CHAPTER VI – FARM FACILITIES, ROADS, AND FARM MACHINERY

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CHAPTER VI-FARM FACILITIES, ROADS, AND FARM MACHINERY

Introduction .- Statistics, collected in the 1945 Census of Agriculture, which are presented in this chapter relate to specified facilities in the farm home; availability of electricity; the distance of the farm from an all-weather road; automobiles, motortrucks, and tractors on farms; and the value of farm implements and machinery. The figures shown represent United States, regional, division, and State totals. County figures for these items are shown in volume I. Figures for minor civil divisions (townships, precincts, etc.) are included in minor civil division table 2 which is available by counties at the cost of making copies of the table. All of the above items are also included in a separate report which presents, for a sample of the farms enumerated in the 1945 Census, data for farms in each of several classifications, such as color and tenure of the farm operator, amount of gross farm income, and size of farm. This special report also presents the data for automobiles, trucks, and tractors by year of model.

The data represent tabulations of information secured by Census enumerators for each farm.

<u>A farm</u> is defined briefly as all land on which some agricultural operations are performed by one person, either by his own labor alone or with the assistance of members of his household, or hired employees. Tracts of less than 3 acres are considered to be farms only if their agricultural products for the calendar year preceding the census date were valued at \$250 or more.

The Census definition of a farm is generally more inclusive than the usual concept. Thus, for Census purposes, farms include such specialized operations as greenhouses, nurseries, and apiaries, and such places as village lots on which gardening, poultry keeping, or other activities produce enough to meet the minimum requirements to be classified as farms. (See chapter I and facsimile of schedule and instructions in the Appendix.)

<u>Farms reporting</u>, as used in the tables, denotes the number of farms for which the specified items shown in the particular table were reported.

Thus, of the 5,859,169 farms in the United States, 3,485,489 reported an electric distribution line within 1/4 mile, and 2,787,624 reported electricity in the farm dwelling. In general, the farms reporting a particular item represent the number of farms having that item or characteristic. However, enumerators occasionally failed to obtain information for every inquiry. Therefore, the number of farms reporting represents a minimum number having a particular item or characteristic.

Presentation of the statistics. — The statistics are presented in such manner as to provide an over-all picture for the United States, for the major geographic areas of the country, and for the several States. The data have been arranged to facilitate comparison of one region, or one State, with another. Averages, percentages, and other derived data are provided as aids in using and analyzing the statistics. As a further aid in analyzing the statistics, particularly those on facilities, tables 4 and 18 provide data on the total number of farms, farms with dwellings, and farms with resident operators, also the number of rural farm dwellings enumerated in the 1940 Census of Housing. Tables 4 and 19, showing numbers of horses and mules and acres of cropland harvested, supplement the presentation of data for farm tractors.

Comparative data are also given to provide a measure of the changes that have occurred from census to census. In presenting statistics for earlier census years, headnotes, footnotes, or the wording of the stub or column headings indicates any significant lack of comparability which may have resulted from changes in the wording of the inquiries, in the instructions or definitions, or in the procedures followed in collecting and compling the data. The text discussions for the various items give further information in regard to the comparability of the data. The tabular presentation is supplemented by a visual, or graphic, presentation through the use of maps and charts.

The tabular presentation consists of a series of summary tables giving figures for the United States as a whole, followed by tables showing data by regions, divisions, and States. In

the tables presenting State rigures, the States are arranged in geographic order to facilitate comparisons among States in the same general area. An outline map showing the States and the geographic divisions and regions appears in the Introduction to this volume.

The items included in each table were selected with the view of facilitating comparisons of as large a number of related items as possible. For example, some of the tables provide for comparison of the 1945 Census data for selected items while others bring together figures for several censuses. Thus the same data may be found in several tables, depending upon the objective of the particular table. In general, the United States, or summary, tables permitted the bringing together of more related data and the showing of more historical and derived data than was practicable in the division and State tables.

A series of accompanying dot maps show the geographic distribution of farms having the specified facilities, machinery, etc. These maps were prepared on a county-unit basis. Thus, for the map showing farm tractors for which 1 dot equals 500 tractors, any county having as many as 250 tractors, but less than 750 tractors, has 1 dot. Counties having less than 250 tractors do not have any dots. Thus Georgia, with 24,648 tractors, has only 27 dots, not 49. A number of bar charts give a graphic picture of the relative numbers of farms having the various facilities, the historical changes in the number of farms having various facilities and machinery, and the relative numbers of farms grouped according to the value of farm implements and machinery.

Farm facilities .- The number of farms having various facilities was obtained by the inquiries "Does farm dwelling have-Running water? Electricity? Radio? Telephone?" Provision was made for replies of "Yes" or "No" for each item. Farms were classified on the basis of the replies into three groups: (1) those with the facility in the farm dwelling, (2) those without the facility, and (3) those not reporting in respect to the facility. The second group, farms without the facility, include all the 137,266 farms without a dwelling plus those with a dwelling for which the reply in respect to that facility was "No." Table 5 gives a count by States of the farms without a dwelling, as well as a count of all farms without each facility, thus making it possible to obtain, by subtraction, a count of farms with dwellings for which a "No" reply was recorded. The third group, farms not reporting in respect to each facility, is restricted to a count of farms with dwellings for which replies of either "Yes" or "No" were omitted. As previously stated all farms without dwellings were included in the second group.

The schedule provided for replies for only one dwelling for each farm. For farms having two or more dwellings the instructions did not specify which dwelling was to be considered. The enumerator may have entered replies in terms of the operator's dwelling only, in terms of a dwelling other than that of the operator, or perhaps all dwellings may have been considered.

In addition to the inquiry on electricity in the farm dwelling, a second inquiry determined the availability of electricity for a farm by asking whether there was an "Electric distribution line within 1/4 mile of the farm dwelling?" Instructions were given that, if there was no dwelling, the inquiry should refer to the farm buildings and, if no buildings, to the main farm entrance. The main farm entrance was defined as the point where the operator usually turned off the public road (or off the private road) giving access to the farm. Therefore, the classification of farms in respect to electric distribution line within 1/4 mile is not affected by whether or not there is a dwelling on the farm.

Supplemental tabulations provided for a count of residentoperator farms having each of the various facilities; also for counts of farms having several combinations of facilities. Thus the number of farms not using electricity, when available from an electric distribution line, was determined by a count of farms within 1/4 mile of an electric distribution line that did not report electricity in the farm dwelling. This count was restricted to farms with dwellings.

CENSUS OF AGRICULTURE: 1945

Table 1.---SPECIFIED FARM FACILITIES FOR THE UNITED STATES: 1920 TO 1945

[Figures for divisions and States in tables 5 to 10]

ELECTRIC DISTRIBUTION LINE WITHIN & MILE			RADIOS				
. ITEM AND YEAR	Number of farms	Percent of all farms	ITEM AND YEAR	Number of farms	Percent of all farms		
Not within 2 mile	2,780,207	59,5 45.6 38.1 50.8 2.4 3.6	Farms classified as to radio: With radio	284,006 1,529,069 66,093	72 4 26 1 70		
Within 1 mile of an electric distribution line, but without electricity in dwelling 1	806,305 926,958	13.8 15.2	ITEM AND YEAR	Number of occupied dwelling units	Percen of all occupie dwellin units		
"ITEM AND YEAR	Number of farms	Percent of all farms	Occupied dwelling units classified as to radio: With radio	2,751,669	58 38 2		
Farms classified as to electricity in farm dwelling: With electricity- In farm dwelling1945	2,787,624	47.6	TRLEPHONES				
1940 Resident-operator farms	2,032,316	33.3 45.8 13.4 7.0	ITEM AND YEAR	Number of famms	Percent of all farms		
Without electricity ³	3,006,366 65,179	51.3 1.1 25.6		1,866,109 1,526,954 2,139,194	31 25 34		
ITEM AND YEAR	Number of dwelling units	Percent of all dwelling units	1920 Without telephone ³	2,498,493 3,916,987 4,166,743 76,073	38 66 68 1		
Rural-farm-dwelling units classified as to electricity: With electricity		30.8 67.5 1.7	1940 Resident-operator farms with telephone		50 -		
RUNNING WATER			Electric distribution line within 1 mile	1,401,662	24 25 50 27		
ITEM AND YEAR	Number of farms	Percent of all farms	¹ Includes farms not reporting in respect to electricity in d exclude farms without dwellings.	welling; 1	945 figur		
Farme classified as to running water in dwelling: With running water— In farm dwelling		28.7 27.5 15.8 10.0 70.1 1.2	PSchedule inquiry in 1980 specified farmer's dwelling mouse ³ Includes 137,266 farms without dwellings reported. ⁴ Schedule inquiry in 1945 specified in farm dwelling; in 192 ⁶ Schedule inquiry in 1945 specified in farm dwelling; prior ified on farm. 1940 includes 39.069. For	5, on farm, censuses me	arely spec		
ITEM AND YEAR	Number of dwelling units	Percent of all dwelling units	with dwellings lighted by electricity from home p		•		
 Rural-farm dwelling units classified as to running water: With running water		17.5 81.2 1.2	electricity from home p	lants			

FARM FACILITIES, ROADS, AND FARM MACHINERY

ALL FARMS; AND FARMS REPORTING ELECTRIC DISTRIBUTION LINE WITHIN 1/2 MILE, FARM DWELLINGS LIGHTED BY ELECTRICITY, RUNNING WATER IN FARM DWELLING, RADIOS IN FARM DWELLINGS, TELEPHONES IN FARM DWELLINGS, ALL-WEATHER ROAD, AND AUTOMOBILES, FOR THE U.S., BY REGIONS: 1945

			MILLI	ONS		
UNITED S	OTATES.) 2	2 3	5.4	ډ	5 Ģ
ALL FARMS						
ELEC.DIST. LINE	1000000000		00000000	1999		
ELECTRICITY						
RUNNING WATER	******	*****				
RADIOS	111111	mm	unn	unn	22	
TELEPHONES	XXXXXXX	000000	·			
ALL-WEATHER ROADS						
AUTOMOBILES		• • • •		• • •		
THE NOR	TH					
ALL FARMS						
ELEC. DIST. LINE				1		
ELECTRICITY		77772° '		. 1		
RUNNING WATER	*****					
RADIOS	11111	mm	2			
TELEPHONES	000000					
ALL-WEATHER ROADS			ĺ			
AUTOMOBILES						
THE SOU	тн					
ALL FARMS						
ELEC.DIST. LINE		2222				
ELECTRICITY						
RUNNING WATER	XXXX					
RADIOS	\overline{u}	1111				
TELEPHONES						
ALL-WEATHER ROADS						
AUTOMOBILES	• • • •					
THE WES	ŞΤ					
ALL FARMS						
ELEC.DIST. LINE	1512 ·					
ELECTRICITY	222					
RUNNING WATER	XXX					
RADIOS	222					
TELEPHONES	0					
ALL-WEATHER ROADS						ľ
AUTOMOBILES	•					
ALL	FARMS			FARMS REPO	DRTING RADIO	s

FARMS REPORTING ELECTRIC DISTRIBUTION LINE WITHIN 14 MILE

TARMS REPORTING RUNNING WATER

FARMS REPORTING TELEPHONES

This count also makes possible a rough calculation of the number of farms with electricity that are dependent upon home lighting plants. Farms within 1/4 mile of an electric distribution line that had electricity from a home lighting plant would be excluded in such a calculation. In 1940, out of a total of 179,067 farms reporting electricity from a home lighting plant, 39,069, or 21.8 percent, were within 1/4 mile of an electric distribution line. Such a calculation would also be subject to considerable error, because the result would include that portion of the 137,266 farms without dwellings reported which were within 1/4 mile of an electric distribution line. Additional error might be caused by farms which obtained electricity from power line and reported electricity in the farm dwelling but failed to report an electric distribution line within 1/4 mile. There were 140,680 farms for which no reports were obtained as to whether or not an electric distribution line was within 1/4 mile of the farm. Undoubtedly some of these farms had electricity from a power line. For these reasons no calculation of the number of farms with home lighting plants is included in the tables. However, for those wishing to make the calculation knowing that it would be subject to considerable error the method is as follows:

1. From the number of farms reported as being within $\frac{1}{2}$ mile of an electric distribution line, subtract that portion that did not have (or did not report) electricity in the farm dwelling. For the United States, this would be 3,485,489 - 806,305 $\stackrel{\scriptstyle{\scriptstyle \rm M}}{=}$ 2,679,184.

2. Subtract this remainder from the total number of farms reporting electricity in the farm dwelling. For the United States, this would be $2,787,624 - 2,679,184 \le 108,440$, a rough estimate of the number of farms with home lighting plants.

Information on facilities was first secured at the 1920 Census of Agriculture. Information was obtained in 1920 for running water, electricity, and telephones; in 1925 for radios; in 1930 for running water, electricity, and telephones; and in 1940 for electricity, electric distribution line, and telephones. Information on facilities was also obtained at the 1940 Census of Housing and included water supply, lighting equipment, and radios. Although comparative figures from the Census of Housing are included in the tables, allowance must be made for certain differences when making comparisons.

The Census of Agriculture figures refer to the number of farms classified as to whether eouipped with the various facilities, while the figures for the 1940 Census of Housing refer to the number of rural-farm dwellings classified in respect to these facilities. Therefore, allowance must be made for farms having two or more dwellings and for farms without dwellings. In most States, the number of rural-farm dwellings is a little larger than the number of farms, therefore, the number of ruralfarm dwellings equipped with facilities would be expected to be somewhat larger than the number of farms equipped with facilities. The extra dwellings not equipped with facilities which were recorded by the Census of Housing will be partially offset by farms without dwellings which were included in the Census of Agriculture as being without facilities. Allowance must also be made for some difference in the concept of "a farm" as used in the Census of Housing and in the Census of Agriculture and for the fact that the Census of Agriculture includes figures for urban as well as for rural farms. In a farm census, information is obtained for places enumerated as farms and is limited to such places. In the 1940 Census of Housing, it is probable that farm residence of households was, in general, given a broader interpretation, despite a tendency to omit population on places which qualify as farms under the Census definition, but which are not locally thought of as farms. Dwellings rented to other than farm operators, although not considered farm dwellings in the 1945 Census of Agriculture, were not specifically excluded in the 1940 Census of Housing. Thus, many dwellings were included which were occupied by families having no connection with the operation of farms.

Information for electricity was obtained in 1940 in the Census of Housing and also in the Census of Agriculture. As this item, therefore, provides an indication of the differences resulting from the two approaches, both sets of figures for 1940 are included in the tables.

Figures for the several facilities as obtained at the various censuses of agriculture may not be fully comparable because of differences in the wording of the inquiries. For example,

PERCENT OF FARMS REPORTING ELECTRIC DISTRIBUTION LINE WITHIN ONE-FOURTH MILE, FARM DWELLINGS LIGHTED BY ELECTRICITY, RUNNING WATER IN FARM DWELLINGS, RADIOS, AND TELEPHONES, FOR THE UNITED STATES: 1920 TO 1945



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the 1920 inquiries for water and electricity referred to the "operator's dwelling" and those for 1930 to the "farmer's dwelling." It is not believed that this wording necessarily restricted the replies to farms with resident operators and it may have resulted in the inclusion of facilities for some operator residences not on farms. Tabulations of the 1945 returns on the basis of residence of the operator provide for a comparison of statistics for all farms or for farms with resident operators. In 1945, there were 399,328 farms in the United States on which there were no resident operators reported. Of these farms, 229,521 had no dwellings, or unoccupied dwellings only, while the remaining 169,807 were occupied by hired farm workers, landlords, relatives, etc. These 169,807 farms represented 2.9 percent of all farms. In the following table the facilities as reported for farms without resident operators are shown in comparison with those for farms of resident operators.

FARMS, WITH ANI	WITHOUT RESIDENT	OPERATORS, REPO	RTING SPECIFIED
FACILITIES IN	THE FARM DWELLIN	G, FOR THE UNITI	D STATES: 1945

	TOTA	T	FARMS RESIL OFERAT	ENT	FARMS WI THOUT RESIDENT OPERATORS		
ITEM	Number	Percent of all fams	Number	Percent of all Number farms		Percent of all farms	
All farms	5,859,169	100.0	5,459,841	93.2	399,328	6.8	
Farms reporting: Electricity Running water. Radio Telephone	1,679,023 4,264,007	28.7 72.8	2,684,022 1,613,247 4,140,671 1,805,705	45.8 27.5 70.7 30.8	103,602 65,776 123,336 60,404	1.8 1.1 2.1 1.0	

Although in 1940, 1930, and 1920, the inquiry for telephones merely specified the farm, and not the farm dwelling, it is not believed that the change in the 1945 wording had any appreciable effect on the comparability of the figures. The following table presenting statistics on farm telephones for resident-operator farms having one dwelling only and those having two or more dwellings will give some indication of the possible difference which may have resulted because of restricting the inquiry to "the farm dwelling."

RESIDENT-OPERATOR FARMS CROSS-CLASSIFIED AS TO TELEPHONES AND NUMBER OF OCCUPIED DWELLINGS, FOR THE UNITED STATES: 1945

	FARMS CLASSIFIED AS TO TELEPHONES					
RESIDENCE AND NUMBER OF DWELLINGS	Total	With tele- phones	Without tele- phomes	Not report- ing		
All farms. Resident-operator farms With 1 occupied dwelling only With 2 or more occupied dwellings	5,459,841 5,000,834	1,590,814	3,589,378 3,364,794	76,073 64,758 45,226 2,686		
Nonresident-operator farms ²	229,521 148,442	(*)	327,607 229,521 (*) (*)	(*) (*)		

*Not available. ¹ Includes 16,846 farms with resident operator reported but with no report of oc-ied dwellings. These include farms of operators living on tracts of land locally usidered as part of the farm; for example, croppers and other tenants living on tiple units (plantations) but not on the tracts operated (see chapter IV). ² Includes 62,435 farms not reporting as to residence of operator. cupied dwellings.

There is a possibility that, of the 227,270 resident-operator farms with two or more occupied dwellings which were not reported as having telephones, there may have been a telephone in the second, third, etc., dwelling. It is likely that the number of such farms with telephones would be small since most of these additional dwellings were occupied by hired farm workers. Of that portion of the 21,365 nonresident-operator farms with two or more dwellings that did not report a telephone, there is likewise a possibility that some may have had a telephone in the second, third, etc., dwelling. A few additional farms with telephones may have been omitted in the count because the telephone was in a nondwelling structure.

More farms had modern conveniences in the dwelling in 1945 than in 1940. Electric power lines had been extended until in 1945 an electric distribution line was within 1/4 mile of 3 out

of every 5 farms. Between 1940 and 1945 electricity had been made available to 705,282 farms based on the assumption that. electric current is available if within 1/4 mile of the farm. Farms using electricity increased to an even greater extent with 755,308 more farms reporting electricity in the farm dwelling in 1945 than in 1940. About 340,000 additional farm homes have running water and over 100,000 more had radios. Farms with telephones increased by 339,155, regaining a part of the 971,539 loss in telephones between 1920 and 1940.

Despite these increases a large proportion of the farm homes are still lacking in modern conveniences. Less than one-half (47.6 percent) of the farms had electricity in the farm dwelling in 1945, only 2 in 7 (28.7 percent) had running water, and less than 1 in 3 (31.8 percent) had telephones. Three out of 4 (72.8 percent), however, had radios and 3 out of 5 (62.0 percent) had automobiles. Although the greatest percentage increases between 1940 and 1945 in farms with facilities was in the South, a large proportion of the farms in this area still lacked modern facilities. In the South, as a whole, less than one-third (32.2 percent) of the farms had electricity 'in the dwelling, only about 1 in 6 (17.2 percent) had running water, and less than 1 in 8 (11.9 percent) had telephones. Three out of five (59.9 percent) had radios. In Mississippi less than 1 farm in 5 had electricity in the dwelling, only about 1 in 13 had running water, only 1 in 27 had a telephone, and less than one-half had radios.

Distance from all-weather road. - In 1945, the enumerator was instructed to indicate the distance from the farm to the nearest all-weather road.

An all-weather road was defined merely as a "road that is passable at all times and all seasons," but enumerators were instructed that "hard-surfaced roads occasionally snowbound or flooded are considered 'all-weather' roads." There were no requirements as to type of surface. If the main farm entrance was on an all-weather road, the enumerator was asked to report "O" miles; if not, to give the distance along the highway to the nearest all-weather road.

The replies, given in tenths of a mile, were grouped into six classes according to the distance reported. Since some enumerators reported the distance from the farm dwelling or farm buildings to the nearest all-weather road, rather than the distance from the main farm entrance, the reports of "O" up to

Table 2.- ROADS -- FARMS CLASSIFIED BY DISTANCE TO NEAREST ALL-WEATHER ROAD, 1945; AND BY KIND OF ROAD ADJOINING FARM, 1940, 1930, AND 1925: FOR THE UNITED STATES

[Figures for divisions and States in tables 11 and 12]

ITEM AND YEAR	Number of farms	Percent of all farms
Farms classified as to distance to nearest		
all-weather road, 1945: Distance reported, total	5,566,365	95.0
0.0 to 0.2 mile	3,771,094	64.4
0.3 to 0.5 mile	469,882	8.0
0.6 to 0.9 mile	131,055	2.2
1.0 to 1.9 miles	535,183	9.1
2.0 to 4.9 miles	452,204	7.7
5.0 miles and over	206,947	3.5
Distance not reported	292,804	5.0
Resident-operator farms within 1 mile of		
all-weather road	3,549,145	60.6
Farms classified by kind of road adjoining farm:		
Hard-surfaced	1,146,986.	18.8
· 1950	594,182	9.4
2 1925	472,961	7.4
Gravel, shell, shale, etc	1,731,477	28.4
3 1930	1.435.644	22.8
* 1925	946,057	14.8
Improved dirt	1,528,597	25.1
1930	1,638,954	26.1
1925	1,998,704	31.4
Unimproved dirt	1,442,678	28.7
1930	2,279,989	86.3
1925	2,747,732	43.1
Kind of road not reported	247,111	4.1
1980	339,879	5.4
5 1925	206,186	3.2

¹ Concrete, brick, asphalt, and macadam. ⁸ Concrete or brick, and macadam. Aspha it was not specified on the schedule. ⁵ Includes sand-clay. Asphalt was included in an "All other" group,

Gravel.

5 Includes asphalt.

FARM FACILITIES, ROADS, AND FARM MACHINERY

and including 0.2 miles were tabulated as a group. In some of the tables, farms reported as "0" miles, 0.1 mile, and 0.2 mile are referred to as "farms within 1/4 mile of an all-weather road" on the assumption that reports of 0.2 represented up to 0.25 of a mile, while those of 0.3 or more miles represented distances in excess of 0.25 miles.

. As there were 292,804 farms for which reports were not secured, the 5,566,365 farms in the United States which were reported as within 1/4 mile of an all-weather road represents a minimum. A relatively high proportion of the nonreports may represent farms on all-weather roads. For other incuiries, if the reply represented a "O" quantity the inquiry was generally left blank. Consequently, there was some tendency to omit "O" distances.

Information on roads in relation to the farms were obtained in the 1940, 1930, and 1925 Censuses but the inouiry referred to the kind of road surface for the road adjoining the farm. The classification on the basis of the kind of road surface varied somewhat for the three censuses, but each provided a measure of highway improvement and the extent to which farms were served by roads which, from the road surface, might be considered as all-weather. At these censuses it was assumed that roads better than "improved dirt" generally represented "allweather" roads.

Because of the difference in wording of the inquiry on roads, a comparison of the figures for 1945 with those for earlier years does not provide a satisfactory measure of improvement. Apparently "all-weather" roads as defined in 1945 included, in all areas, many roads which would have been classed as no better than "improved dirt" in 1940. In some areas, particularly in the South, all-weather roads may have included some roads which would have been classed as "unimproved" in 1940. For example, in Georgia there were 153,969 farms within 1/4 mile of an "allweather" road in 1945, while in 1940 only 116,933 farms were on "improved dirt" in 1945 as 0.1 or 0.2 mile from an all-weather road did not adjoin a road of this type, thus affecting comparability with 1940.

In 1945, approximately two-thirds of the farms in the United States were on all-weather roads. The highest proportions were in the Northeastern and the Pacific Coast States. In these areas more than 4 out of 5 of the farms were on all-weather roads.

The Great Plains and Mountain States, in general, had the smallest proportions of farms on all-weather roads with many States in these areas having less than 2 out of 5 of their farms reported as on an all-weather road, North Dakota and Oklahoma reporting the smallest proportions with 31.6 and 33.1 percent, respectively. These areas also report many farms at a considerable distance from an all-weather road. In Montana, Wyoming, and New Mexico approximately one-fourth or more of the farms were reported as 5 or more miles from an all-weather road. In the South approximately 3 out of 5 farms were reported as on all-weather roads.

Motortrucks, tractors, and automobiles.— Enumerators were instructed, when recording the number of motortrucks and tractors on farms, to include only those used in the operation



of the farm. If used or owned jointly, they were to be reported only on the farm where usually kept. Truck-trailer combinations (road tractor with trailer) were to be reported under motortrucks, counting only number of power units. Trailers of any kind were not to be included. In addition to the numbers of, and counts of the farms reporting, motortrucks and farm tractors, respectively, the tables also include classifications of farms on the basis of the numbers reported. Farms reporting motortrucks were grouped into those reporting 1 and those reporting 2 or more, while farms reporting tractors were grouped into those reporting 1, 2, and 3 or more.

In the inventory for automobiles, all automobiles on the farm were to be recorded, including any owned by hired help living on the farm.

The increased use of mechanized equipment on farms is reflected in the increases in the numbers of farm tractors and motortrucks between 1940 and 1945. The number of farm tractors increased by 54.5 percent with many States having more than twice as many tractors in 1945 than in 1940. Of the 2,002,662 farms in 1945 that reported tractors, 324,293 had 2 or more tractors. Some of the tractors reported were small garden tractors, and a number were "home-made." Many were old tractors in use only because replacements were not available. The separate report presenting data for a sample of the farms enumerated in the 1945 Census will include figures for tractors classified as to garden, crawler, etc., and as to year of model.

Comparisons of the increases in number of tractors and decreases in numbers of horses and mules indicate that the amount of available power on farms had increased. Although the numbers of horses and mules continued to decline, the gain in tractors more than made up for this loss.

FARMS REPORTING AND NUMBER OF TRACTORS AND NUMBER OF WORK STOCK ON FARMS, FOR THE UNITED STATES: 1920 TO 1945







CENSUS OF AGRICULTURE: 1945

The number of motortrucks also increased, with a 42.3 percent greater number on farms in 1945 than in 1940. It is likely that some of this increase is represented by replacement or conversion of automobiles to provide greater utility. The farm motortruck can serve both as a passenger vehicle and for hauling. Of the 1,299,350 farms with motortrucks in 1945, 3 out of 10 had no automobiles. It should be pointed out that the 1,490,300 motortrucks on farms do not represent all the motortrucks used for farm hauling. Much farm hauling is done on a piecework or a contract basis with motortrucks that are not owned by farmers.

The number of automobiles on farms increased very little with only 2.5 percent more farms reporting automobiles in 1945 than in 1940. The proportion of farms having this type of transportation increased from 58.1 percent in 1940 to 62.0 percent in 1945. However, this probably does not represent the entire increase in farms with available automotive transportation. As previously mentioned, it is very likely that some farmers had converted or replaced their automobiles with motortrucks.



Farm implements and machinery. — Farm operators in 1945 were asked to place an over-all value on the farm implements and machinery used in operating the farm. This was to represent the market value of all farm implements and farm machinery (except automobiles), such as tractors, trucks, tools, wagons, harnesses, dairy equipment, threshing machines, combines, etc. Machinery and equipment used primarily for nonfarm purposes were to be excluded. Permanently installed irrigation and drainage eoutpment was to be enumerated under the value of land and buildings. The value of implements and machinery used jointly by two or more farmers was to be enumerated for the farm where the machinery was located.

A group induiry of this type probably does not obtain as high a total as would have been secured if a listing had first been made of the component items and a value had been placed on each item. The reported values represent largely the individual opinions of farm operators, although ouite frequently the value was obviously influenced by the enumerator. Consequently, the totals include some rather erratic reports. Therefore, they need to be used with caution for small areas, such as counties, for which the totals may have been affected to an appreciable extent by a few individual reports or by the work of a particular enumerator. However, in general, the totals represent a composite of many opinions and therefore are reasonably dependable.





PERCENT DISTRIBUTION OF NUMBER OF FARMS BY VALUE OF IMPLEMENTS AND MACHINERY, BY STATES: 1945



FARM FACILITIES, ROADS, AND FARM MACHINERY

Table 3.-VALUE OF FARM IMPLEMENTS AND MACHINERY, 1850 TO 1945; AND MOTORTRUCKS, TRACTORS, AND AUTOMOBILES ON FARMS, 1920 TO 1945; FOR THE UNITED STATES

Eximines for divisions and States in tables 18 to 171

	FARIS REF	ORTING	NUMBI	ER OR MOUNT		
ITEM AND YEAR	Number	Per- cent of all	Total	Increase decrease (-) preceding ce	from	
	-	farms		Number	Per- cent	
value of farm implements and	·		(dollars)	(dollars)	•	
machinery ¹ 1945 1940	4,704,549 5,015,252 5,529,424 (*) (*) (*) (*) (*) (*) (*) (*)	82.3 87.9 (*)™ (*)	5,146,851,100 3,060,187,389 3,361,654,481 2,91,703,629 3,594,772,928 1,265,149,793 749,775,970 494,247,467 406,520,055 2 270,013,678	-241,467,092 609,950,852 -903,069,299	68.2 -7.3 22.7 -25.1 184.1 68.7 51.7 21.6 50.1 10.1	
1860 1850 Farms reporting value of incle- ments and machinery by amount	(*) (*) (*)	(*) (*)	246,118,141 ,151,587,638	04,530,503	62.4	
reported (excluding auto- mobiles), 1945; \$1 to \$99 \$1 to \$49 \$50 to \$99 \$250 to \$499 \$500 to \$749 \$750 to \$999 \$1,000 to \$2,499 \$1,000 to \$1,499 \$2,500 to \$1,499 \$2,500 to \$1,499 \$2,500 to \$3,499 \$2,500 to \$3,999 \$2,500 to \$9,999 \$10,000 and over	604,024 449,6c1 887,968 441,614 383,204 170,384 1,107,580 453,562 654,018 660,214 500,091 129,044 31,079	18.0 10.3 7.7 15.2 7.5 5.6 5 2.9 18.9 7.7 11.2 11.3 8.5 2.2 0.5	(#) (%) (%) (*) (*) (*) (*) (*) (*) (*) (*) (*) (*	(*) (*) (*) (*) (*) (*) (*) (*) (*) (*)	$ \begin{array}{c} (x) \\ (x) $	
Motortrucks on farms1945 1940. 1953. 1950. 1920. 1 motortruck1945. 2 or more motor-	944,184 845,335 131,551 1,105,976	22.2 15.5 13.4 2.0 19.9	1,047,084 900,385 139,169 1,165,976	443,216 146,699 761,216	42.3 16.3 547.0	
trucks	135,374	2.3	324,324	(*)	(1)	
automobiles	851,457 473,848 229,332	6.8 34.2 23.1 13.5 7.4 3.6 28.6 4.6 1.0	(*) 2,421,747 1,567,430 920,021 505,933 246,083 1,678,369 534,300 208,988	(*) 854,317 647,409 414,088 259,950	(*) 54. 70. 81. 105.	
Automobiles on farms1945 1940. 1930. 1930.	3,630,433 3,542,036 3,650,003 1,979,564	62.0 58.1 58.0 30.7	4,148,275 4,144,136 4,134,675 2,146,362	4,139 9,461 1,988,313	0. 0. 92.	

Not available. ¹ Figures for 1945 exclude automobiles; those for 1940 and earlier years include automobiles. ² Value in gold-approximately one-fifth less than reported currency values pub-lished in the 1870 report which shows \$336,878,429 for value of implements and autom

machinery.

A value of implements and machinery was reported for 4,704,549 or 80.3 percent of all farms. With 1,154,620 farms not reporting, it appears that the value of implements and machinery has also been incompletely enumerated through failure to obtain reports for this item. It is true that many farms may have had no implements and machinery or they may have had only a few hand tools of insignificant value. In some instances, the machinery and ecuipment used by tenants and croppers are furnished by the landlord and are kept on land operated by him. In plantation areas, the returns for multiple units ouite frequently show all of the implements and machinery on the "home farm." In highly developed fruit areas, particularly in the citrus areas of Florida, Texas, and California, the various farm operations may be performed for many owners by one manager or by one or more contract operators. In such cases, many of the groves would not show reports of implements and machinery, since the machinery was to be reported for the farm where it was kept.

The value of implements and machinery has been obtained at each census beginning with 1850, with the exception of 1935. The value figures shown for each census presumably represent the market value on the census date, although specific mention of evaluating the property at what it would sell first appeared in the instructions for the 1900 Census. Prior to that time,

the inquiries asked for "cash value" or merely "value" without further qualification.

The kinds of property represented in the value of implements and machinery were essentially the same for each census, with the exception of the exclusion of automobiles in 1945. In the Censuses of 1920 to 1940, the schedule inquiry relating to the value of implements and machinery used in operating the farm specifically mentioned automobiles as one of the items to be included. Since many automobiles on 'farms were used primarily for nonfarm purposes and are often owned by persons other than the farm operator, it was not possible to determine to what extent the value of automobiles was included. Therefore, the incuiry for 1945 for value of implements and machinery specifically excluded the value of automobiles.

Because of a change in price level, a comparison of the value of farm implements and machinery, as reported in 1945, with those for earlier censuses does not provide a satisfactory measure of change in the cuantities of implements and machinery on farms. Between 1940 and 1945, the value of implements and machinery increased by 68.2 percent. During this same period, the value of farm land and buildings increased by 37.9 percent with a part of this increase due to an increase in land in farms. However, the prices received by farmers for farm products doubled. Although a part of the increase in value of implements and machinery was due to more equipment, as indicated by the increases in numbers of tractors and motortrucks, much of the equipment was old and in need of replacement. It is likely that most of the increase in value was due merely to higher prices. That the value of implements and machinery increased to a much greater extent than the value of land and buildings was probably due to the strong demand for machinery to supplant lost manpower and to replace the worn out machinery.

The amounts of implements and machinery on farms vary greatly from one area to another. In the North Central States where farming is highly mechanized, approximately one-half of the farms had at least \$1,000 worth of implements and machinery with approximately 1 in 5 having \$2,500 or more; the proportions being somewhat higher in the West North Central than in the East North Central States. In the South, where greater dependence is placed on hand labor, more than one-half of the farms which reported a value of implements and machinery had less than \$500 worth with a large proportion reporting less than \$100 value.

Table 4 .- NUMBER OF FARMS, CROPLAND HARVESTED, AND HORSES AND MULES ON FARMS, 1920 TO 1945; FARMS CLASSIFIED AS TO DWELLINGS, 1945, AND AS TO RESIDENT OPERATORS, 1945 AND 1940; AND RURAL FARM DWELLINGS, 1940: FOR THE UNITED STATES

[Figures for divisions and States in tables 18 and 19]

ITEM AND YEAR	Number
Farms, total	5,859,165 6,096,795 6,812,350 6,288,644 6,371,640 6,448,343
Cropland harvested (acres)	352,865,76: 321,242,430 295,624,170 359,242,09 344,549,26 348,603,72:
Farms classified as to dwellings, 1945: Dwellings reported Dwellings not reported	5,721,903 137,260
Farms classified as to resident operators: With resident operators	5,459,84
Without resident operator	5,506,32 336,89 313,59
Rural-farm-dwellin; units, ² total	62,43 276,879 7,642,28
Occupied	7,106,555
1940 1935 1935 1930 1925	13,931,53 16,676,01 18,737,52 22,081,52 25,199,55

1 The total acreage of crops for which figures are available (excluding 14,502,932 acres of corn for foreage, as most of this was probably duplicated in the corn harvested for grain). ² As shown in the 1940 Census of Housing reports.