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# GENERAL REPORT AND ANALYSIS

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## INTRODUCTION.

### SCOPE AND METHOD OF THE CENSUS.

**General description of census reports of agriculture.**—At the Thirteenth Census a separate report pertaining to agriculture was prepared for each state and was issued as a bulletin and subsequently bound as part of the supplement for the given state to the Abstract of the Census. In this report the general results of the census inquiry relating to the state were summarized. It presented a series of tables in which the most important figures for the state as a whole were shown, with such text as seemed necessary to properly explain and interpret these tables. At the end of each state report six county tables were presented, in which the statistics of all important items were given by counties. Separate reports were prepared for Alaska, Hawaii, and Porto Rico. Special reports as to irrigation, similar in general character, were prepared for various Western states in which irrigation is practiced. All of these separate state reports as to agriculture and irrigation have been consolidated and appear as Volumes VI and VII of the Thirteenth Census Reports.

In the present volume the general results of the census inquiry are summarized by states, geographic divisions, and sections. The data are arranged according to subjects.

**Area of enumeration.**—The area of enumeration of the Thirteenth Decennial Census included, besides the United States in the ordinary understanding of that term, Alaska, Hawaii, and Porto Rico. Other outlying possessions and dependencies were not canvassed. The totals printed in this volume for the United States do not include data for Alaska, Hawaii, and Porto Rico, which will be found in the separate reports for these dependencies presented in Volume VII. The exclusion of these outlying possessions from the tables and discussion rests on the obvious differences as respects population and social and economic conditions between these distant territories and continental United States.

**Law providing for the census of agriculture.**—By the terms of the act of Congress approved July 2, 1909, the Bureau of the Census was charged with the duty of collecting statistics showing the status of the agricultural industry, and also showing the quantity and value of all farm products during one calendar or crop year. The facts to be collected and arranged in statistical form were described in the second paragraph of section 8, as follows:

The schedules relating to agriculture shall include name, color, and country of birth of occupant of each farm, tenure, acreage of farm, acre-

age of woodland and character of timber thereon, value of farm and improvements, value of farm implements, number and value of live stock on farms and ranges, number and value of domestic animals not on farms and ranges, and the acreage of crops planted and to be planted during the year of enumeration, and the acreage of crops and the quantity and value of crops and other farm products for the year ending December thirty-first next preceding the enumeration.

**Schedules and method of canvass.**—The general farm schedule was prepared in accordance with the provisions of the census act and was designed for the exclusive purpose of collecting data relating to farmers, farm land, farm property, and farm products. A schedule was also prepared for the exclusive purpose of collecting data relating to domestic animals not on farms. These schedules and the instructions to the enumerators are reproduced in the appendix to this volume.

In addition to these general schedules certain special schedules were provided. One of these was prepared for securing more detailed information concerning florists' establishments and another for nurseries. Whenever it was impossible to secure the information required by these schedules through correspondence it was collected by special agents. A third special schedule pertaining to irrigation was prepared, the data being collected by special agents. This was used exclusively in the Western and Southwestern states. This schedule was designed to secure more detailed information than was called for by the general farm schedules carried by the enumerators. It is more fully described and the results secured are found in Chapter XI of this report. Another special schedule, referred to as the "plantation schedule," was used in the Southern states only, and was filled by the enumerators. Copies of all these schedules, with the instructions for their use, appear in the appendix to this volume.

The two general schedules—the general farm schedule and the schedule for securing data pertaining to domestic animals not on farms—were carried by the enumerators who also had the duty of collecting statistics of population. The terms of the act prescribing the method of securing the data are, in part, as follows:

SEC. 10. That each supervisor of the census shall be charged with the performance, within his own district, of the following duties: To consult with the Director of the Census in regard to the division of his district into subdivisions most convenient for the purpose of the enumeration, which subdivisions or enumeration districts shall be defined and the boundaries thereof fixed by the Director of the Census; to designate to the Director suitable persons, and, with his consent, to employ such persons as enumerators, one or more for each subdivision; to communicate to enumerators the necessary

instructions and directions relating to their duties; to examine and scrutinize the returns of the enumerators, and in the event of discrepancies or deficiencies appearing in any of the said returns to use all diligence in causing the same to be corrected or supplied; to forward the completed returns of the enumerators to the Director at such time and in such manner as shall be prescribed. \* \* \*

Sec. 12. That each enumerator shall be charged with the collection in his subdivision of the facts and statistics required by the population and agricultural schedules and such other schedules as the Director of the Census may determine shall be used by him in connection with the census, as provided in section eight of this act. It shall be the duty of each enumerator to visit personally each dwelling house in his subdivision, and each family therein, and each individual living out of a family in any place of abode, and by inquiry made of the head of each family, or of the member thereof deemed most competent and trustworthy, or of such individual living out of a family, to obtain each and every item of information and all particulars required by this act as of date April fifteenth of the year in which the enumeration shall be made; and in case no person shall be found at the usual place of abode of such family, or individual living out of a family, competent to answer the inquiries made in compliance with the requirements of this act, then it shall be lawful for the enumerator to obtain the required information as nearly as may be practicable from families or persons living in the neighborhood of such place of abode. It shall be the duty also of each enumerator to forward the original schedules, properly filled out and duly certified, to the supervisor of his district as his returns under the provisions of this act; and in the event of discrepancies or deficiencies being discovered in these schedules he shall use all diligence in correcting or supplying the same. \* \* \*

It will be seen from the above that the enumerators who carried the general farm schedule personally

visited each farm. Enumerators who carried the schedule for securing data pertaining to domestic animals not on farms visited the persons in charge of inclosures, etc., in cities, towns, and villages, and secured from them the facts desired.

In order that the enumerators might not fail to secure details desired, on account of the presence of large numbers of persons who were unable to speak the English language, authority was given to employ interpreters wherever it was not possible to secure enumerators who could speak the language or languages required. (Sec. 15 of the census act.)

**Date of enumeration.**—Section 20 of the census act provided "that the enumeration of the population required by section one of this act shall be taken as of the fifteenth day of April." For the sake of economy it was considered necessary to secure the agricultural data, except, of course, those relating to the products of 1909, as of the same date. As the result of the selection of this date, however, it was impossible to secure data pertaining to live stock which would be satisfactorily comparable with those for prior censuses, when the date of enumeration was as of June 1. The status of live stock in April is quite different from that in June. A more complete discussion of this point will be found in Chapter VI. The census enumeration of farms began on April 15 and in most districts was completed within the 30 days allowed by law.

#### DEGREE OF ACCURACY OF THE STATISTICS.

It is believed that most of the agricultural statistics secured by the method described are accurate enough for all general purposes. They should not be considered in the same light as estimates. On the other hand, it can not be said that they are absolutely accurate. Several reasons may be given why this can not be expected.

**Data relating to 1910.**—The statistics which pertain to the status of the agricultural industry on April 15, 1910, are presumably more accurate than those as to the products of farms in 1909. The former refer to a date not long prior to that on which the farm was visited by the enumerator. There is, however, room for error even in these statistics. Some of the great number of enumerators, naturally, proved more or less incompetent. A few of the inquiries on the census schedules were not fully understood in some districts either by the enumerators or by the farmers. In the case of certain inquiries some farmers were unwilling to give the facts required. This was particularly common with respect to the inquiries pertaining to mortgage indebtedness. Again, some enumerators failed from time to time to ask all of the questions on the schedules. In such cases it was usually necessary to resort to correspondence with the farmers, and even then it was not always found possible to secure the information.

Some small mistakes have doubtless crept into the statistics because of duplication between the reports given by owners of land and by tenants of the same land. A considerable number of cases were discovered in which farm operators who owned some land which they did not operate but leased to others reported as to all the land which they owned rather than as to that which they operated, while the tenants in turn reported, usually to other enumerators, as to the land occupied by them. Under such conditions there was duplication of farm acreage, of values of farm property, and sometimes of farm products. Efforts were made in the office work to remedy this defect, and it is believed that most of the duplications were successfully eliminated. Further, slight duplications sometimes occurred because part of a farm lay in one enumeration district and part in another. These duplications, however, were very largely if not entirely eliminated in the office.

All schedules turned in to the office by the enumerators were carefully scrutinized by employees of the Bureau of the Census, and wherever answers were found inconsistent, farmers were communicated with directly, and errors which had crept in were corrected whenever it was possible to discover them.

Altogether the statistics showing the status of the agricultural industry on April 15, 1910, may be said

to be as nearly accurate as can be expected under the present system of using large complicated schedules and employing temporary enumerators.

**Data pertaining to 1909.**—The question of the accuracy of statistics which pertain to the acreage and production of crops and the production of other farm products during the calendar year 1909 involves further consideration. At best it can not be claimed that the statistics showing the products of the farms during 1909 are as accurate as the statistics showing the status of agriculture at a given date in 1910. The statistics of the major crops are doubtless substantially accurate, but those of minor crops and of live stock products leave a good deal to be desired.

One of the greatest sources of error lies in the fact that large numbers of farmers did not in 1909 operate the farms which they occupied at the date of enumeration in 1910. Yet in each case, in order to avoid duplication and confusion, it was necessary to ask the farmer regarding the activities in 1909 of the farm he occupied in 1910.

The census schedules of 1910 contained the question: "How long has this farmer operated this farm? \_\_\_\_\_ years \_\_\_\_\_ months." Of the 6,361,502 farmers in the United States 5,794,768, or 91.1 per cent, reported the term of occupancy in apparently proper form, the other 566,734 either failing to answer or reporting their entire period of residence on the farm, including that in childhood, rather than the number of years during which they had operated it. Of the 5,794,768 farmers who reported the term of occupancy, 1,000,293 reported "less than 1 year." This was 17.3 per cent of all those reporting. A large proportion of these were tenant farmers. In many cases farmers who had occupied their farms less than a year had had little or nothing to do with those farms in 1909, and consequently had no direct personal knowledge concerning the farm products of that year. In such cases they could often judge the acreage of the principal crops from the stubble, but would have greater difficulty in furnishing information as to yields of crops and as to production of live stock products. In some cases, of course, such farmers had fairly definite information because they had lived during 1909 on some farm near to the one occupied in 1910 or because they had obtained such information from the previous occupant of the farm.

It is believed that statistics pertaining to the minor crops are less accurate than those pertaining to the major crops. Not all of the minor crops were listed by name on the farm schedules, and it was left for the enumerator to ask the farmer whether there were any special crops which he considered worth reporting, or for the farmer to volunteer information. Doubtless many farmers raised small amounts of such unlisted crops, but failed to report them. The unlisted crops, however, are of very little importance in the country as a whole.

Even as to crops listed less attention was likely to be given to those of little importance than to major

crops. It should be noted, moreover, that a crop which may be very important in some sections of the country may be unimportant in others. In a district where apples, for example, are seldom grown enumerators would be likely to omit asking farmers whether this crop was grown, and even if they asked the question the returns would be likely to prove less accurate than those in districts where apples are an important crop.

The probable incompleteness of the returns of crops unimportant in all parts of the country and of the returns for important crops in parts of the country where they were unimportant has, however, very little effect either upon the statistics of the total production of any important crop in the country as a whole or upon those showing the combined value of all crops for any given county or state.

What has just been stated with reference to the returns for crops is equally true with reference to those for live stock products and for domestic animals sold or slaughtered on farms. But here an added difficulty appears. The number of acres of a crop harvested in a given year is a reasonably definite thing; and even if the exact quantity produced can not be recalled by the farmer, he can estimate it fairly well by applying an approximate average yield per acre to the known acreage. Moreover in the case of most crops the entire product is harvested or gathered practically at one season of the year and generally within a very few days or weeks, and, at least as to major crops, the farmers usually have in mind clearly not only the acreage harvested but also the amount of each crop produced. Conditions as to live stock products are quite different. For example, the farmers of course know the number of dairy cows on their farms at the time the farm is visited by the enumerator, but on many farms the number varies at different seasons of the year, and the changes may not be clearly recalled by the farmer after the close of the year. Any attempt to calculate the production of milk or other dairy products from the number of cows, therefore, encounters difficulty. In the case of live stock products small amounts are secured day by day. During some seasons of the year the average production—such as the number of dozens of eggs or the number of gallons of milk—per day, per week, or per month is very small, whereas at other seasons it is much larger. Farmers, generally speaking, do not keep books and have no definite system of accounts. It is usually necessary for them to estimate the amount and value of live stock products secured during the preceding year. Many farmers, particularly those who make this an important business, are able to estimate closely, but some make very unsatisfactory estimates, while a considerable number are unwilling to make any estimates at all.

At former censuses rules were adopted for making office estimates in the case of schedules in which data as to live stock products were partly missing or were obviously incorrect. It was thought that the errors

in these estimates would largely balance each other and the totals be approximately correct. At the census of 1910, however, it was deemed best, in cases where farmers failed to report or gave evidently erroneous returns, to make no estimates, but merely to carry a tabulation showing the number of animals or the number of fowls or colonies of bees, etc., on the farms for which no product was reported or none tabulated. Tabulations were made of all returns which seemed to the bureau to be reasonable. Generally speaking, from 80 to 95 per cent of the schedules carried what seemed to be satisfactory answers regarding the various classes of live stock products, and it is believed that the statistics published are reasonably reliable, although no claim is made to absolute

accuracy. Some estimates have also been made as to the total production of certain live stock products, but they are expressly designated as estimates and the basis for them is clearly stated in the reports.

To summarize, it may be stated that the statistics pertaining to farm crops for 1909 are not as accurate as the statistics showing the status of farms and of the agricultural industry at the time the census was taken (April 15, 1910); that the statistics pertaining to minor or secondary crops are less accurate than those pertaining to major crops; that statistics for major crops are more accurate for districts where those crops predominate than elsewhere; and that statistics pertaining to live stock products are less accurate than those for major crops.

#### DEFINITIONS.

In order to secure comparability for the statistics of agriculture, the Bureau of the Census provided the enumerators with instructions covering the more important terms contained in the provisions of the law. This was necessary, first, in order that statistics secured by enumerators in the different districts should be comparable and, second, in order to secure, as far as possible, statistics comparable with those of former censuses. An effort was made to furnish a set of rules which would be easily understood by the enumerators. It can not be supposed that in all cases enumerators understood and followed accurately the instructions, but there is no reason to doubt that most of them did so.

**Definition of "farm."**—The definition of a farm furnished to enumerators at the census of 1910 was essentially as follows:

A "farm" for census purposes is all the land which is directly farmed by one person managing and conducting agricultural operations, either by his own labor alone or with the assistance of members of his household or hired employees. The term "agricultural operations" is used as a general term referring to the work of growing crops, producing other agricultural products, and raising animals, fowls, and bees.

A "farm" as thus defined may consist of a single tract of land, or of a number of separate and distinct tracts, and these several tracts may be held under different tenures, as where one tract is owned by the farmer and another tract is hired by him. Further, when a landowner has one or more tenants, renters, croppers, or managers, the land operated by each is considered a "farm."

In applying the foregoing definition of a "farm" for census purposes, enumerators were instructed to report as a "farm" any tract of 3 or more acres used for agricultural operations, no matter what the value of the product raised upon the land or the amount of labor involved in operating the same in 1909. In addition, they were instructed to report as farms all tracts containing less than 3 acres which either produced at least \$250 worth of farm products in the year 1909 or required for their agricultural operations the continuous services of at least one person. The enumerators were further instructed to return farm schedules for all institutions which conducted agri-

cultural operations, but to report as the farms of such institutions only the lands which were actually used by them for agricultural operations.

The Census Bureau did not attempt to secure a report of the acreage and value of all land suitable for agriculture. It did not take any account of such land held solely for speculative purposes and not actually utilized for agricultural production. It did not account for land owned by states or by the United States, or of land occupied by forests if not in the same tract as land used for agriculture.

Some land actually used for agricultural purposes was also not covered by the census. Thus, in cities, towns, and villages probably tens of thousands of families use vacant lots or parts of residence lots for small agricultural operations. Considerable numbers of small tracts outside of such places are similarly used. These small agricultural operations usually consist in raising vegetables or in keeping small numbers of fowls or domestic animals, and even in the aggregate are of no very great importance.

There have been some changes from census to census in the definition of a farm. The first comprehensive census of agriculture was taken in 1850. The authorities in charge of that census recognized the necessity of establishing a limit below which no tract of land used for agricultural purposes should be considered a farm. The instructions upon this point issued to the marshals collecting the data in 1850 were as follows:

The returns of all farms, or plantations, the produce of which amounts to \$100 in value are to be included in this schedule; but it is not intended to include the returns of small lots, owned or worked by persons following mechanical or other pursuits, where the productions are not \$100 in value.

No instructions upon this subject were given to the enumerators in 1860. In 1870, and again in 1880, the instructions were as follows:

"Farms," for the purposes of the agricultural schedule, include all considerable nurseries, orchards, and market gardens, which are owned by separate parties, which are cultivated for pecuniary profit, and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a por-

tion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres unless \$500 worth of produce has been actually sold off from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable values are produced. A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot or sheep pasture, even if in another subdivision, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a farm is to be reported.

These instructions were slightly modified in 1890, as follows:

A person who cultivates a farm is not to be regarded as hiring it if he works for a definite and fixed compensation in money or fixed quantity of produce, but he is to be regarded as hiring it if he pays a rental for it or is to receive a share of the produce, even though he may be subject to some direction and control by the owner. "Farms," for the purposes of the agricultural schedule, include, besides what are commonly known as farms, all considerable nurseries, orchards, and market gardens owned by separate parties which are cultivated for pecuniary profit and employ as much as the labor of one able-bodied workman during the year. Mere cabbage and potato patches, family vegetable gardens, and ornamental lawns, not constituting a portion of a farm for general agricultural purposes, will be excluded. No farm will be reported of less than 3 acres unless \$500 worth of produce has been actually sold from it during the year. The latter proviso will allow the inclusion of many market gardens in the neighborhood of large cities, where, although the area is small, a high state of cultivation is maintained and considerable values are produced. A farm is what is owned or leased by one man and cultivated under his care. A distant wood lot or sheep pasture, even if in another subdivision or district, is to be treated as a part of the farm; but wherever there is a resident overseer, or a manager, there a separate farm is to be reported.

In accordance with these instructions farms and establishments containing less than 3 acres were not reported in 1870, 1880, or 1890, unless they sold in the census year at least \$500 worth of products. The authorities in charge of the census of 1900 noted that the land occupied and the products secured by very many persons devoting their entire time to caring for small dairies, apiaries, florists' establishments, and kindred agricultural establishments were omitted from the agricultural reports, although these persons were included in the occupation tables of the population reports as dairymen, apiarists, florists, etc. The omission in the one case and inclusion in the other accounted in part for the wide discrepancy between the statistics of occupations and those of agriculture as published at previous censuses.

By reason of these facts the rule previously employed with reference to the amount of sales was omitted at the Twelfth Census, and all agricultural enterprises were reported as farms except that market, truck, and fruit gardens, orchards, nurseries, cranberry marshes, greenhouses, and city dairies were not to be so reported unless their operation or management required the constant services of at least one individual. The instructions issued to the enumerators were as follows:

A farm, for census purposes, includes all the land under one management, used for raising crops and pasturing live stock, with the

wood lots, swamps, meadows, etc., connected therewith, whether consisting of one tract or of several separate tracts. It also includes the house in which the farmer resides, and all other buildings used by him in connection with his farming operations, together with the land upon which they are located. If the individual conducting a farm resides in a house not located upon the land used by him for farm purposes, and his chief occupation is farming, the house and lot on which it is located are a part of the farm. If, however, he devotes the greater portion of his time to some other occupation, the house in which he resides is not a part of the farm. If the land owned by an individual, firm, or corporation is operated in part by the owner and in part by one or more tenants or managers, or if the land is wholly operated by tenants or managers, the portion of the land occupied by each is a farm, and must be reported in the name of the individual or individuals operating it. No land cultivated under the direction of others is to be included in the report of the land operated by the owner. For census purposes, market, truck, and fruit gardens, orchards, nurseries, cranberry marshes, greenhouses, and city dairies are "farms." *Provided*, The entire time of at least one individual is devoted to their care. This statement, however, does not refer to gardens in cities or towns which are maintained by persons for the use or enjoyment of their families and not for gain. Public institutions, as almshouses, insane asylums, etc., cultivating large vegetable or fruit gardens, or carrying on other agricultural work, are to be considered farms.

By these instructions the word "farm" was given a meaning practically identical with that in the minds of the authorities in charge of the census of agriculture in 1850, when the only limitation was that which provided that small lots owned or worked by persons following mechanical or other pursuits should not be reported if the products were valued at less than \$100.

The effect of the changes made from census to census in the definition of a "farm" is seen most conspicuously in the statistics of the number of "farms" less than 3 acres in size. That number was published at the censuses of 1880, 1900, and 1910, but not at other censuses. When the census was taken in 1880, the enumerators were instructed as follows: "No farm will be reported of less than 3 acres unless \$500 worth of products has been actually sold off from it during the year." The number of places under 3 acres in size reported was 4,352, or only one-tenth of 1 per cent of all farms in the United States. At the census of 1890, when the same rule applied, the smallest size group of farms shown was that of farms under 10 acres.

At the census of 1900, 41,385 places under 3 acres in size were reported as farms, an immense increase over the number in 1880. This increase was largely due to the difference in the definition of farms. In tabulating the returns in 1900, however, these places of under 3 acres were separated into a number of groups according to the value of products. This tabulation showed only 7,853 such places which reported farm products valued at \$500 or more in 1899. It is believed that this figure (7,853) is fairly comparable with the figure for 1880 (4,352).

The number of farms of less than 3 acres returned in 1910 was very much smaller than the number of such farms returned in 1900. There is no reason whatever to suppose that this represented any actual decrease in the number of small farms. The decline shown in the census reports must be attributed solely



to differences in the instructions as to what constitutes a farm, in the interpretation of these instructions by the enumerators, and in the definition as finally adopted by the office. The enumerators at the census of 1910 may naturally and properly have been much influenced by the fact that the instructions made a distinction—not made at the census of 1900—between places of 3 acres or more and those of smaller size, and by reason of this distinction may have given special consideration to the propriety of including places of less than 3 acres. According to the instructions, already quoted, these small places were to be included provided they either produced at least \$250 worth of farm products in the year 1909 or required for agricultural operations the continuous services of at least one person. As a matter of fact the number of places of less than 3 acres reported as farms on which the products of 1909, as shown in the schedule, amounted to less than \$250 in value was very small. Moreover, the Census Bureau decided after the enumeration that it would be best to exclude all such places in the tabulation of the returns, thus modifying the original definition of a farm in this particular. In other words, the number of "farms" of less than 3 acres, as shown in the tables for 1910, includes only places reporting products to the value of \$250 or over. In 1900, on the other hand, as shown by the special tabulation referred to above, a large majority of the places assigned to this classification reported a value of products of less than \$250. The 1910 figures should be closely comparable, therefore, with the number of places under 3 acres in size in 1900 which reported products to the value of \$250 or over—12,328 out of a total of 41,385 such places reported as farms in that year. As compared with this number, the number shown for 1910 (18,033) represents an increase of 46.3 per cent, in place of the apparent decrease of 56.4 per cent which is indicated by a comparison with the published total for 1900.

It is evident that a good many places reported as farms in 1900 should not have been considered as such, although the instructions may have justified their inclusion. Apparently there were included large numbers of places which were, in fact, merely the suburban or country residences of prosperous townspeople or the homes of people engaged mainly in other occupations than farming—places on which some crops of little importance might be raised or a cow or horse kept. The tables for the 1910 report, on the other hand, include very few places of less than 3 acres which would not be generally regarded as farms in popular estimation and probably include practically all that would be so regarded.

In the comparative tables giving statistics for farms of the different size groups for 1910 and 1900, respectively, the 1900 figures for farms of less than 3 acres are given as reported, including those that had products valued at less than \$250, as well as those that had products of greater value. This course is followed

because it would be impossible without great expense to eliminate from the statistics of acreage, value of farm property, domestic animals, crops, etc., the small numbers or amounts relating to farms of less than 3 acres which had products in 1899 valued at less than \$250.

Partly by reason of the changes in the form of the instructions as to what should be considered a farm and partly by reason of changes in office practice as to handling the schedules returned by the enumerators, a good deal of land in tracts of more than 3 acres was excluded from the tables for the 1910 census which would have been included in those for the 1900 census. At the census of 1900 many tracts of swamp land, of rocky and even mountainous land, and of semiarid, if not arid, land were reported as farms, despite the fact that they were used little, if at all, for agricultural production, and would not be looked upon as farms under any ordinary interpretation of the term. This fact is well brought out by reference to Table 4, Part I, of the Report on Agriculture for 1900. This shows that 53,353 farms reported nothing under the heading of "value of farm products not fed to live stock." Of these, 1,283 were places of 1,000 acres and over. Moreover, 167,493 other farms reported the value of farm products not fed to live stock as under \$50. Of these, 596 were tracts of land of 1,000 acres and over. A good many tracts with little or no agricultural production were also reported as farms by the enumerators in 1910, but under the office rules these were excluded from the tables unless it was clear from the statements on the schedule that they were actually farms in the ordinary sense.

Some of the decreases in number of farms and in farm acreage shown for certain parts of the country are, therefore, doubtless due to the change of interpretation as to the term farm.

**Definitions of the classes of farmers.**—The instructions to enumerators in 1910 contained a definition of the term "farmer" or "farm operator." Various classes of farm operators were also carefully distinguished. The classification was as follows:

A "farmer" or "farm operator," according to the census definition, is a person who directs the operations of a farm. Hence, owners of farms who do not themselves direct the farm operations are not reported as "farmers." Farmers are divided by the Bureau of the Census into three general classes, according to the character of their tenure, namely, farm owners, farm tenants, and farm managers.

*Farm owners* include (1) farmers operating their own land only, and (2) those operating both their own land and some land hired from others.

*Farm tenants* are farmers who, as tenants, renters, or croppers, operate hired land only. They were reported in 1910 in three classes: (1) *Share tenants*—those who pay a certain share of the products, as one-half, one-third, or one-quarter; (2) *share-cash tenants*—those who pay a share of the products for part of the land rented by them and cash for part, as cash for pasture or garden and a share of all the crops grown on plowed land; and (3) *cash tenants*—those who pay cash rental or a stated amount of labor or products, such as \$7, 10 bushels of wheat, or 100 pounds of cotton per acre. All

tenants who did not specify whether they rented for cash or for a share of the products, or both, are tabulated as having "tenure not specified."

*Managers* are farmers who are conducting farm operations for the owner for wages or a salary.

At the census of 1900 and again in 1910 a special class of farms referred to as "owner and tenant" farms was recognized in the instructions. This was intended to cover the case of a farm operated jointly by an owner and his tenant. Inasmuch as the number of such cases is very limited, and inasmuch as in such cases the owner is often a parent and the tenant a son or other member of the family, it was decided to disregard this class in the tabulations of the census of 1910, consolidating it with the class of farms operated by their owners.

On the other hand, experience at previous censuses demonstrated that many farms operated by tenants are paid for partly in cash and partly on the share basis. It was thought best, therefore, at the census of 1910 to recognize an intermediate class between share tenants and cash tenants. This class was referred to as "share-cash tenants."

Where the enumerator reported a farm operator as a tenant but failed to specify to which of the three classes of tenants he belonged, the operator was classed under a group designated as "tenants with character of contract unknown," or more briefly, as "not specified." Further details on this subject will be found in Chapter II.

**Definitions of the classes of farm land.**—Section 8 of the Thirteenth Census act provided that the schedules relating to agriculture should call for the acreage of woodland on farms. In order that this provision might be carried into effect, definitions of farm land and of the various classes thereof were given in substantially the following form in the instructions to enumerators:

Farm land is divided into (1) improved land, (2) woodland, and (3) all other unimproved land. *Improved land* includes all land regularly tilled or mowed, land pastured and cropped in rotation, land lying fallow, land in gardens, orchards, vineyards, and nurseries, and land occupied by farm buildings. *Woodland* includes all land covered with natural or planted forest trees, which produce, or later may produce, firewood or other forest products. *All other unimproved land* includes brush land, rough or stony land, swamp land, and any other land which is not improved or in forests.

The classification in 1880 was substantially similar, as was that in 1890 and 1900, except that at these two censuses woodland was not distinguished from other unimproved land.

The census classification of farm land as "improved land," "woodland," and "all other unimproved land" is one not always easy for the farmers or enumerators to make. Statistics for these three classes of land may be considered fairly close approximations, but enumerators and farmers in different parts of the United States may have interpreted these definitions somewhat differently, and at the different censuses they may, even in the same locality, have put slightly different interpretations upon them.

#### METHOD OF PRESENTING STATISTICS.

As already stated, the present volume is a summary and general presentation of the results of the census of agriculture.

**Statistics for states, divisions, and sections.**—In most cases the tables of this volume give figures for each state as well as for the United States as a whole. Because, however, of the large number of states, and for other reasons, it is extremely difficult to indicate the broad geographical conditions regarding the status of agriculture and agricultural production by means of the statistics for individual states. In addition, therefore, to the presentation of statistics by states, this volume gives statistics for nine groups of states which are designated as geographic divisions. The states which constitute the respective divisions can be easily ascertained by reference to any of the general tables or to the accompanying maps.

This plan reduces the comparisons necessary to a general understanding of the geographic differences in conditions to a number which can be readily grasped. The states within each of these divisions are for the most part fairly homogeneous in physical characteristics as well as in the characteristics of their population and their economic and agricultural conditions, while, on the other hand, each division differs more or less sharply from most others in these respects. In

forming these groups of states the lines have been based partly on physical and partly on historical conditions. These nine geographic divisions are sometimes grouped in the text tables into three great sections—the North, which includes the New England, Middle Atlantic, East North Central, and West North Central divisions; the South, which includes the South Atlantic, East South Central, and West South Central divisions; and the West, which includes the Mountain and Pacific divisions. In addition to these classifications the states and divisions are sometimes grouped in text tables into two great sections—that east of the Mississippi River and that west.

The grouping of the states in geographic divisions has facilitated a geographical rather than an alphabetical order in the tables which present the results for the individual states. The advantage of this geographical order lies chiefly in the ease with which conditions in contiguous states can be compared.

Statistics by counties are not given in any of the chapters of this volume which deal with a specified subject, but Chapter X consists of a single table in which the most important agricultural data are presented by counties. Other county figures appear only in Volumes VI and VII of the Census Reports.



**Comparative and derivative figures.**—Both in the general tables and in the text discussion an effort has been made to enhance the value of the statistics for the census of 1910 by the introduction of comparative figures for earlier censuses and by the presentation of important ratios, averages, and percentages. The full significance of the census data is brought out only by comparisons between different censuses for the same area and between different states or geographical areas for the same census, and comparisons based upon absolute numbers are usually much less instructive and less readily grasped than those based upon percentages and averages.

**Text discussion of tables.**—The general aspects of the statistics presented in tabular form are briefly discussed in the accompanying text. This explanatory text serves the purpose of calling attention to certain important results of the census inquiry. It is not intended that this text shall present an exhaustive analysis of the statistics. In the main, therefore, the discussion is confined to the facts disclosed by the census concerning the United States as a whole and the geographic divisions and sections, with only occasional reference to the figures for individual states. This general discussion, however, should serve as a guide to

the interpretation of the figures for the smaller geographic units and should likewise be useful in preventing erroneous conclusions which might occasionally be drawn from the consideration of an isolated table without taking into account its relation to other census data.

In the presentation of the results of the census of agriculture by subjects, the text and tables relative to each subject have been treated as a unit, the tables being either inserted in the text or placed immediately after it. This represents to some extent a departure from the practice, followed in many census reports, of printing the general tables at the end of the volume and the text comment at the beginning, but it is believed to effect a distinct gain for those who consult the volume to study a given subject. At the same time those who merely refer to it for some particular figure will readily find it with the aid of the table of contents.

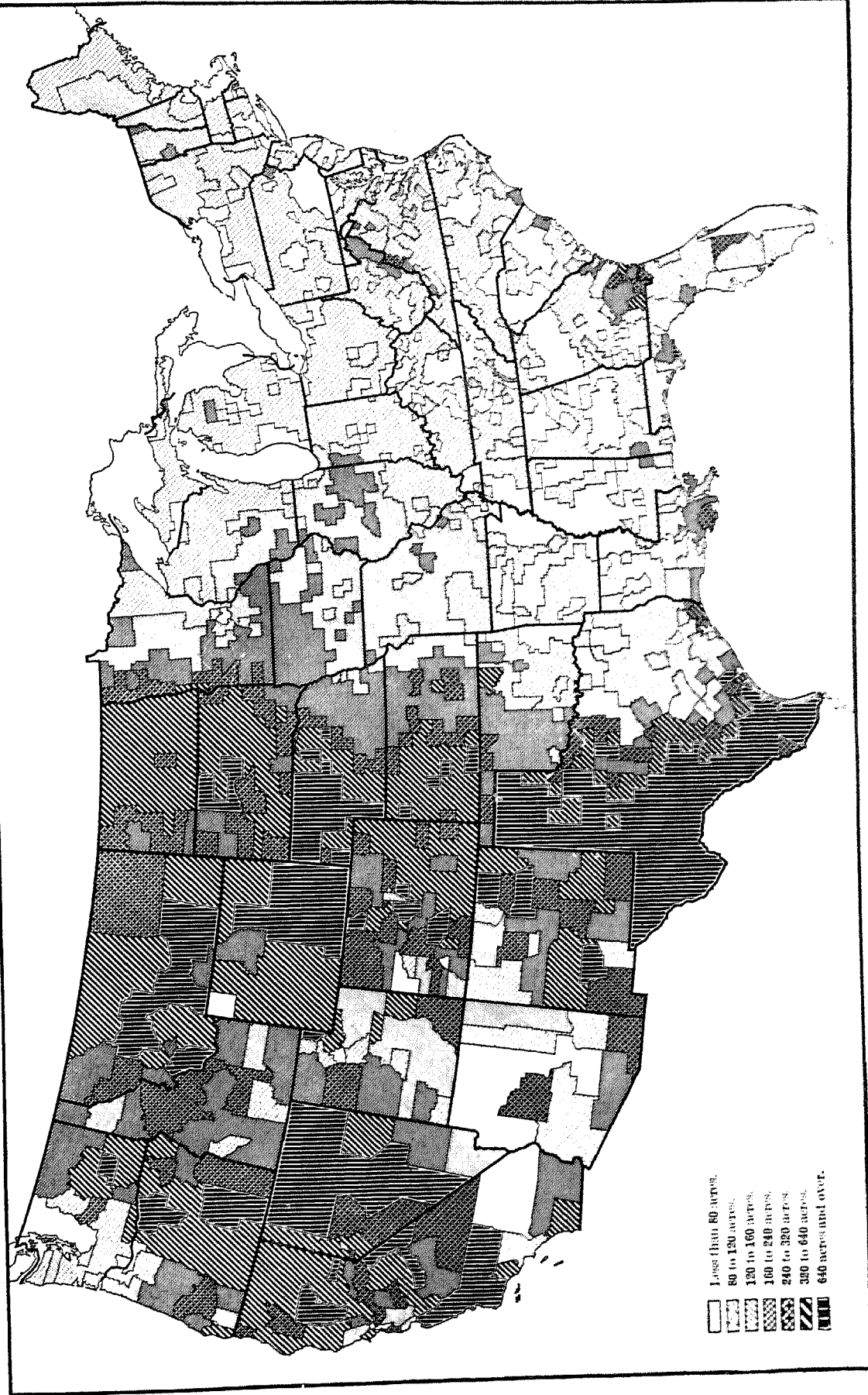
Maps and diagrams have been employed in this volume to present graphically some of the most important facts ascertained by the census, and have, as far as possible, like the tables, been printed in immediate connection with the discussion of the subject to which they refer.

# AVERAGE ACREAGE OF ALL LAND PER FARM: 1910.

[Average for the United States, 188.1 acres.]

Department of Commerce, Bureau of the Census.

Thirteenth Census of the United States: 1910.



# AVERAGE ACREAGE OF IMPROVED LAND PER FARM: 1910.

[Average for the United States, 75.2.]

Department of Commerce, Bureau of the Census.

Thirteenth Census of the United States: 1910.

