of these censuses it was necessary to assemble or construct in the Washington office, from the reports of the individual tenants and from the report of the landlord, plantation or multiple-unit reports for those plantations or multiple units which were missed in the enumeration. The accompanying table gives the number of reports for each census which were obtained by the Census enumerator, and the number which were office-constructed.

Number of Multiple--unit or Plantation Reports Enumerated and Office-Constructed for Areas Selected for Study, by States: Censuses of 1950, 1945, 1940, and 1910

[Areas included and definitions are not comparable for the different census years]

	Multiple-unit reports, 1950 (902 selected counties)			Multiple-unit reports, 1945 (567 selected counties)			Plantation reports, 1940 (372 selected counties)			Plantation reports, 1910 (325 selected counties)		
State	Total	Enumer- erated	Office-con- structed	Total	Enumer- ated	Office-con- structed	Total	Enumer- ated	Office-con- structed	Total	Enumer- ated	Office-con- structed
Selected areas, total	147, 829	135, 806	12, 023	141, 316	103, 489	37,827	21, 751	12, 520	9, 231	39,073	22, 157	16, 916
Selected areas in— Alabama Arkansas Florida Georgia Kentucky	12, 660 7, 622 793 19, 227 12, 536	11, 720 6, 686 713 17, 631 11, 961	940 936 80 1,596 575	15, 431 9, 098 (¹) 26, 610 (¹)	8, 089 7, 201 (1) 18, 484 (1)	7, 342 1, 897 (1) 8, 126 (1)	1, 558 2, 665 (1) 2, 326 (1)	499 1, 759 (1) 1, 056 (1)	1, 059 906 (¹) 1, 270	7, 287 2, 674 84 6, 627	(*) (*) (*) (*) (1)	(°) (°) (°)
Louisiana Maryland Missisippi Missouri North Carolina	5, 244 388 20, 904 1, 981 25, 252	4, 651 347 19, 393 1, 747 22, 695	593 41 1, 511 234 2, 557	8, 065 (1) 28, 386 2, 194 27, 579	6, 242 (1) 25, 248 1, 723 17, 501	1, 823 (1) 3, 138 471 10, 078	2, 531 (1) 7, 275 343 2, 279	1, 724 (1) 5, 410 204 450	807 (¹) 1, 865 139 1, 829	2, 480 (1) 7, 960 (1) 1, 775	(*) (1) (*) (1) (*)	(*) (0) (*) (1) (*)
South Carolina Tennessee Texas Virginia	13, 739 15, 895 6, 122 5, 466	12, 577 14, 953 5, 668 5, 064	1, 162 942 454 402	20, 201 (1) (1) 3, 752	18, 821 (¹) (¹) 180	1, 380 (1) (1) (1) 3, 572	1, 678 851 (¹) 245	963 407 (¹) 48	715 444 (¹)	5, 105 1, 413 3, 468 200	(*) (*) (*) (*)	(*) (*) (*) (*)

<sup>\*</sup>Not available.

Preparatory work for the 1950 Census.—The primary purpose of preparatory work was to obtain a more objective and workable definition of a multiple unit and to develop procedures which would provide accurate over-all totals and characteristics of operational units both for Census-defined farms and for realistic larger operating units. A subcommittee consisting of technicians of the Bureau of the Census and of the Bureau of Agricultural Economics, United States Department of Agriculture, performed this preparatory work.

The preparatory work included the pretesting in the field of the proposed procedures. In this preliminary testing, several typical multiple-unit areas were visited by the technicians. In each of these areas, the technicians were assisted by representatives of the State Office of Agricultural Estimates of the Bureau of Agricultural Economics, United States Department of Agriculture, and in Alabama and Texas, also by a specialist from the State Agricultural College.

The most difficult task was that of defining a multiple unit. All agreed that the multiple unit should include all land operated by closely supervised tenants plus any land retained and operated by the landlord. However, supervision varied in kind and degree and was difficult to determine by objective standards. Numerous questions were proposed and tried out in an effort to find suitable criteria for determining which tenants should be included as part of the multiple unit.

The most satsifactory single inquiry was that on work power, which the Census uses in determining the cropper group of tenants. Most of the croppers, as defined by the Census, were found to be closely supervised. However, the work-power criterion for the determination of closely supervised tenants was not fully satisfactory because it did not provide for including dependent tenants other than croppers. The characteristics of other dependent tenants varied from area to area. Criteria which would work in one area would not work in another. In some cases, dependent tenants other than croppers were furnished all the fertilizer by the landlord in lieu of work power, the crop being split 50-50, the same as for share croppers. In another variation, the tenant owned the work animals and paid cash rent but the landlord actually provided the credit for the purchase of the work animals and held a mortgage on such work stock until paid for out of the crop. Also, "furnish" was provided these tenants in the form of cash or credit advances in the same manner as for croppers. The introduction of tractor farming in the plantation area resulted in a number of variations in the cropper system including a "through and through" operation whereby most operations are performed for the entire acreage without regard to the land assigned to the

several tenants. Under such an arrangement, the tractor drivers are usually wage hands and the landlord makes a charge for the tractor work performed for each tenant.

The possibility of using the share of crops paid as rent as the basis for determining the closely supervised tenants was not feasible because of the numerous variations from the traditional "half and half" arrangement. Determination of the dependent tenants by the terms used locally for these classes of tenants was impracticable because of variations and inadequacy of the terms used in different areas. Leaving the determination to the respondent, as in 1945, was also discarded, as were inquiries on extent of supervision, and control of sale of crops.

The plan finally adopted was the requirement, throughout most of the South, for the enumerators to secure reports for all land-lord-tenant operations regardless of the degree of supervision given the tenants. Thus, no criteria which might be variously interpreted were given enumerators. The decision as to which operations represented multiple units was made during the processing of the questionnaires in Washington.

The questionnaire.—The Landlord-Tenant Operations Questionnaire was used throughout most of the South. It supplemented rather than replaced the agriculture questionnaire required for each Census-defined farm. An agriculture questionnaire was required for each cropper or tenant other than cropper even though the landlord handled the entire holding essentially as one operating unit. The landlord-tenant questionnaire was to be filled for the entire landlord holding. Thus, the two reporting forms obtained the same type of information but at different levels of operation.

Facsimiles of the landlord-tenant questionnaire and of the agriculture questionnaire are shown in the Appendix. The inquiries on the agriculture questionnaire varied from State to State. Most of the variations were in the inquiries relating to crops. Inquiries for crops not grown in the State and for crops grown only to a very limited extent were eliminated from the questionnaire for that State. A facsimile of the agriculture questionnaire is shown only for Georgia. There was only one version of the landlord-tenant questionnaire. Since rice and tobacco are not grown in the same areas, a combined inquiry was used for these two crops.

The landlord-tenant questionnaire was designed to serve two main purposes. In addition to providing statistical information for operations by persons who farm their land with tenants, including croppers, it was designed to help in obtaining more accurate reports for the individual Census farms represented in the landlord holding. It determined, first, the entire acreage

<sup>1</sup> Not included in the selected areas.

under the control of the landlord whether through ownership, rental or lease, or management for others, and second, the acreage assigned to each tenant or renter, including croppers. Lines were provided for listing the name of each cropper and other tenant. Above the lines for listing the separate tenants, a line was provided for entering over-all figures for the entire holding or operation—total acreage in 1950, cropland harvested in 1949, the acreage and production of principal crops harvested in 1949, and the number of work animals. On each line reserved for tenant information, corresponding figures were to be entered for the land assigned to each tenant. Provision was made for subtracting from the figures for the entire holding or operation the totals for the several tenants in order to obtain net figures for the "home farm," that is, for land not assigned to tenants.

The questionnaire included, for each tenant, inquiries designed to determine the relative dependence or independence of the various tenants. The replies to these inquiries were to be used in determining just which tenant operations represented separate operating units and which were operated along with the home farm as a single operational unit. These inquiries provided for a separation of horses and mules owned by the tenant from those owned by the landlord; they inquired as to whether the landlord furnished all work stock or tractor power to the tenant; they inquired as to the nature and amount of rent paid; and included one inquiry which asked directly whether the place was farmed as a separate operating unit.

To aid in checking the landlord-tenant questionnaire with the agriculture questionnaires for the tenants and "home farm," a column was provided for entering the questionnaire number of the agriculture questionnaire filled for each Census-defined farm represented in the landlord-tenant operation. If the land operated by a tenant was in a district assigned to another enumerator, the questionnaire provided for entering the name of the county, and the township, district, precinct, ward, or beat in which the land was located in lieu of the agriculture questionnaire number.

The enumeration.—Enumerators were instructed to fill a land-lord-tenant questionnaire for every person who does—

- (a) Some farming himself, either alone or with the help of his family or wage hands, and also rents farm land to others or has land worked on shares by others.
- (b) No farming himself, but rents farm land to two or more persons or has farm land worked on shares by two or more persons.

If, in filling an agriculture questionnaire, a farm operator indicated he was renting land from others, the enumerator was instructed to make inquiry regarding the landlord to determine whether or not a landlord-tenant questionnaire was required. Similarly, if a farm operator indicated he rented land to others, the enumerator was to fill a landlord-tenant questionnaire, in addition to the agriculture questionnaire.

Insofar as possible, the enumerator was to visit the landlord and fill a landlord-tenant questionnaire in his name before visiting any of his tenants. If a landlord-tenant questionnaire and an agriculture questionnaire were both required for an individual, the landlord-tenant questionnaire was to be filled first. Thus, the landlord-tenant questionnaire could be used to determine, for the specified items, the data required for the agriculture questionnaire for each Census-defined farm. This procedure was designed to insure complete coverage of the individual farms without duplications or omissions in respect to the items included in the landlord-tenant questionnaire.

In filling the landlord-tenant questionnaire, all information was to be obtained from the landlord unless better information could be obtained from the cropper or other tenant. The enumerator was specifically instructed to obtain from the landlord information for all crops in which he shared, also, for crops grown on the landlord's acreage in 1949, in which the 1950 tenant did not have an interest.

In addition to obtaining the landlord-tenant questionnaire, the enumerator was required to visit each tenant, including croppers, and fill an agriculture questionnaire for him. An agriculture questionnaire was likewise required for any land not assigned to tenants. When filling the agriculture questionnaire for each tenant, the information obtained on the landlord-tenant questionnaire was to be supplemented by the necessary additional information to be obtained from the tenant.

Enumeration of land in more than one enumeration district or county.—Land in a landlord-tenant operation may be located in two or more counties. In all such cases, the entire landlord-tenant operation was enumerated in one county. If the landlord lived on the place, the landlord-tenant operation was enumerated in the county where the landlord lived. If the landlord did not live on the place, the figures for the landlord-tenant operation were included in the county in which the "home farm" or landlord-tenant headquarters was located. If there was any question as to the location of the headquarters, the landlord-tenant operation was included in the county in which most of the land was located.

Each enumerator was assigned a specific area, called an enumeration district, and was responsible for the complete enumeration of all farms in that district. An enumeration district never included land in two counties or land in two minor civil divisions. If the land in a landlord-tenant operation was located in two or more enumeration districts, one enumerator was to fill the Landlord-Tenant Operations Questionnaire covering all the land, including that in the other districts.

Each Census farm was to be enumerated in the enumeration district in which it was located. If located in two or more districts, the farm was to be enumerated in only one district in the same manner as outlined for the landlord-tenant operation. Thus, one enumerator may have had the responsibility of enumerating the landlord-tenant operation and one or more other enumerators the responsibility of enumerating the tenant farms.

Office procedure.—When the questionnaires were received in the Washington office each landlord-tenant questionnaire was checked against the agriculture questionnaires for the tenants and the home farm. This check was to insure reasonable agreement of the two reports, to correct the errors, and to complete the reports if either was incomplete. The landlord-tenant questionnaires were also examined to determine which represented or contained multiple-unit operations and which tenant-operated tracts were parts of a multiple-unit operation.

Although Census enumerators were instructed to crossreference each agriculture questionnaire on the landlord-tenant questionnaire, this was sometimes omitted. In addition, the enumerator could not enter cross-reference identification for tenants in other enumeration districts since other enumerators were responsible for getting the agriculture questionnaires for those tenants. This made it necessary to match many of the questionnaires on the basis of the name of the landlord. Matching the agriculture questionnaires with the landlord-tenant questionnaires was a difficult and tedious task. A complete matching was not always possible. Enumerators did not always enter the name of the landlord on the tenant questionnaires. The name entered for the landlord was in some cases an agent; in other cases, either the owner or the immediate landlord when the rented land was sublet; or either the manager or owner when the land was managed. Different surname spellings, differences in initials or in the first name added to the difficulty in matching. Sometimes differences in the names of the tenants listed on the landlord-tenant questionnaires and those for the same landlord on the agriculture questionnaires indicated the possibility that either the tenants in 1949, instead of those in 1950, had been listed on the landlord-tenant questionnaire or that the agriculture questionnaires had been filled for land operated in 1949 rather than that operated in 1950.

After the landlord-tenant and the component agriculture questionnaires were brought together, the information pertaining to all land in farms, cropland harvested, tenure of operator, number of horses and mules, and crops specified on the landlord-tenant questionnaire were compared with the corresponding information on the agriculture questionnaires. Differences due to omissions on one or the other of the questionnaires, entries which apparently represented duplications in the reports for the landlord and tenants, or the inclusion of only their respective shares, or the like, were harmonized. Slight discrepancies which might represent differences in estimates by the respondents were not harmonized. If agriculture questionnaires were found for unlisted tenants for a given landlord, as was often the case if some of the land was operated by tenants living in other enumeration districts, these tenants and the information therefor were added to the appropriate landlord-tenant questionnaire.

When agriculture questionnaires were found for two or more tenants with the same landlord, and there was no landlord-tenant questionnaire for the landlord, a landlord-tenant questionnaire for the over-all operation was constructed in the Washington office. The information for the assumed over-all operation was obtained by totaling the information found on the agriculture questionnaires for the tenant operators. Likewise, when an agriculture questionnaire was found for a farm operator who reported land rented to others and there was no landlord-tenant questionnaire for this landlord, a report was constructed based on the information shown on the agriculture questionnaire. Approximately 8.1 percent of the questionnaires for landlord-tenant operations containing multiple units were constructed during the processing operations. In 1945, the office-constructed questionnaires represented 26.8 percent of the total included in the tabulations for that year; in 1940, they represented 42.4 percent; and in 1910, they represented 43.3 percent. The counts of officeconstructed questionnaires do not include those which were partially enumerated and had to be completed during the office processing.

In some instances, it was found necessary to prepare agriculture questionnaires for tenants, or for the home farm, based on the information reported on a landlord-tenant questionnaire, supplemented where necessary by information obtained through correspondence. However, because of the difficulties of matching the questionnaires, failure to find an occasional agricultural questionnaire was not considered sufficient evidence that an agriculture questionnaire had not been prepared during the enumeration. Agriculture questionnaires were prepared in the office only when it was evident that one or more enumerators had consistently failed to obtain agriculture questionnaires for certain groups of tenants. For example, if an enumerator did not prepare agriculture questionnaires for the land operated by tenants in his district when the landlord-tenant questionnaire was obtained by another enumerator, agriculture questionnaires were prepared in the office

After the matching and harmonizing of the two questionnaires, the landlord-tenant questionnaire was examined to determine if the landlord's holding contained a multiple-unit operation. A preliminary study of the landlord-tenant questionnaires indicated that the replies to the inquiry, "Is this place farmed as a separate operating unit?" could not be used as a satisfactory basis for separating the closely supervised or dependent tenants from those who operated their land independently. If the answers to this inquiry had been accepted, a large number of cash tenants and share tenants paying one-fourth of the crops as rent would have been included in multiple units while many of the croppers, even for these same landlords, would have been excluded.

Therefore, it was decided to use the presence of croppers, as defined by the Census (all work power furnished by the landlord), as the only basis for determining the existence of a multiple unit. It was recognized that under this procedure some dependent tenants would be excluded from the multiple-unit operations.

Likewise, a few croppers whose operations were wholly separate as to cropping or rotation practices and who were given little, if any, supervision would be included.

When the landlord-tenant operations containing multiple-units were identified, totals were obtained at the multiple-unit level and the questionnaires were coded for color and tenure of the multiple-unit operator. To obtain totals at the multiple-unit level, information for the croppers was added to that for the home farm. Only these totals, plus a limited amount of data at the landlord-tenant level, were transferred to punch cards. Only one punch card was used for each questionnaire. The classifications by size of multiple-unit, by acres of cropland harvested, by type of farm, and by kind of tenants were made mechanically from the punch cards.

Data for all farms were obtained from the tabulations of the agriculture questionnaires. For a description of the office procedures in editing, coding, and tabulating these data see the Introduction to Volume II, General Report, Statistics by Subjects, of the 1950 Census of Agriculture.

Data for farms not in multiple units were obtained by subtracting the totals for multiple-unit operations from those for all farms. (See "Reliability of data" for discussion of the information shown for these farms.)

#### DEFINITIONS AND EXPLANATIONS

Definitions and explanations are presented only for those items for which the table descriptions are considered inadequate. The definitions consist primarily of a résumé of the questionnaire wording, occasionally supplemented by the more essential parts of instructions and procedures for enumerating and processing the landlord-tenant and agriculture questionnaires. For the exact phrasing of the inquiries and of the instructions, reference should be made to the facsimiles of the 1950 Landlord-Tenant Operations Questionnaire, the 1950 Agriculture Questionnaire, and that portion of the Enumerator's Reference Manual relating to the Landlord-Tenant Operations Questionnaire which are shown in the Appendix.

The landlord-tenant area.—This is the area in which the Landlord-Tenant Operations Questionnaire was used in the enumeration. The landlord-tenant area included 977 counties, 967 of which are in 13 southern States and 10 in southeastern Missouri. For a complete list of the counties included, see the Appendix to this volume. The area was selected after mapping those counties in which there were 50 or more croppers accounting for 10 percent or more of all tenants, according to the 1945 Census. In order to keep the enumeration instructions uniform for all counties under one Census supervisor, some counties were included in which less than 10 percent of all tenants were croppers and in some instances counties were excluded in which croppers made up 10 percent or more of all tenants.

The multiple-unit area.—The data shown in this report are restricted to specified counties which are referred to as the multiple-unit area. The multiple-unit area comprises 902 of the counties included in the selected landlord-tenant area. In the selection of counties to be included in the multiple-unit tabulations, counties having relatively few multiple-unit operations were excluded unless other counties in the same economic area (groups of counties having similar agricultural, demographic, climatic, physiographic, and cultural characteristics) had an appreciable number of multiple-unit operations. Insofar as possible, the counties were selected to include an entire economic area. Since the Census supervisors' districts were used in determining the counties for enumeration of landlord-tenant operations and economic areas were used in determining the multiple-unit area, it was not always possible to include entire economic areas in the area selected for the multiple-unit study.

In the multiple-unit area there were 2,040,506 farms, or 37.9 percent of the 5,382,162 farms in the United States; and 341,986

croppers, or 97.2 percent of the 351,991 croppers in the 16 southern States and 7 counties in southeastern Missouri. For 1949, the multiple-unit area accounted for 67.6 percent of the cotton acreage, 91.0 percent of the tobacco acreage, 80.8 percent of the peanut acreage harvested for nuts, and 73.8 percent of the rice acreage.

Number of Counties Included and Number of Landlord-Tenant Operations in the Landlord-Tenant and Multiple-unit Areas, by States: Census of 1950

	Landlord-	tenant area	Multiple-unit area		
State	Number of counties	Number of landlord- tenant operations	Number of counties	Number of landlord- tenant operations	
Total	977	414,685	902	408,853	
Alabama. Arkansas. Florida. Georgia. Kentucky  Louisiana. Maryland. Mississippi. Missourl. North Carolina. South Carolina. Tennessee. Texas. Virginia.	32 1159 112 164 6 182 10 90 146 72	46, 246 23, 640 3, 703 41, 049 40, 908 19, 923 1, 231 46, 363 4, 748 58, 010 28, 965 44, 878 39, 766 15, 255	1 67 45 25 2 1 159 105 1 64 5 1 82 7 90 1 46 70 85 52	46, 246 21, 943 3, 672 41, 049 39, 941 19, 923 1, 176 46, 363 4, 479 58, 010 28, 965 44, 635 37, 744	

<sup>1</sup> All counties in State.

A landlord-tenant operation consists of all the land held by a landlord who rents land to one or more tenants, including croppers, and retains some land not assigned to tenants, or who rents land to two or more tenants, including croppers, and retains no land for himself. The landlord may hold the land through ownership or through lease, rental, or cropping arrangement, or as a hired manager for others.

A multiple-unit operation or multiple unit is a landlord holding of two or more subunits (Census-defined farms) one of which may consist of land not assigned to croppers or other tenants (home farm), but the other subunit or subunits must represent land assigned to croppers. Land assigned to tenants other than croppers was not considered a part of a multiple-unit operation. In a multiple-unit operation, generally the landlord supervises the tenants and maintains central control in respect to planning the use of the cropland, the use of machinery, and the purchase of fertilizer, seed, feed, and other supplies.

Census enumerators were not given the definition of a multiple unit. The existence of a multiple unit was determined during the office processing of questionnaires in Washington.

Landlord-tenant operations containing multiple-units.—All multiple units represent landlord-tenant operations or portions of landlord-tenant operations. The home farm, if one, plus all component tenant farms, including cropper farms, make up the landlord-tenant operation. The home farm, if one, and one or more cropper farms make up the multiple unit. If croppers were the only kind of tenants represented in the landlord-tenant operation, the multiple unit was identical with the landlord-tenant operation. If there were tenants in addition to croppers, the operations of the additional tenants were a part of the landlord-tenant operation but not a part of the multiple unit.

Subunits.—A subunit denotes a component part of a landlord-tenant or multiple-unit operation. The land assigned each cropper or tenant other than cropper is a subunit. The land retained by the landlord, i. e., the land not assigned to tenants including croppers is likewise a subunit. Each subunit is a "farm," as defined by the Census, except for tenants, including croppers, who own, or rent from others additional land. (See discussion under "Tenants.") One of the subunits of a landlord-tenant operation is

usually the "home farm." The other subunits are classed as cropper farms, share-tenant farms, and other-tenant farms (not cropper or share-tenant farms).

A home farm includes all the land in a landlord-tenant operation not assigned to tenants, including croppers. multiple unit, the home farm includes the portion of land not assigned to croppers. In a landlord-tenant operation containing a multiple unit, the home farm of the multiple unit is the same as that of the landlord-tenant operation. The home farm was determined by subtracting, from the over-all landlord-tenant operation, the operations of all tenant sub-(See discussion under "Office procedure.") The home farm usually contains the home of the multiple-unit operator or the headquarters where work stock and equipment are kept for the entire multiple-unit operation. It usually includes land worked by the multiple-unit operator with the help of family and/or hired labor. Occasionally, a home farm may merely consist of pastureland not assigned for the exclusive use of a cropper or tenant, and woodland, or wasteland. Home farms of landlord-tenant and multiple-unit operations were considered farms for Census purposes if they contained 3 or more acres even though the agricultural operations on the homefarm tract may have been insufficient to qualify as a farm.

In some multiple-unit operations all the land is assigned to croppers. Such multiple units do not have home farms. In most of these cases, the multiple-unit operator does not live on the place.

Tenants rent from others or work on shares for others all the land they operate. When used in reference to subunits of a landlord-tenant or multiple-unit operation, the tenure relates only to land operated in that landlord-tenant or multiple-unit operation. For example, a tenant or cropper of a particular landlord may also rent land from, or crop land for, other landlords; or he may own land on his own account. In such instances, in presenting statistics for landlord-tenant and multiple-unit operations, the subunit operated by the cropper, or tenant other than cropper, was treated as though it were a complete farm in itself. This procedure was one of convenience and varies from that used in tabulating data for farms. In the data for all farms the entire acreage operated, including land owned and/or land rented from others, was counted as one farm. The term "tenant" may, in addition to referring to a person who rents or works on shares a tract of land comprising a component part of a landlord-tenant or multiple-unit operation, refer also to a landlord-tenant or multiple-unit operator, or it may refer to a person renting land

not a part of a multiple unit. Croppers are crop-share tenants whose landlords furnish all the work power. For convenience, the classification was based entirely on whether the landlord furnished all the animal or tractor power. Traditionally, a cropper has been thought of as a hired worker who is paid a share of the crops in lieu of a cash wage. He was said to differ from a wage hand in that he was assigned a specific acreage and his payment was not fixed but depended upon the quantities of crops harvested on the land he worked, the price received from their sale, etc. The laws of some States define a share cropper as a tenant. In other States, a cropper may be legally classified as either a laborer or a tenant, depending upon the nature of the agreement under which he produces a crop. In most States, court decisions as to his tenure status have been based on whether he had title to the crop and, upon harvest, paid his landlord a share, or whether the landlord retained title to the crop and, upon harvest, paid the cropper his share after deducting any advances in cash, credit, supplies, etc.

Most cropper farms represent subunits of multiple-unit operations. However, cropper farms may be operated as independent units, the landlord neither having other croppers nor farming any land with his own labor or with the help of members of his family and/or wage workers. Thus, farms not in multiple units include some farms operated by croppers.

Share tenants are tenants other than croppers who pay their landlords a share of either the crops or livestock products, or a share of both.

Other tenants in this report refers to all tenants who were not classified as croppers or as share tenants. In the other reports of the 1950 Census of Agriculture, "other tenants" represents a more restricted group than in this report.

A farm.—For the 1950 Census of Agriculture, places of 3 or more acres were counted as farms if the value of agricultural products in 1949, exclusive of home gardens, amounted to \$150 or more. The agricultural products could have been either for home use or for sale. Places of less than 3 acres were counted as farms only if the value of sales of agricultural products in

1949 amounted to \$150 or more. Places operated in 1949 for which the value of agricultural products in 1949 was less than these minima because of crop failure or other unusual situation, and places operated in 1950 for the first time, were counted as farms if, normally, they could be expected to produce these minimum quantities of farm products. As explained above, an exception to the criterion in regard to the value of agricultural products produced was made for home farms of landlord-tenant and multiple-unit operations.

All the land under the immediate control of one person or partnership was included as one farm. Control may have been through ownership, or through lease, rental, or cropping arrangement. Land worked on shares for others was considered as under the immediate control of the person working the land. Thus the land assigned to a cropper or tenant other than cropper was considered a separate farm even though the landlord may have closely supervised the cropper or tenant other than cropper and handled his (the landlord's) entire holding essentially as one operating unit.

Farms in multiple units are the cropper and home-farm subunits comprising the multiple unit.

Farms not in multiple units are those which are not parts of multiple-unit operations. Some of the farms not in multiple units represent farms in landlord-tenant operations. In this report, the totals for farms not in multiple units may include some closely supervised tenants who were excluded from the multiple unit by definition, since croppers were the only tenants included in the multiple unit. The information shown for farms not in multiple-unit operations was obtained by subtracting the totals for multiple-unit operations from those for all farms. (For an appraisal of this procedure, see "Reliability of Data.")

Operation unit.—An operation unit is a complete farm business consisting of either a multiple-unit operation or a farm not in a multiple unit. A subunit of a multiple-unit operation is not considered to be an operation unit.

Multiple-unit operator.—A multiple-unit operator is the person who directs or supervises the multiple-unit operation, including the operations of the croppers. In this report, the multiple-unit operator is frequently referred to as the landlord. He is the person who controls the land either through ownership, lease, rental, or cropping arrangement. The croppers in the multiple unit work land on shares for him. He may be a hired manager employed by the person who controls the land. The number of multiple-unit operators is considered the same as the number of multiple units.

Farm operator.—A "farm operator" is a person who operates a Census-defined farm, either performing the labor himself or directly supervising it. He may be an owner, a hired manager, or a tenant, renter, or share cropper. If he rents land to others or has land cropped for him by others, he is listed as the operator of only that land which he retains. In the case of a partnership, one member only was included as the operator. The number of farm operators, therefore, is considered the same as the number of farms.

Units, farms, or operators reporting.—Figures for units reporting, farms reporting, or operators reporting represent the number of multiple units or other designated units, the number of farms, or the number of operators, for which the specified item was reported. For example, if there were 240 multiple units in a county and 187 of these harvested tobacco in 1949, then the number of multiple units reporting tobacco would be 187. The difference in the total number of multiple units and the number reporting an item represents the number not having that item, provided the inquiry was answered for all multiple units.

Land owned and land rented from others.—The land to be included in each landlord-tenant operation was determined by asking the number of acres owned. and the acres rented from, or worked on shares, for others.

Land owned includes all land which the operator or his wife, or both, hold under title, purchase contract, homestead law, or as one of the heirs, or as a trustee of an undivided estate. In the case of a managed operation, the inquiry on the landlord-tenant questionnaire related to the land owned by the employer.

Land rented from others includes land worked on shares for others, and land used rent free, as well as all land rented or leased under other arrangements. In the case of a managed operation, the inquiry on the landlord-tenant questionnaire related to the land rented from others by the employer.

Land in the landlord-tenant operation represents the sum of the land owned plus that rented from others by the landlord. The total of the land in all subunits comprising a landlord-tenant operation is identical with the total land in the landlord-tenant operation.

Land in the multiple unit represents the sum of the land in the home-farm subunit plus that in the cropper subunits. Land rented by the multiple-unit operator to tenants other than croppers is excluded from the multiple-unit operation, by definition.

Land in farms.—The acreage in each farm was obtained by adding the acres owned by the farm operator and the acres rented by him from others, or cropped on shares by him for others, and subtracting the acres rented to or worked on shares by others.

The acreage designated "land in farms" includes considerable areas of land not actually under cultivation and some land not used for pasture or grazing. All woodland and wasteland owned by farm operators, or included in tracts rented from others, is included as land in farms unless such land was held for other than agricultural purposes, or unless the acreage of such land held by a farm operator was unusually large. If the total acreage of land owned, rented, or managed by a farm operator was 1,000 or more (5,000 or more in Texas and other western States) and less than 10 percent of the total was used for crops, or for pasture or grazing, or was rented to others, any woodland not grazed and any wasteland, in excess of the acreage used for agricultural purposes, were excluded from the farm area.

Cropland harvested.—This represents that portion of the land in the multiple unit, or in the farm (subunit or otherwise), from which crops were harvested in 1949 including land from which hay was cut and land in small fruits, orchards, vineyards, nurseries, and greenhouses. Land from which two or more crops were harvested in 1949 was to be counted only once.

Crops harvested.—The landlord-tenant questionnaire asked specifically concerning five crops harvested in 1949, viz, corn, cotton, tobacco, rice, and peanuts. The inquiry for corn was restricted to corn harvested for grain and that for peanuts to peanuts harvested for picking or threshing. Data for crops shown for all farms and for farms not in multiple units are limited to those specified on the landlord-tenant questionnaire. The crops were to be those harvested in 1949 from land under the control of the operator in 1950 regardless of whether the crops were grown by the operator or by someone else. Crops grown by the operator on land not under his control in 1950 were not to be included.

Horses and mules.—The inquiry was for horses and mules of all ages. The horses and mules were to be reported for the farm or unit where kept, regardless of ownership. If horses and mules owned by a multiple-unit operator and furnished to the croppers were kept on the cropper farms, they were to be included on the agriculture questionnaires for the croppers; if kept on the home farm, they were to be reported on the agriculture questionnaire for the home farm. Thus, in the multiple-unit area, many of the farms not reporting horses and mules represent cropper farms for which the horses and mules were reported on the home farm.

#### CLASSIFICATION OF MULTIPLE UNITS

Multiple units by size.—Multiple units are classified by size according to the total land area in each multiple-unit operation.

Multiple units by color and tenure of operator.—Multiple-unit operators are classified by color as white and nonwhite. Nonwhite includes Negroes and all other nonwhite races such as Indians, Chinese, Japanese, etc. In the multiple-unit area nearly all of the nonwhite operators of multiple units and of farms are Negroes.

Multiple-unit operators are classified according to the tenure under which they hold their land on the basis of the total land owned and the total land rented from others, and on the basis of the reply to the inquiry, "Do you operate this land as a hired manager?"

Full owners own land but do not rent land from others.

Part owners own land and rent land from others.

Managers operate land for others, directing and supervising the entire multiple-unit operation, and are paid a wage or salary for their services.

Tenant-multiple-unit operators rent from others all the land in the multiple-unit operation. They own no land.

Multiple units by type of farm.—Multiple units are classified as to type on the basis of the kinds of crops grown and the relationship of the acreage of each crop grown to cropland harvested and to other crops grown. Only the cash crops—cotton, tobacco, peanuts, and rice—were used as a basis for the classification by type.

If only one of these cash crops was of primary importance, the multiple unit was designated as that crop type. A crop was considered as being of primary importance when its acreage represented 10 percent or more of the acres of cropland harvested in the case of cotton, peanuts, or rice, or 2 percent or more in the case of tobacco.

To be considered of secondary importance, the acreage of a given crop—cotton, peanuts, or rice—equaled or exceeded 10 percent of the acreage of the primary crop, provided the primary crop was not tobacco. If the primary crop was tobacco, it was necessary for the acreage of cotton, peanuts, or rice to equal or to exceed the tobacco acreage in order to be considered a secondary crop. Tobacco was considered a secondary crop when it comprised at least 1 but less than 2 percent of the total cropland barvested

If one of these cash crops was of primary importance with one or more of secondary importance, or if two or more were of primary importance, the multiple unit qualified as a combination-crop type. For the combination types, all of these crops of either primary or secondary importance are indicated by the type name. For the combination types, the type name does not distinguish the relative importance of the crops comprising the combination. Thus, in a "cotton and tobacco" type, either the cotton may be of primary importance with tobacco secondary, or the tobacco primary with cotton secondary, or both crops may be of primary importance.

If a multiple unit did not qualify as either a primary-crop type or a combination-crop type, it was classed as "miscellaneous." Thus, the "miscellaneous" type includes multiple-unit operations with none of the four designated crops reported; also, those for which none of the designated crops were considered of primary importance.

Multiple units by acres of cropland harvested.—This classification was based on the acreage from which crops were harvested in 1949 for each multiple unit.

Multiple units by number of subunits.—This classification was based on the total number of subunits in each multiple-unit operation. Since, by definition, a multiple unit must have at least two subunits, the classification begins with those having two subunits only. In the classification, the home farm is counted as one of the subunits. A distribution of multiple units by number of croppers may be obtained from this tabulation. For example, if there are 326 multiple units with 2 subunits and 291 of these have home farms, 291 of these have only 1 cropper each, and 35 have 2 croppers each. These 35 added to the number having 3

subunits that have home farms gives the total number of multiple units having 2 croppers each.

Multiple units by kind of tenants in the landlord-tenant operation.—Multiple units were classified into the following groups on the basis of the kinds of tenants in the landlord-tenant operation:

Croppers only.—In this group, each landlord-tenant operation containing a multiple unit reported only cropper tenants. For this group, the multiple-unit operation is identical with the landlord-tenant operation.

Croppers, share, and/or other tenants only.—In this group, each landlord-tenant operation containing a multiple unit reported both croppers and share tenants. It may or may not have included tenants other than croppers or share tenants. For this group, the landlord-tenant operation is larger than the multiple-unit operation.

Croppers and tenants other than share tenants only.—In this group, all the landlord-tenant operations containing a multiple unit included, in addition to croppers, "other tenants" (not croppers and not share tenants), but no share tenants. Probably most of these other tenants represented cash tenants, standing renters, etc., who operated their places entirely independently of the multiple-unit operation. However, a few of these other tenants may have been closely supervised with their operations handled along with those of the croppers, and the home farm.

#### PRESENTATION OF THE STATISTICS

This report presents data for multiple-unit operations from the 1950 Census of Agriculture, supplemented by data for all Census-defined farms and Census farms not in multiple units. No comparative data are shown for preceding censuses since multiple units, as defined in 1950, differ from those operations for which statistics were gathered in previous censuses. (See "Multiple-unit statistics for prior censuses.")

The data gathered in 1950 are presented for the entire multipleunit area, by States, by counties, and by State economic areas.

Summary data for the selected multiple-unit area.—The Summary Tables 1 to 24 present data for the entire multiple-unit area. Most of the data presented were taken or derived from tables giving data by county or State economic area. Some of the tables present averages or percentages to aid in the use and analysis of the statistics.

State data.—State totals for all farms, for multiple-unit operations, and for farms not in multiple units are shown in Summary Tables 1 and 3. State totals for multiple-unit operations classified by size, tenure, etc., are shown only in the State economic area tables. State totals for the number of landlord-tenant operations and for multiple-unit reports classified according to whether enumerated or office-constructed are given in Summary Table 2.

County data.—The county table presents, for the selected counties, data for multiple-unit operations with comparative data for all farms. This table also shows the number and total acreage for farms not in multiple units. No data by size, tenure, or other classification of the multiple unit are shown by counties. Data for such classifications are presented in the State economic area tables.

State economic area data.—The numbers of landlord-tenant operations and multiple-unit operations classified according to whether enumerated or office-constructed are shown by economic areas in Summary Table 2. Data for multiple-unit operations classified by size of unit based on total acres in the unit, by color and tenure of the multiple-unit operator, by type of farm, by acres of cropland harvested, by number of subunits, and by kind of tenants in the landlord-tenant operation, are shown in State Economic Area Tables 1, 2, 3, 4, 5, and 6, respectively.

Data for all farms and for farms not in multiple units are not shown by economic areas. The data for all farms and for farms not in multiple units could be obtained for any items by adding the figures for the individual counties comprising the State economic area and making the necessary computations.

State economic areas represent groupings of counties within a State. The counties comprising a State economic area have similar agricultural, demographic, climatic, physiographic, and cultural characteristics. (For a description of State economic areas, see the special report of the Bureau of the Census entitled, "State Economic Areas: A Description of the Procedure Used in Making a Functional Grouping of the Counties of the United States.") Except for the metropolitan areas, the State economic areas, in general, are the same as State type-of-farming areas. Since the counties comprising each State economic area have similar characteristics, data for a State economic area may be used for describing, with reasonable accuracy, the characteristics of the agriculture in each county making up the area.

For the most part, the counties selected for inclusion in the multiple-unit area include entire economic areas. However, in some instances it was not feasible to follow this general rule. For economic areas for which all counties were not included, the economic area designation is followed by the word "part" to indicate that the area for which data are shown, represents only a portion of the economic area. In Virginia, no data are included for the Independent Cities. In Tennessee, only Sevier County in Economic Area 8a was included in the selected counties. Statistics for this county are included with Economic Area 8b.

A map of each State showing the counties and economic areas with a designation of the counties not included in the multiple-unit area precedes the county and economic area tables for the State.

Reliability of data.—In using the data presented in this report, it is necessary to consider not only the effect of the procedures upon the data but also the accuracy of the original reports. The procedures affected the reliability of the data shown in this report in at least five ways.

First, the definition of a multiple unit was established arbitrarily. Some of the subunits comprising multiple units may not be under the close supervision of the landlord and may be operated as independent units. Moreover, some tenant-operated farms not included in multiple-unit operations may have been under the close supervision of the landlord and may have been operated as a part of a larger operational unit.

Second, during the office processing, landlord-tenant questionnaires were prepared for 12,023 multiple units. These office-constructed questionnaires represented 8.1 percent of the multiple units. For 5,514 of the office-constructed questionnaires, there was no agriculture questionnaire for the landlord and, in such cases, it was not possible to determine the total acreage held by him or to determine his tenure. However, for statistical purposes, it was assumed that the sum of the acreage of land shown on the agriculture questionnaires for tenants of such landlord represented the total acres of land in the landlord-tenant operation and that the landlord owned the land.

Third, in some cases, the number of multiple units may have been understated. For example, if an agriculture questionnaire indicated that land was rented to others, a search was made to locate the agriculture questionnaires for the tenants of that landlord. In many cases, matching tenant questionnaires were not located. When that was the case, the existence of a landlord-tenant operation was indicated but the existence of a multiple unit could not be determined.

Fourth, in some cases, the number of multiple units, as well as the number of subunits, may have been overstated. Differences in names reported for the landlord may have resulted in the construction of additional landlord-tenant question-Tenants may have been included as part of a landlordtenant operation when those tenant operations were already listed under a slightly different name or under another name if either the landlord-tenant or agriculture questionnaire erroneously listed the 1949 tenant and not the 1950 operator. Also, the matching of landlord-tenant and agriculture questionnaires was performed on a county basis. In cases where a landlord-tenant questionnaire had not been prepared and the tenants belonging to the landlord-tenant operation were enumerated in two or more counties, a landlord-tenant questionnaire may have been constructed for each county in which there were tenants.

Fifth, the method of determining the data for farms not in multiple units has affected the reliability of the data for such farms. The data were determined by subtracting information for multiple units from the totals for all farms. This procedure has resulted in the inclusion, in the totals for farms not in multiple units, of all errors arising from differences between the data on the landlord-tenant questionnaires and those on the component agriculture questionnaires. Data for multiple-unit operations are subject to enumerating, reporting, and other errors similar to those affecting data for the census of agriculture. Measures of the completeness of the census of agriculture for the multiple-unit area and the statistics for multiple units are not available. For an appraisal of the completeness and reliability of the 1950 Census of Agriculture, reference should be made to the Introduction to Volume II, General Report, Statistics by Subjects, of the 1950 Census of Agriculture reports.

Fully reliable check data do not exist for all the cash crops important in the multiple-unit area. Check data of accepted reliability are available for cotton harvested in the multiple-unit area. According to data on cotton ginnings as obtained by the Census, the total amount of cotton for the counties in the multiple-unit area in 1949 was 9,762,318 bales, as compared with 9,589,728 bales as shown by the Census of Agriculture.

In much of the multiple-unit area, the totals for multiple-unit operations represent a large part of the totals for all farms, and small errors in the data for landlord-tenant operations may affect, considerably, the totals for farms not in multiple units. For example, in the States of Arkansas, Kentucky, Louisiana, and Mississippi, the number of subunits operated by croppers and included in multiple units exceeds the number of farms operated by croppers. This greater number of cropper farms shown in the multiple-unit reports than are shown in the reports for all farms may be due to the following:

(1) Overstatement of the number of multiple units and of subunits in the multiple-unit operations due to the office construction of multiple units and the addition of tenant names for operations already included but not identifiable with those reported on the agriculture questionnaires.

(2) The possibility, in the case of subunits which could not be matched, of a tenant being reported as a cropper on the landlord-tenant questionnaire and as another tenure on the

agriculture questionnaire.

(3) The counting of cropper subunits representing only parts of farms as though they were entire farms. In such case, the entire farm may sometimes be a part-owner farm or a tenant farm other than cropper.

(4) The possibility that the enumeration of tenant farms on the landlord-tenant questionnaire may have been more complete than the enumeration of tenant farms in the census of

agriculture.

(5) The listing by the enumerator, on the Landlord-Tenant Questionnaire, of both 1949 and 1950 tenants. Only 1950 tenants should have been listed.

The procedure for showing the data for a multiple unit in the county in which its headquarters is located and the data for individual farms comprising the multiple unit, in the county in which the farms are located, affects the totals for farms not in multiple units in counties where parts of multiple units are located in different counties.

Multiple-unit statistics for prior censuses.—Because of the lack of comparability, the tabular presentation of multiple-unit data does not include any statistics for prior censuses.

For 1945, statistics for multiple-unit operations are presented in a special report entitled, "Multiple-Unit Operations." Data are shown for 567 selected counties in 9 States. The definition used for 1945 was as follows:

A multiple-unit operation is one in which two or more subunits are handled as a single-farm enterprise. It usually involves supervision of cropper or tenant operations and central control of such items as sale of products, work power, machinery and equipment, crop rotation, or purchase of supplies. A multiple-unit operation consists of two or more subunits, one of which must be a cropper or tenant operation under the close supervision of the multiple-unit operator. One of the subunits may consist of land worked by the operator, his family, or wage hands. Plantations should usually be reported as multiple-unit operations.

For 1940, statistics for plantations are presented in a special report entitled, "Special Study-Plantations." Only a very limited number of copies were printed and distributed, primarily to the land-grant colleges in the South. If any of the 1940 data are desired, and the 1940 special report is not available in a reference library, copies of the tabular material may be obtained from the Bureau of the Census by paying the cost of making a photostatic copy. In the 1940 report, statistics are presented for the plantation as a whole, also for the farms comprising the plantation. Data are shown for 372 selected counties in 10 States. The definition used for 1940 was as follows:

A plantation (as here used) comprises a continuous tract or closely adjacent tracts of land on which five or more farm families (including at least one cropper or tenant family) are regularly employed, and which tracts are operated as a single working unit in respect to a central farm headquarters and to the control of labor, cropping systems, and farming operations. Thus, a plantation should include all the land worked from a central farm headquarters with croppers, wage labor, or the operator's family labor, plus any additional land, worked by share or other tenants, that may be part of the operation of the unit or plantation as a whole.

For 1910, statistics for plantations were published as Chapter XII in Volume V of the 1910 Census reports and in a monograph based on this and other statistical material issued by the Bureau of the Census in 1916 entitled, "Plantation Farming in the United States." Data are shown for areas representing 325 selected counties in 11 States. The definition used for 1910 was as follows:

A tenant plantation is a continuous tract of land of considerable area under the general supervision or control of a single individual or firm, all or a part of such tract being divided into at least five smaller tracts, which are leased to tenants.

The accompanying tabular presentation of the areas covered in multiple-unit or plantation studies and of the definitions provides a convenient reference of the differences in the statistictl treatment of multiple-unit operations for the several censuses.

NUMBER OF STATES AND COUNTIES INCLUDED IN THE MULTIPLE-UNIT OF PLANTATION AREAS, BY STATES: CENSUSES OF 1950, 1945, 1940, and 1910

State	1950	1945	1940	1910	
States, total	14 902	9 567	10 372	11 325	
Selected counties in— Alabama Arkansas Florida Georgia	1 67 2 45 25 1 159	1 67 2 46	40 27	47 23 1 70	
Kentucky Louisiana Maryland Mississippi	105 1 64 5 1 82	1 64 1 82	29 66	29 45	
Missouri North Carolina	90.	80 80	5 44	21	
South Carolina Tennessee Texas. Virginia.	1 46 70 85 52	1 46 	30 20 9	35 11 41 2	

## Comparison of Criteria Used for Defining Multiple Units and Plantations: Censuses of 1950, 1945, 1940, and 1910

Census	Minimum number of		Kind of subunits included	Requirement as to operating	All subunits part of a		
year	subunits	Home farm	Croppers	Tenants other than croppers	unit	continuous tract	
1950	2	Not necessary.	All subunits other than the home farm had to be cropper operations.	Excluded.	Not specified for enumeration; determination made in the Washington office.	Not necessary.	
1945	2	Not necessary.	Subunits other than home farm other tenant opera- for office-constructed reports at least one of the tenant opera- tions was a cropper operation.	ations.  Other classes of tenants	Handled as a single-farm enter- prise with close supervision of cropper and/or tenant operations.	Not specified to the enumerator.	
1940	Not specified; however, there had to be 5 or more farm families reg- ularly employed.  5 or more subunits were required for office-con- structed reports.	Not necessary.	At least one of the regularly emperor or other for the office-constructed reports, at least one of the subunits was a cropper operation.	tenant.	Operated as single-working unit.	Continuous or closely adjacent tracts.	
1910	5 tracts leased to tenants.	Necessary.	Kind of tenants n	ot specified.	Under general supervision or control of a single individual.	Continuous tract of land of considerable area.	

<sup>&</sup>lt;sup>2</sup> The 1950 multiple-unit area included two counties not included in the 1945 area; and the 1945 multiple-unit area included three counties not in the 1950 area.



























































