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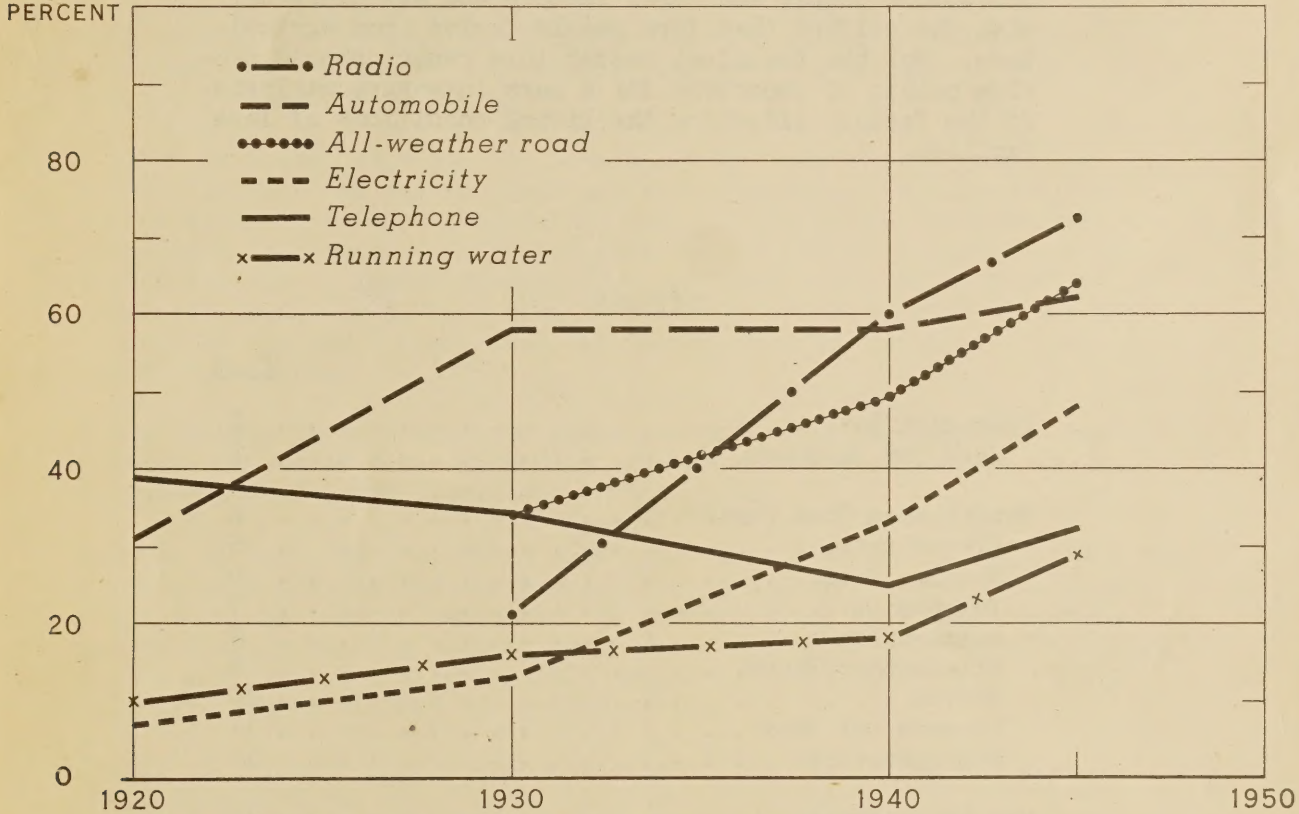
TRENDS IN FARM FAMILY LEVELS AND STANDARDS OF LIVING

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PERCENTAGE OF FARM OPERATORS REPORTING SPECIFIED FAMILY LIVING ITEMS, UNITED STATES, 1920-45



SOURCE: SEE TABLES 13-18 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

NEG. 46461 BUREAU OF AGRICULTURAL ECONOMICS

United States Department of Agriculture  
Bureau of Agricultural Economics  
Washington, D. C.  
August, 1947

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This publication is intended to be useful to all who are actively concerned with the welfare of farm families in America. The trends and present conditions in the levels and standards of living of farm families are presented as completely as available data permit. The materials are of value to extension workers and other adult educators, agency representatives, agricultural economists, rural sociologists, home economists, and those farm people and rural leaders who are concerned with the welfare that farm people derive from agriculture. For the technical reader this report should provide points of departure for a more intensive analysis of the factors affecting the living conditions of farm families.

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## TRENDS IN FARM FAMILY LEVELS AND STANDARDS OF LIVING 1/

Edgar A. Schuler and Rachel Rowe Swiger

## INTRODUCTION

To improve the level of living of farm people is the final objective of official agricultural and rural life agencies. It is certainly the prime objective of farm people themselves. To what extent and in what ways this objective has been, is being, and in the future can be accomplished are questions that cannot be answered until there are ways by which to measure farm levels of living.

A level of living consists of those goods and services which people habitually have and use in their day-by-day living. It includes the entire range of things and services that contribute to the survival, protection, convenience, and enjoyment of individuals either alone, in the family, or in larger groups. But patterns of living differ tremendously from society to society; we are concerned primarily with those of our own society. What, then, is included in the level of living in the United States?

First of all, it includes such items as food, shelter, clothing, and medical care — matters which have genuine survival value, and are the "necessities of life" everywhere in the world.

Second, it includes the use of such conveniences as household furnishings, labor-saving devices and equipment; the services of professional people other than doctors; the agencies of personal care; isolation-reducing agents such as reading matter, the radio, the telephone, the automobile, postal service, good highways, the railroad, the bus, and other types of public transportation and communication.

Third, it includes such facilities as schools, hospitals, churches, recreation centers, which meet the needs of groups larger than the family, and business establishments serving a variety of specialized needs.

Fourth, it includes the amount and distribution of time left for leisure, recreation, and self-improvement activities, after the expenditures of such physical and mental effort as are required to supply the desired goods and services.

Fifth, it comprises the basic values, freedoms, or beliefs by which people live and for which, if need be, they are willing to die. For us, as Americans, these values are spelled out in such historic documents as the Declaration of Independence, and the Constitution of the United States, including the Bill of Rights and later amendments to the Constitution.

Sixth, it includes the degree of assurance that these goods, services, and rights will continue to be enjoyed in spite of illness, adversity, and advancing age.

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1/ Revised by Walter C. McKain, Jr., Bureau of Agricultural Economics, to incorporate information contained in the 1945 Census of Agriculture.

Accordingly this report constitutes what is hoped will be the first in a series of periodic reports that will measure with increasing accuracy and completeness the changing levels and standards of living of farm people in this country.

#### ESTABLISHED TIME SERIES

It is common knowledge that significant technical improvements have been taking place on our farms during the last quarter century. No one will deny that the changes that have taken place in such items as electricity, running water, telephones, automobiles, and radios have greatly affected the welfare of farm people. Much of the drudgery and loneliness of many thousands of farm families have been modified since 1920 through the enjoyment of these widely diffused conveniences.

Changes that have taken place in the proportions of farm families having certain items during the past 25 years are summarized graphically in the figure which appears on the cover. In the charts and tables presenting individual items, regional comparisons have been limited to the three major Census regions -- the North, the South, and the West. 3/

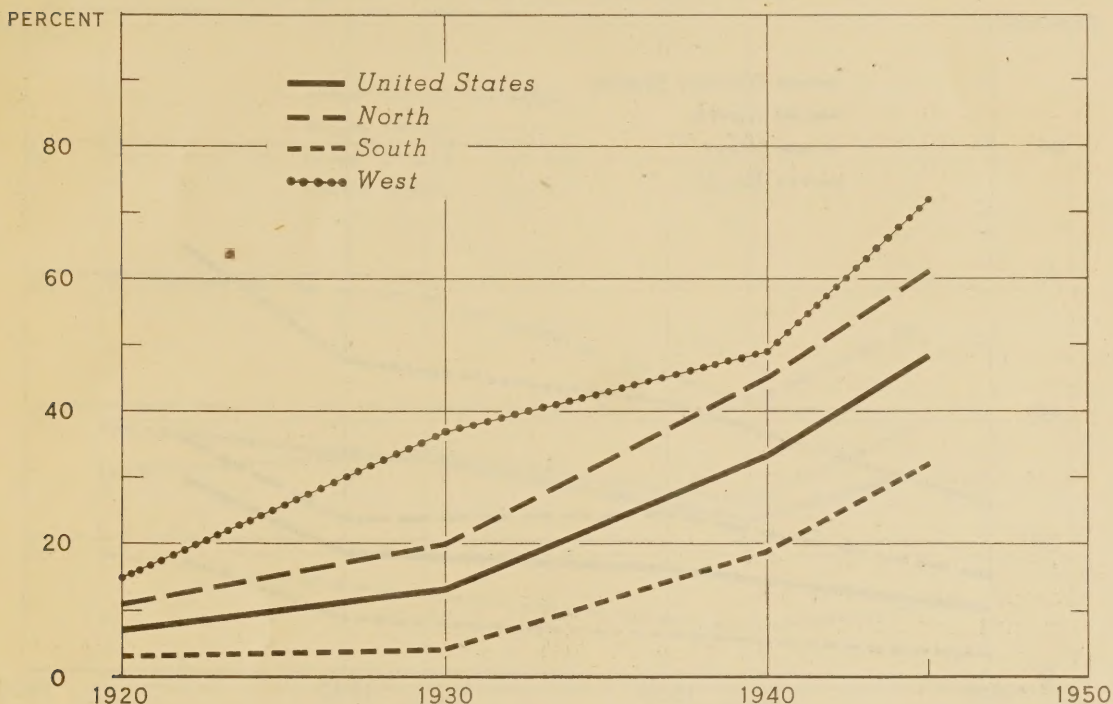
In the regional comparisons the North is generally in the position of having the highest proportion of farm operators with preferred items, although the West leads in several items. The South is lowest in the regional comparisons. When the regions are compared with regards to changes between 1940 and 1945 the West most often shows the fastest rate of increase.

Available information does not permit drawing definite conclusions about the causes of the changes that have occurred regarding specific items. It should be pointed out, as a general caution to the reader, that the data dealt with throughout this report are proportions of farms, farm operators, or their families, rather than absolute numbers. Any selective type of increase or decrease of farms, therefore, may be partly responsible for the observed percentage changes with regard to various items. For example, if the wartime migration of farm families to industrial centers included disproportionately large numbers of families moving from houses designated as poor there would be a percentage increase of good houses even though no new construction had taken place. Recognition of this possibility may help a reader to avoid drawing unwarranted inferences from these data.

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3/ See Figure 15, Appendix, p. 26.

## PERCENTAGE OF FARM OPERATORS REPORTING DWELLING LIGHTED BY ELECTRICITY, UNITED STATES, 1920-45



SOURCE: SEE TABLE 13 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

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Figure 2

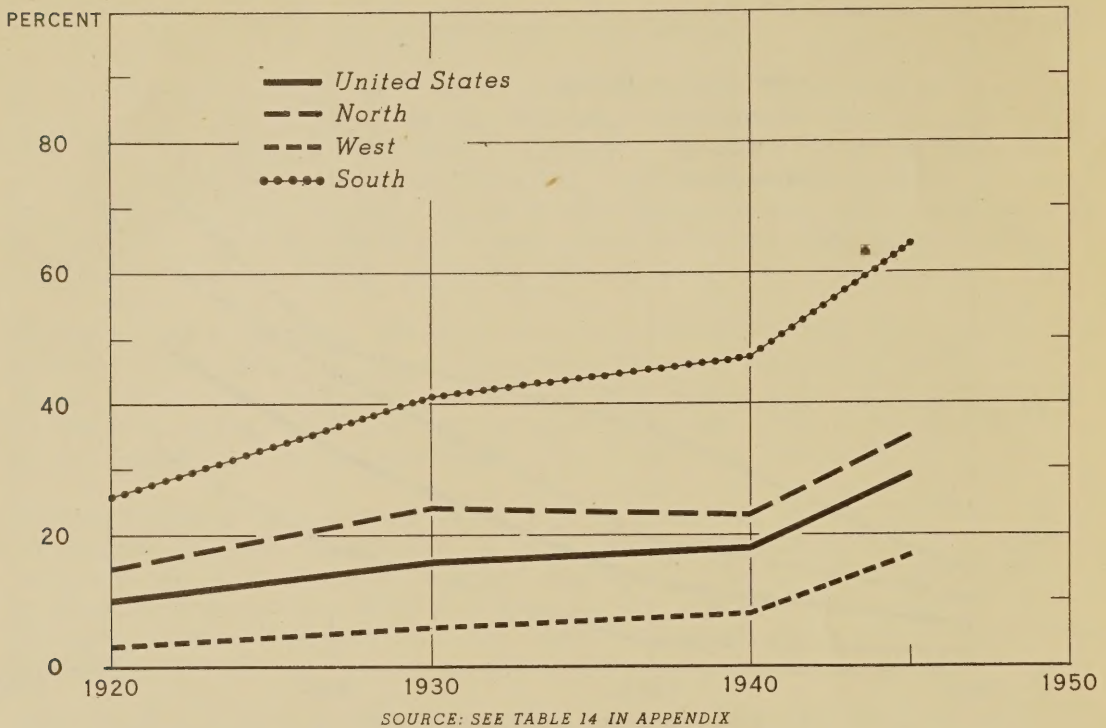
### Electricity

The steeply climbing curve of farm operators' dwellings lighted by electricity shows how valuable this item is to farm people. (Fig. 2) Its importance in their standard of living should not be underestimated. Electricity means more than home lighting. It is a basis for the multitude of appliances that make housework easier and more efficient. Refrigerators, washing machines, self-heating irons, modern radios, and many other items are directly related to the presence of electricity in farm homes.

The proportion of farm homes lighted by electricity has increased in each decade since 1920. There are now nearly 7 times as many farm homes with electricity as there were in 1920. Even under wartime conditions electrification was extended to some farm homes. The need for labor saving machinery to meet the demand for increased production of food and fiber was partly responsible for the gains made in electrification since 1940.

Although there are marked variations in the proportion of farm homes lighted by electricity region by region, every section of the country has made progress in this direction. Nearly a third of the farm homes in the South have electricity today, or 8 times as many as in 1930. In the North 61 percent of the farms report electricity, which is a threefold increase over 1930. The proportion of western farm homes with electricity has doubled since 1930, so that nearly three-fourths of them now have electricity.

## PERCENTAGE OF FARM OPERATORS REPORTING RUNNING WATER IN FARM DWELLING, UNITED STATES, 1920-45



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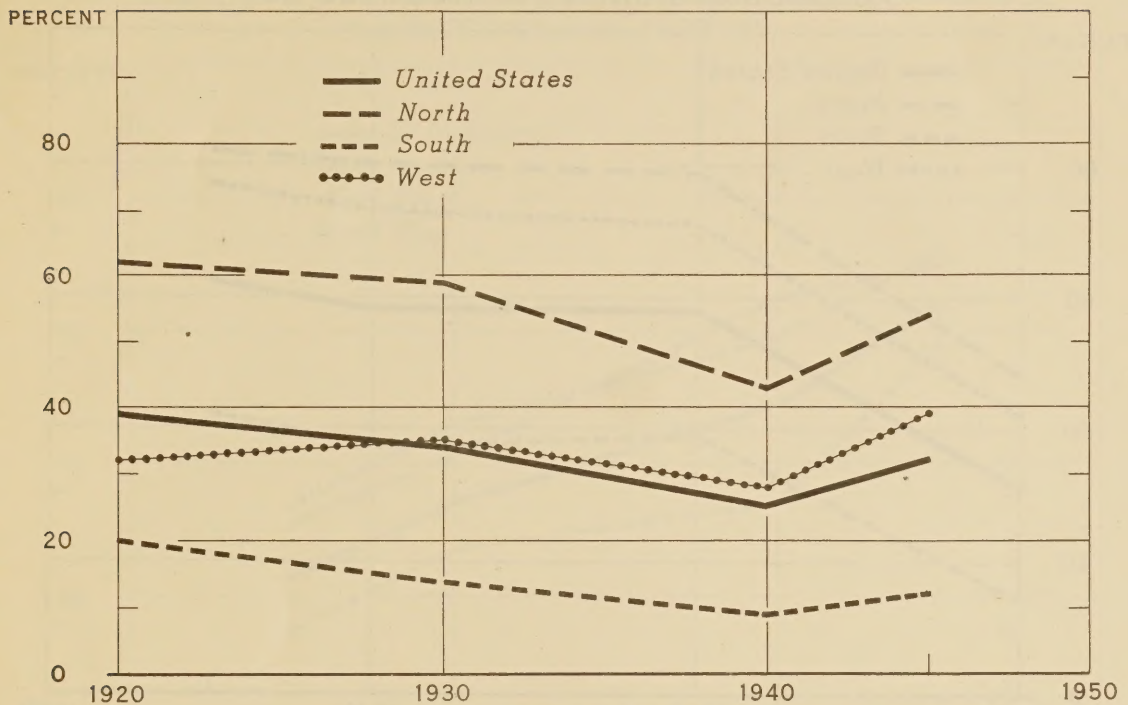
Figure 3

### Running Water

Less than a third of the farm families in the United States have water piped into the house. Unlike electricity, which is usually a community development, running water almost always entails considerable individual expense. Wells must usually be dug and pressure must be established before water can be piped into a farm dwelling. Availability of electricity makes possible the installation of electric pumps, so it is not surprising to find that in 1945 only 6 percent of the farms not reporting electricity had running water. Bath tubs, showers, and flush toilets may add to the convenience and health of the farm families who have water piped into the house.

There was a considerable increase in the possession of dwelling units with running water from 1920 to 1945, and particularly since 1940, in all parts of the country. The rate of increase has not been so marked as in the case of electricity. Nearly two-thirds of the farm homes in the West have running water but less than one dwelling out of five has this convenience in the South. It should be noted that the proportion of farms in the South reporting running water more than doubled between 1940 and 1945.

### PERCENTAGE OF FARM OPERATORS REPORTING TELEPHONES, UNITED STATES, 1920-45



SOURCE: SEE TABLE 15 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

NEG. 46486

BUREAU OF AGRICULTURAL ECONOMICS

Figure 4

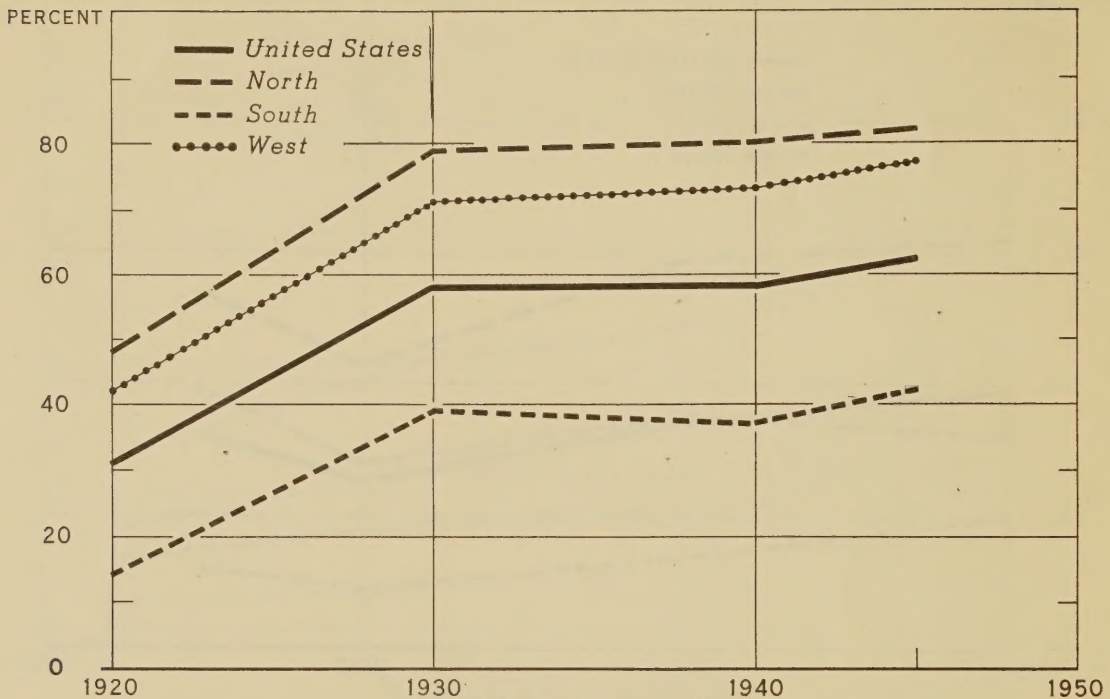
#### Telephones

About a third of the farms in the United States reported a telephone in 1945. For many farm families, the possession of a telephone is considered a luxury. Families who can afford a telephone are usually able to have many other conveniences. Density of population is related to telephone service as many farm families living in sparsely settled areas are unlikely to have telephones.

Actually a larger proportion of farms reported telephones in 1920 than in 1945. A substantial decline in rural-telephone subscribers is found between 1920 and 1930 and a gain between 1930 and 1940. No other item in the level of living analyzed in this report shows a trend like this. Depressed agricultural incomes during the period may have forced farm families to curtail expenses. An upward movement in the curve took place between 1940 and 1945 but the gain was lower than the gain for electricity, running water, and other items.

More than half the farms in the North reported telephones in 1945. Only an eighth of the farms in the South had telephones that year. About 4 out of every 10 farms in the West reported telephones.

### PERCENTAGE OF FARM OPERATORS REPORTING AUTOMOBILES, UNITED STATES, 1920-45



SOURCE: SEE TABLE 16 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

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BUREAU OF AGRICULTURAL ECONOMICS

Figure 5

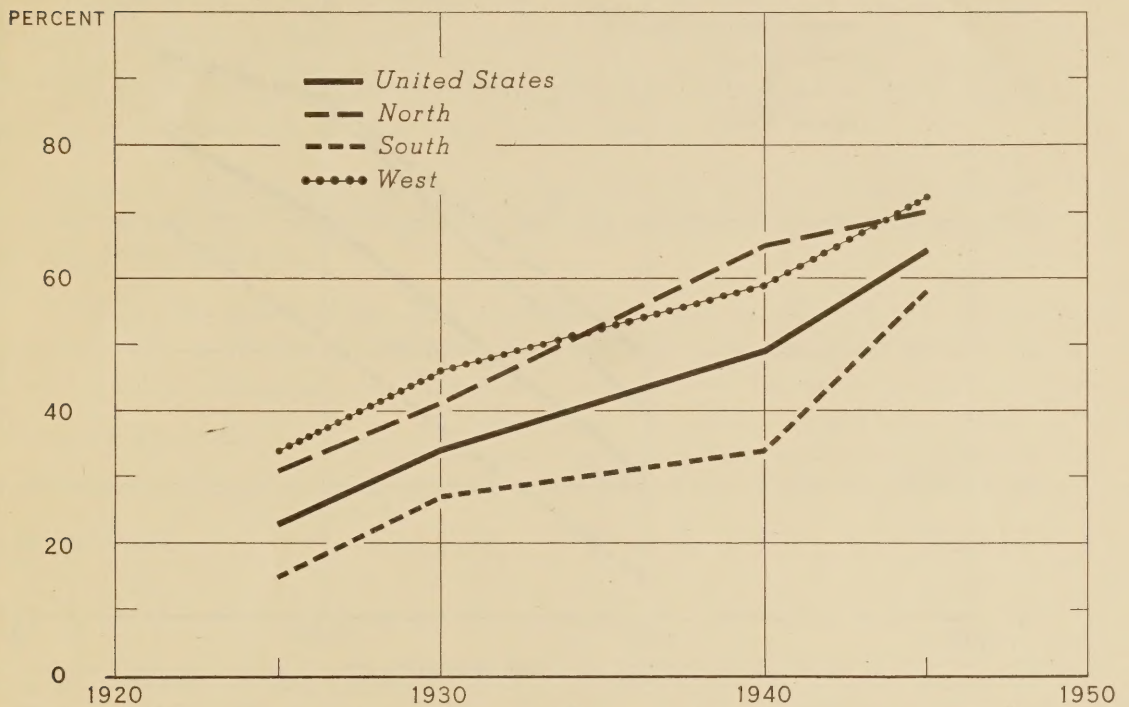
#### Automobiles

The convenience and the economic advantages of an automobile are appreciated by all of our farmers and their families. In 1945 nearly 2 out of every 3 farms reported the possession of a car. Distance between farm and city has been virtually reduced as more farm families acquire automobiles and as more good roads are built.

The proportion of farmers with automobiles increased between 1940 and 1945. Despite a nation wide shortage of cars and gasoline and parts during the war farmers generally were able to keep their cars in operation or replace them. In some instances members of the families who were working in defense plants needed transportation. The largest increase in automobiles in rural areas occurred between 1920 and 1930. During the thirties no gain was recorded in the proportion of farmers who had them.

In the North and the West about 4 out of every 5 farmers had an automobile in 1945. In the South only half as many farms reported a car, but between 1920 and 1945 the proportion of Southern farms with automobiles had increased threefold. During the same period the proportion of farms with automobiles in the North and West did not quite double.

### PERCENTAGE OF FARMS LOCATED ON ALL-WEATHER ROADS, UNITED STATES, 1925-45



SOURCE: SEE TABLE 17 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

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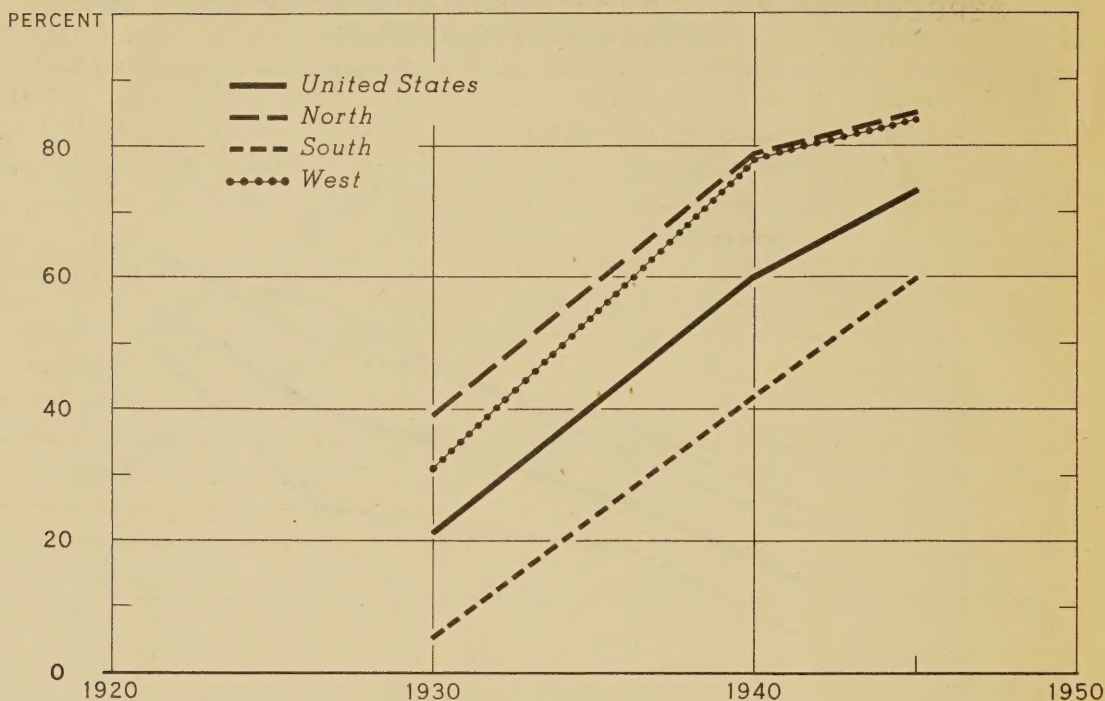
Figure 6

#### Farms Located on All-Weather Roads

Nearly two-thirds of the farms were located on hard-surfaced roads by 1945. The increase in the use of cars, motor trucks, school buses and other automotive vehicles has made improved roads a necessity. Thus between 1925 and 1940 the proportion of farms on all-weather roads doubled. Added to that, a 30-percent increase was recorded for the period 1940-45.

Slight variations are found between regions relative to this item. About two-thirds of farms in the North and West were on hard-surfaced roads in 1945 while less than two-thirds of the farms in the South were located on all-weather roads, but between 1940 and 1945 the proportion of farms in the South that were on hard-surfaced roads had increased 70 percent.

## PERCENTAGE OF FARM OPERATORS REPORTING RADIOS, UNITED STATES, 1930-45



SOURCE: SEE TABLE 18 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

NEG. 46468

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Figure 7

### Radios

Roughly 3 farm families out of every 4 have a radio in their homes. Ownership of radios practically tripled between 1930 and 1940 and increased another 21 percent between 1940 and 1945. This unparalleled spread of a new device indicates the great importance attached to radios by farm families. A radio is relatively inexpensive, and battery sets are available for homes that do not have electricity.

Possession of a radio does not give any indication of the extent of its use, of course. In the Quarterly Survey of Agriculture, April 1945, it was said that one-sixth of the farm homes reporting a radio had a set that was not in working order. Shortage of batteries, tubes, and other parts made it difficult for rural people to keep their sets in repair during the war.

Only 6 farms out of 10 in the South had a radio and more than a third of the sets were not in working order. In the West 84 percent of the farm homes had a radio and the proportion of farms in the North with a set was even higher.

Persons per Room

The proportion of farm families living under crowded conditions declined sharply between 1940 and 1945. (table 2). In 75 percent of the farm dwellings in 1945 there was at least one room for every person; in 1940 only 70 percent of the farm families were as well situated. There were two principal causes for this gain in living conditions. The departure of family members to the armed forces or to war-industry centers reduced the number of farm people living at home and there was a net reduction in the number of farm dwellings by nearly 800,000 units. Most of this reduction occurred in 1-, 2-, and 3-room houses.

The degree of crowding is related to the incomes of farm people but it is also affected by rural customs, date of settlement, and the average size of farm families.

Table 2.- Percentage distribution of rural farm occupied dwelling units by persons per room. United States 1940 and 1945.

Persons per room	: Proportion of occupied dwelling units	
	: 1940	: 1945
0.50 or less	30	35
0.51 to 1.00	40	40
1.01 to 1.50	14	14
1.51 or more	16	11

Source: Bureau of the Census. Census of Housing: 1940, Vol. II, Part 1. pp. 38-39. Bureau of the Census. Characteristics of occupied Dwelling Units for the United States Housing Special Reports Series H-46; No. 1, May 16, 1946. p. 12.

Refrigerators

The proportion of farm families reporting ownership of mechanical refrigerators more than doubled between 1940 and 1945 and the proportion of families with ice boxes increased. Increases during this period may have been influenced by larger incomes, wider availability of electricity, and the wartime need for a more careful conservation of food.

Table 3.- Percentage distribution of farm dwellings with mechanical and ice refrigerators. United States 1940 and 1945

Type of Refrigeration	: Proportion of farm dwellings	
	: 1940	: 1945
Mechanical	15	30
Ice	18	28

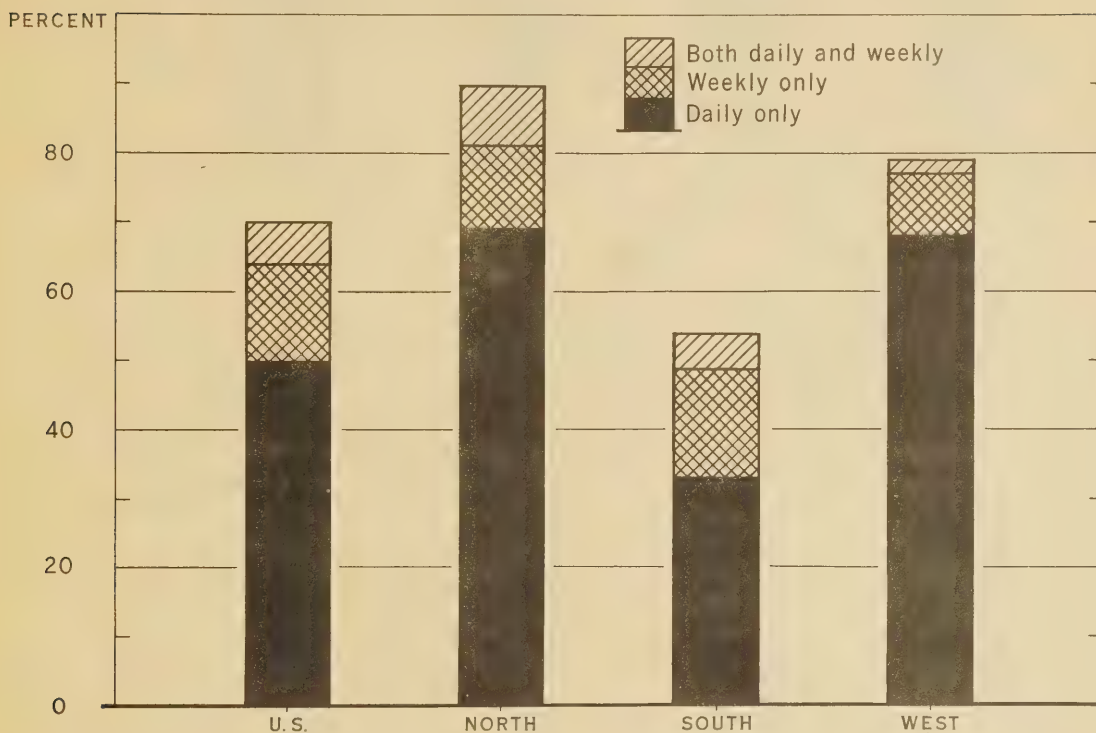
Source: Census of Housing, 1940 Vol. II, Part 1. p. 36-37, all occupied rural farm dwelling units, both operators and nonoperators, reporting refrigeration equipment. Characteristics of occupied Dwelling Units for the United States, Housing-Special Reports, Series H-45, No. 2, July 21, 1945.

In the South where refrigeration would appear to be most needed the lowest proportion of farm operators reported an ice box or a mechanical refrigerator.

#### NEW BENCH MARKS

Some information not currently available from Census sources was obtained through the 1945 Survey of Agriculture in April and October of that year. The data for these items are available for only one point in time, so it is not possible to present them in conventional time-series form. Later periodic enumeration of these items by the Census, Quarterly Survey of Agriculture, or some other adequate national sampling mechanism is highly desirable as it would permit a determination of current levels and trends or changes for these items. A gradual expansion of the scope of data obtained periodically will make possible an increasingly comprehensive time series on the levels and standards of living for farm families in the United States.

### PERCENTAGE OF FARM OPERATORS REPORTING DAILY OR WEEKLY NEWSPAPER, UNITED STATES, 1945



U. S. DEPARTMENT OF AGRICULTURE

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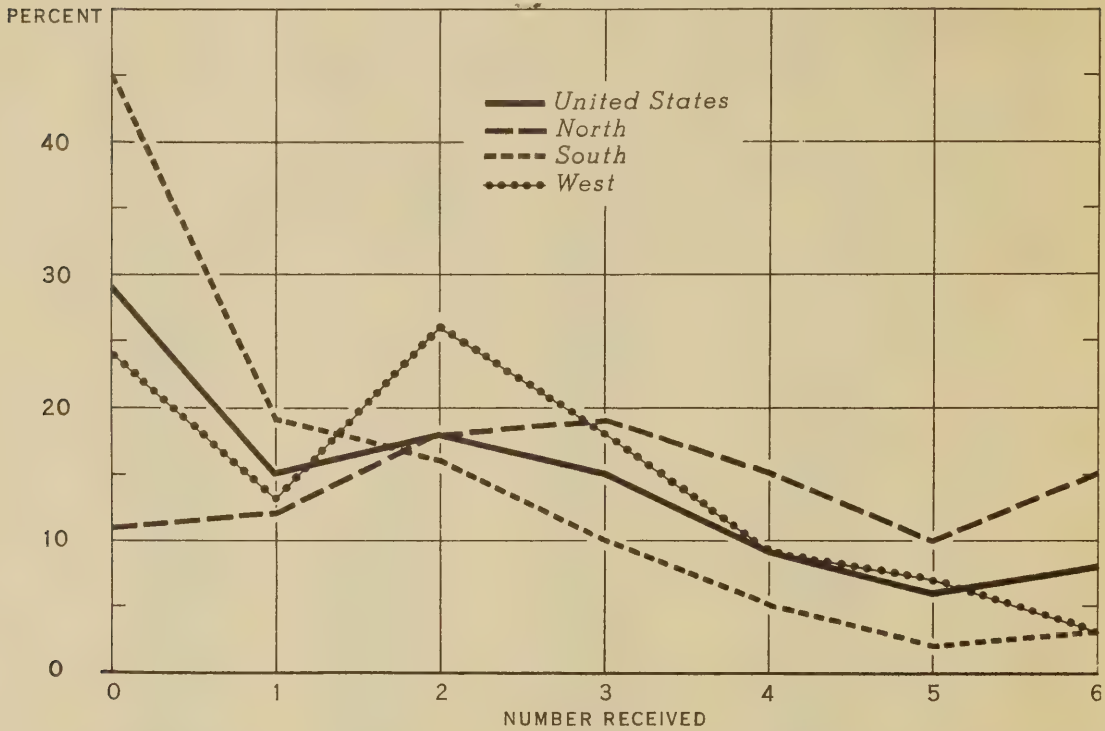
Figure 8

#### Newspapers

Either a daily or weekly newspaper goes into 7 out of every 10 farm family homes. It is significant that only 2 out of every 10 operators had weekly papers while nearly 6 out of every 10 reported taking a daily newspaper. This is an indication of the extent and frequency with which urban influences are now reaching farm homes.

There are some regional variations in the proportions of farm families who subscribe to newspapers. Slightly more than one-half of the farms in the South report a newspaper while 90 and 79 percent of the farms in the North and West receive paper.

### PERCENTAGE OF FARM OPERATORS REPORTING RECEIPT OF MAGAZINES BY NUMBER RECEIVED, UNITED STATES, 1945



U. S. DEPARTMENT OF AGRICULTURE

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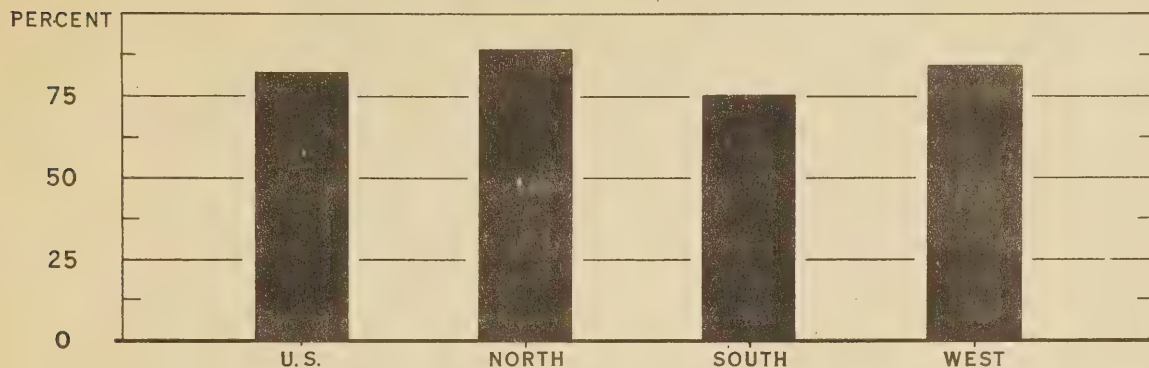
Figure 9

#### Magazines

Nearly three-fourths of the farm families receive one or more magazines. A fourth regularly take four or more magazines. Information is not available concerning the various types of periodicals received by farm operators or the number of magazines actually read.

There is a wide variation between regions. A higher proportion of farmers in the North than in the South or West receive magazines. Nearly half the Southern operators reported no magazines; a fourth of the western farmers and only a tenth of the farmers in the North received no periodicals.

PERCENTAGE OF FARM OPERATORS REPORTING SEWING MACHINE  
IN THE FARM HOME, UNITED STATES, 1945

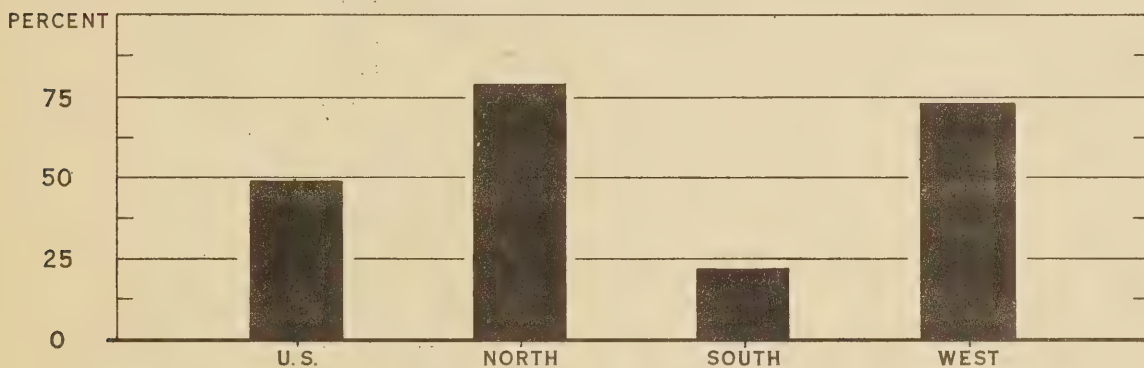


SOURCE: SEE TABLE 21 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

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PERCENTAGE OF FARM OPERATORS REPORTING POWER-DRIVEN  
WASHING MACHINE IN THE FARM HOME, UNITED STATES, 1945

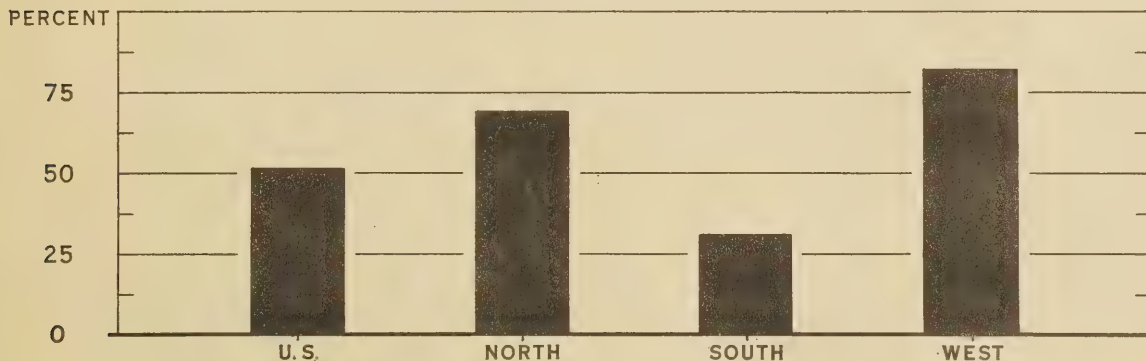


SOURCE: SEE TABLE 21 IN APPENDIX

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PERCENTAGE OF FARM OPERATORS REPORTING SELF-HEATING IRON  
IN THE FARM HOME, UNITED STATES, 1945



SOURCE: SEE TABLE 21 IN APPENDIX

U. S. DEPARTMENT OF AGRICULTURE

FIGURE 10

NEG. 46473

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Sewing Machines, Washing Machines, Self-Heating Irons

About 4 out of 5 farm operators' homes have sewing machines. Regional variations are small. Of the several items considered in this report the sewing machine evidently comes closest to being considered a necessity by farm families. Sewing machines are available in foot-treadle models not requiring electric power and some of these, when bought in a used condition, have ranged downward in price to very modest amounts. The necessary minimum of clothing can be most cheaply provided for the farm family by using a sewing machine to make new garments or to removate old clothing.

Approximately one-half of the farm operators in the United States reported a power-driven washing machine in 1945. In the West and the North 4 out of every 5 farm families had a washing machine while in the South less than a fourth of farm homes were so equipped. Southern farmers, at least in the past, have used domestic labor to ease the burden of family laundering.

Slightly more than half of the farm homes had self-heating irons in 1945. As in the case of washing machines, the meaningfulness of this nation-wide figure is limited by pronounced regional variations. In the West more than four-fifths of the operators reported an iron compared with more than two-thirds in the North, and less than one-third in the South. The extension of electricity to more farm homes is expected to increase the possession of self-heating irons among farm families.

Medical Care

The health of farm people is one of the most important items in their level of living. The October 1945 Quarterly Survey of Agriculture included a series of questions on the kind of medical care received by the members of farm families during the last 3 years. The information obtained was directed toward the type of health care received rather than the frequency of the occasions requiring medical attention.

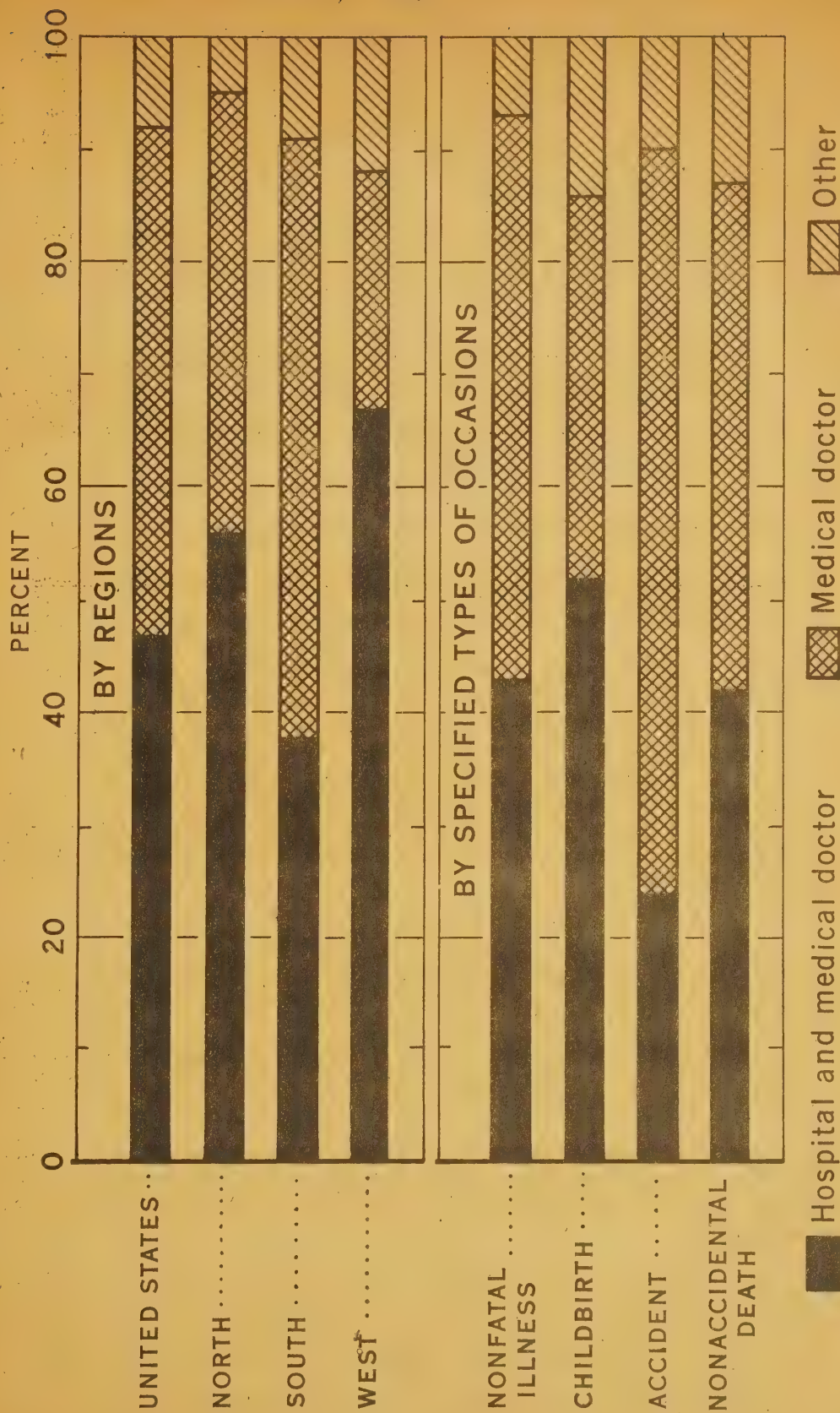
In the sample one out of every 4 farm families had at least one occasion calling for health care during the 12 months immediately preceding October 1945. (Table 4.) The proportion is slightly higher in the North and

Table 4.- Distribution of farm operator families by those reporting one or more occasions requiring health care during preceding 12 months, October, 1945, United States, by region.

Needs for Health Care Reported	:United States:		: North :		: South :		: West :	
	: No. :	: % :	:No. :	: % :	:No. :	: % :	:No. :	: % :
Total	2,530	100	1,028	100	1,312	100	190	100
One or more occasions requiring health care reported <u>1/</u>	627	25	286	28	310	24	33	17
No occasion requiring health care reported	1,890	75	740	72	992	75	157	83
Not ascertained	13	—	2	—	10	1	0	—

1/ Occasions requiring health care: Serious illness that kept the person from his regular work for a week or more, childbirth, non-accidental death, serious accidental injury, ("serious" or defined by respondent). Only last occasion reported.  
Source: Quarterly Survey of Agriculture, October 1945.

PERCENTAGE OF FARM OPERATORS REPORTING TYPE OF MEDICAL CARE RECEIVED DURING PREVIOUS 12 MONTHS BY SPECIFIED TYPE OF OCCASION REQUIRING MEDICAL CARE, UNITED STATES, 1945



SOURCE: SEE TABLES 22-23 IN APPENDIX

lower in the West. It must be understood that these figures represent the judgment of respondents who may have reported only those illnesses and accidents in which medical care was used. Accordingly, the figures probably are conservative statements of need. Most of the farm families who had an occasion requiring health care reported a serious illness (16 percent). Childbirths and accidents and non-accidental deaths accounted for the remainder (table 5).

Table 5.- Distribution of farm-operator families reporting specified types of occasions requiring health care during preceding 12 months. United States, October, 1945.

Occasion requiring health care <u>1/</u>	:Operators reporting :specified occasion	
	: Number :	: Percent
Serious illness	402	16
Childbirth	157	6
Serious accidental injury	121	5
Non-accidental death	38	2

1/ Only last occasion reported.

Source: Quarterly Survey of Agriculture, October 1945.

The kind of care actually received by families reporting one or more occasions demanding health care is shown in figure 13. In 9 cases out of 10 a doctor of medicine was used. There was little regional variation. In nearly half of the cases both a doctor and hospitalization were necessary. Other kinds of practitioners and home care accounted for the remainder. The occasion receiving the highest proportion of hospitalization (slightly more than 50 percent) is childbirth, which was also the occasion with the highest proportion of cases receiving care from a practitioner other than a medical doctor.

#### Accidents

Farm operators were asked to furnish details concerning the last serious accident or injury to himself or to a member of his family during the preceding 3 years. Nearly 5 percent of them reported an accident. More than a third of these came as the result of a fall, more than a fifth involved a vehicle, and almost an eighth occurred while handling livestock (table 6).

Fractures were the injuries most frequently reported, followed by dislocations and cuts or lacerations (table 7). A larger proportion of the injuries involved the leg, foot, or toes than any other part of the body (table 8).

When planning prevention programs it is important to know where accidents to farm people take place. According to results obtained in the Quarterly Survey of Agriculture age is closely related to the place where accidents occur. The proportion of accidents on the farm almost doubles with the increasing age of the injured person (table 9). Persons between 20 and 49 have a higher proportion of accidents occurring on roads and lower proportion of home accidents than any other age grouping. Many persons

Table 6.- Distribution of farm-operator families reporting a serious accident or injury <sup>1/</sup> occurring to resident family member during preceding 3 years, by specified circumstances of accident. United States, October 1945.

Circumstances of accident or means of injury	Operators reporting accident	
	Number	Percent
Total	229	100
Falls, etc.	81	35
Vehicles	52	23
Livestock	27	12
Heavy machinery	16	7
Hand tools	9	4
Light machinery	7	3
Weather	3	1
Miscellaneous	34	15

<sup>1/</sup> Only last accident reported

Source: Quarterly Survey of Agriculture, October 1945.

Table 7.- Distribution of farm-operator families reporting a serious accident or injury <sup>1/</sup> occurring to resident family member during preceding 3 years, October 1945 by specified type of injury. United States, October, 1945.

Kind of Injury	Operators reporting accident	
	Number	Percent
Total	229	100
Fracture	89	38
Dislocation	50	22
Cuts, lacerations, punctures	43	19
Contusion, abrasion	19	8
Burns and other epidermal injuries	9	4
Amputation	7	3
Internal	6	3
Foreign bodies	6	3

<sup>1/</sup> Only last accident reported.

Source: Quarterly Survey of Agriculture, October 1945.

Table 8.- Distribution of farm-operator families reporting a serious accident or injury <sup>1/</sup> occurring to resident family member during preceding 3 years by part of body affected. United States, October 1945.

Part of body affected	Operators reporting accident	
	Number	Percent
Total	229	100
Leg, foot, toe	73	32
Arm	34	15
Trunk (including shoulder)	30	13
Hand or fingers, wrist, thumbs	22	9
Head, neck, face (except eye)	15	7
Skull and spine	8	3
Eye	5	2
Multiple or general	15	7
Not ascertained	27	12

<sup>1/</sup> Only last accident reported.

Source: Quarterly Survey of Agriculture, October 1945.

Table 9.- Percentage distribution of accidents <sup>1/</sup> occurring to family member during preceding 3 years reported by farm operator families by place of occurrence and age of injured person. United States, October 1945.

Place Where Accident Occurred:	Age Group in Years		
	50 and over	20-49	Under 20
Total	100	100	100
On the farm	64	49	37
On a road	15	23	16
In the home	9	1	17
Other places	9	16	29
Not ascertained	3	11	1

<sup>1/</sup> Only last accident reported.

Source: Quarterly Survey of Agriculture, October 1945.

in this middle age group were absent from the farms during the survey. It is possible that under peace time conditions, after young people have returned to the farms and some older people have retired from farming, the pattern of accidents would be quite different.

Most of the serious accidents or injuries resulted in an appreciable loss of time (table 10). Only 4 percent of the injured persons were able to return to work in less than a week after the accident.

Table 10.- Percentage distribution of accidents 1/ during preceding 3 years reported by farm-operator families by specified number of weeks lost from regular work by injured family member. United States, October 1945.

Number of weeks unable to do regular work	: Operators reporting accident	
	: Number	: Percent
Total	229	100
Under 1 (0-6 days)	9	4
1-2 (7-13 days)	23	10
2-3 (14-20 days)	24	11
3-4 (21-27 days)	26	11
4-8 (28-55 days)	43	18
8-12 (56-83 days)	32	14
12 or more (84 days or more)	35	15
Death	13	6
Not ascertained	24	11

1/ Only last accident reported

Source: Quarterly Survey of Agriculture, October 1945.

#### Organization Attendance

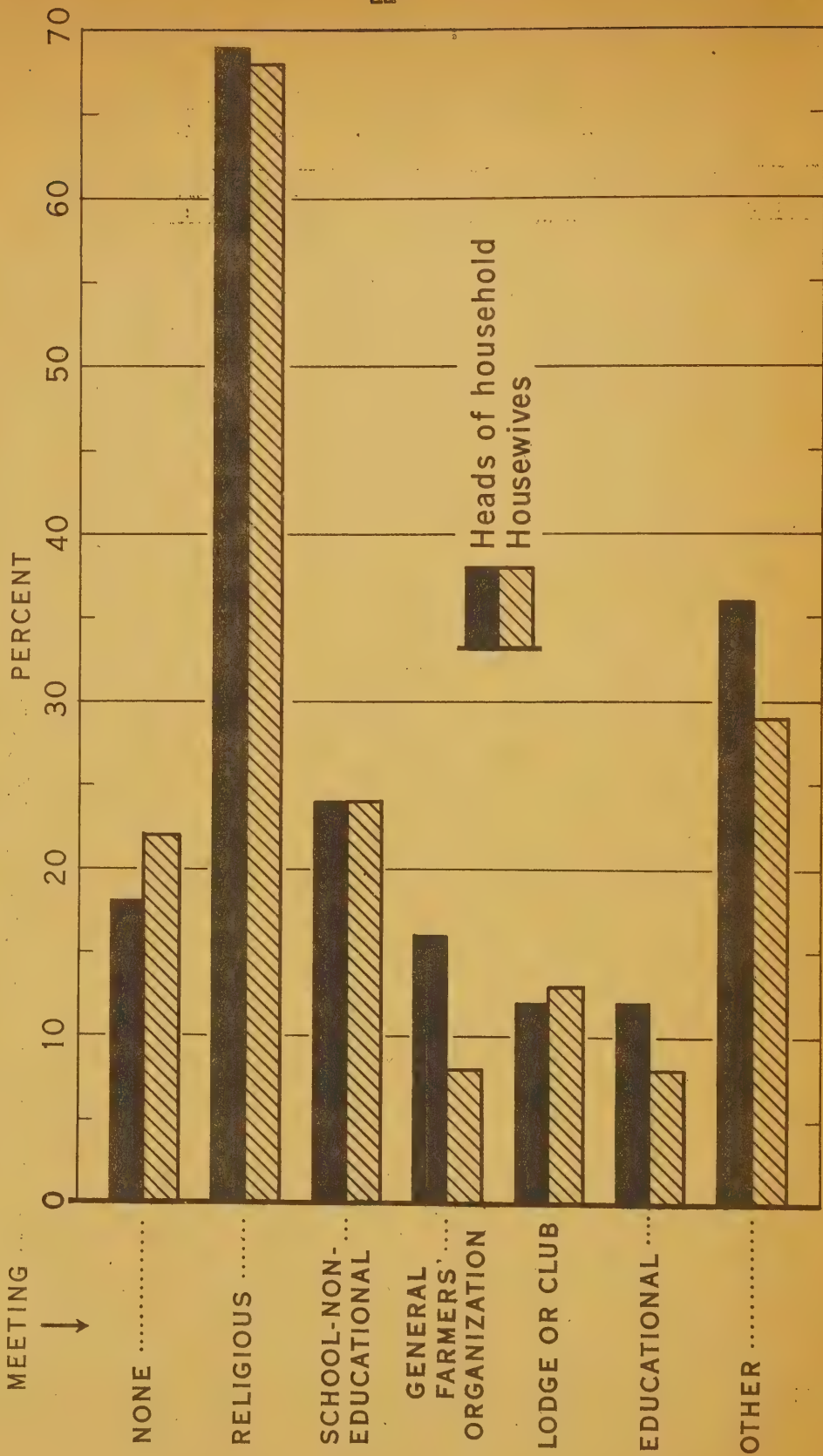
The participation of heads of farm-operator households and housewives in organized local community activities is one phase of their level of living. Approximately a fifth of the heads of households and the housewives reported no participation in local organizations during the 12 months preceding October 1945 (fig. 14). It must be recognized that opportunities for such participation vary from region to region and community to community, but rare is the community that provides no opportunities whatever throughout an entire year. On the basis of this figure it appears that a significant number of our farm people are living a seriously restricted life so far as taking part in community organizations is concerned.

Far most frequent for both heads of households and housewives is participation in religious activities. This emphasizes the importance of the churches to farm people. The next most frequently reported type of activity participated in includes school functions such as athletic events, plays, and programs.

For the country as a whole almost a fourth of the heads of households and housewives reported attendance at some kind of organized local activity on the average of once a week or oftener (table 11). The frequency of participation was highest in the North and lowest in the West. It should be remembered that frequency of attendance is only one measure of the intensity of participation.

Most of the heads of households and housewives attended only one kind of organization and usually that was a religious group (table 12). This was particularly true in the South. However, nearly an eighth of the heads of households and a twelfth of the housewives attended four or more different kinds of organizations during the year.

PERCENTAGE OF HOUSEWIVES AND HEADS OF FARM OPERATOR HOUSEHOLDS REPORTING ATTENDANCE AT ONE OR MORE MEETINGS OF SPECIFIED ORGANIZATIONS DURING PRECEDING YEAR, UNITED STATES, APRIL 1945



SOURCE: SEE TABLES 11 AND 24 IN APPENDIX

Table 11-a.- Percentage distribution of heads in 2,530 farm operators' households reporting specified frequencies of participation during preceding year in all types of organized local community activities, by region, United States, October 1945.

Frequency of total attendance reported for preceding year in weeks	Heads of households			
	United States			
	North	South	West	Geographic region
Total	100	100	100	100
1-11	18	19	17	24
12-23	14	12	16	14
24-51	25	21	29	15
52 or more	22	27	19	15
Not ascertained	3	4	2	7
None	18	17	17	25

Source: Quarterly Survey of Agriculture, October 1945.

Table 11-b.- Percentage distribution of housewives in 2,530 farm operators' households reporting specified frequencies of participation during preceding year in all types of organized local community activities, by region, United States, October 1945.

Frequency of total attendance reported for preceding year in weeks	Housewives			
	United States			
	North	South	West	Geographic Region
Total	100	100	100	100
1-11	14	14	13	18
12-23	14	12	15	14
24-51	25	23	28	16
52 or more	22	27	19	18
Not ascertained	3	4	2	7
None	22	20	23	27

Source: Quarterly Survey of Agriculture, October 1945.

Table 12-a.- Percentage distribution of heads of 2,530 farm operators' families reporting participation during preceding 12 months in specified numbers and types of organized local community activities, United States, by region, October 1945.

Number of types of activities-- religious and other	: Heads of households			
	:United : Region			
	:States	: North	: South	: West
Total	100	100	100	100
One: Religious	29	20	39	12
One: Any other type	5	7	3	12
Two: Religious and any other type	17	19	16	10
Two: Any other types	3	5	2	6
Three: Religious and any other types	12	12	13	7
Three: Any other types	1	1	-	7
Four-eight: including religious <u>1/</u>	12	16	8	12
Four-eight: not including religious <u>1/</u>	1	-	-	5
None	18	18	17	25
Not ascertained	2	2	2	4

1/ If all eight types of activities were participated in, religious activities would necessarily be included.

Source: Quarterly Survey of Agriculture, October 1945.

Table 12-b.- Percentage distribution of housewives of 2,530 operators' families reporting participation during preceding 12 months in specified numbers and types of organized local community activities, United States, by region, October 1945.

Number of types of activities-- religious and other	: Housewives			
	:United : Region			
	:States	: North	: South	: West
Total	100	100	100	100
One: Religious	30	23	38	12
One: Any other type	4	6	2	7
Two: Religious and any other type	19	20	18	12
Two: Any other types	2	3	1	3
Three: Religious and any other types	12	12	11	11
Three: Any other types	1	1	-	4
Four-eight: including religious <u>1/</u>	8	12	5	12
Four-eight: not including religious <u>1/</u>	-	-	-	6
None	22	20	23	27
Not ascertained	2	3	2	6

1/ If all eight types of activities were participated in, religious activities would necessarily be included.

Source: Quarterly Survey of Agriculture, October 1945.

## THE GAPS THAT NEED TO BE FILLED

There are many things that we still need to know in order to have a total or well-rounded picture of the level and standard of living of rural families in our country. Certainly it will be necessary to include some periodic sample measures of such necessities as food and clothing. Likewise the need for more accurate data on health conditions makes it desirable to explore the current status of the farm population with regard to various physical impairments, chronic ill health, amount of need for medical care and the degree to which it is being received. Closely related to this kind of inquiry would be a periodic enumeration of farm accidents and injuries, together with data on their causes.

Certain kinds of housing information are needed to supplement what is currently available — for example, on sanitary facilities, state of house repair, storage facilities, kind and adequacy of household furnishings, heating equipment, and on fire hazards and fire-fighting equipment. In the field of education further information is needed not only on the formal schooling of all family members, but on informal educational (1) facilities, such as kinds of periodicals received, public and private library resources, and (2) opportunities, such as taking part in organized study groups, and access to informational radio programs. Measures are needed of the time family members have for recreational activities, and of the availability of recreational opportunities. Finally, it would be desirable to examine into the degree of security with which families can look forward to maintenance of their existing levels of living, together with their opportunities for advancement.

This report, which marks the beginning of a Time Series, shows how few are the level-of-living items on which continuous periodic data are now available. To be able to tell, with any degree of completeness, whether the levels and standards of living of rural families are improving or deteriorating it will be necessary to obtain continuing periodic data on the whole range of these items so that trends can be learned and charted.



APPENDIX

The Sample in the Quarterly Survey 1/

The sample upon which the results in the Quarterly Survey of Agriculture, presented in this report, are based is comprised of 2,504 schedules from resident farm operators taken in 101 counties selected to represent all farms in the United States. (See fig. 1) As a detailed statement on how the counties were selected can be obtained upon request, only an outline description of the sample is given here.

One county was selected at random from each of 101 strata. These strata were set up by dividing all counties first into eight type-of-farming areas and then dividing the counties in each of these areas into strata using component indexes 2/ constructed from 12 agricultural and population characteristics.

Area sampling was used within the selected counties, the areas used being a subsample of the areas (or segments) in the Master Sample. 3/ There were almost 600 segments in the whole sample or about 6 segments per county. This means an average of nearly 5 farms per segment.

It is possible to give an approximation to the magnitude of the sampling errors. It should be recognized that there is considerable variation in the sampling error from item to item and that the estimates of error quoted below do not include contributions from sources other than random fluctuations.

At the national level, using all 2,504 farms, the odds are about 95 out of 100 that a sample percentage is within 5 percentage points on either side of what would have been obtained if interviews had been held with all farmers in the United States under the same conditions. The odds would be about 67 out of 100 of being within 2.5 percentage points. (Note that "sampling error" as used here is in terms of absolute percentage points, not coefficients of variation.) The above statements apply to percentages ranging from about 20 to 80. If the percentage is lower than 20 or higher than 80, the sampling errors are lower than the amounts given above.

There are 10 sample counties in the West, 45 in the North (including Northeast), and 46 in the South. Results given here are subject to the largest errors for the West where the odds are about 67 out of 100 of being within 8 percentage points, whereas for the South and North the odds are roughly 67 out of 100 of being within 4 percentage points. Or, putting the odds at about 95 out of 100, we have for the West 16 percentage points and for the South and North 8 percentage points.

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1/ This statement was prepared by Earl E. Houseman, Bur. of Agr. Economics.

2/ Hagood, M. J. and Bernert, E. H., "Component Indexes as a Basis for Stratification in Sampling." Journal American Statistical Association, September 1945.

3/ King, A. S. and Jessen, R. J., "The Master Sample of Agriculture: I. Development and Uses. II. Design." Journal American Statistical Association, March 1945.

## Tables

Table 13.- Percentage of farm operators reporting dwelling lighted by electricity. United States, and regions 1920-45.

Year	: : United States	: : North	: : South	: : West
1920	7	11	3	15
1930	13	20	4	37
1940	33	45	19	59
1945	48	61	32	72

Source: Census of Agriculture: 1920, Vol. VI, p. 88. Figures include gas or electric lights. Census of Agriculture: 1930, Vol. II, p. 56. Census of Agriculture: 1940, Vol. III, p. 541. Census of Agriculture: 1945, Vol. I.

Table 14.- Percentage of farm operators reporting running water in dwelling unit. United States, by regions. 1920-45.

Year	: : United States	: : North	: : South	: : West
1920	10	15	3	26
1930	16	24	6	41
1940	18	23	8	47
1945	29	35	17	64

Source: Census of Agriculture: 1920, Vol. VI, p. 88. Water piped into house. Census of Agriculture: 1930, Vol. II, p. 56. Water piped into farmers' dwelling houses. Census of Housing: 1940, Vol. II, Part 1, p. 20. All occupied rural farm dwelling units, both operators and nonoperators, reporting water supply. Census of Agriculture: 1945, Vol. I.

Table 15.- Percentage of farm operators reporting a telephone. United States by regions, 1920-45.

Year	: : United States	: : North	: : South	: : West
1920	39	62	20	32
1930	34	59	14	35
1940	25	43	9	28
1945	32	54	12	39

Source: Census of Agriculture: 1920, Vol. VI, p. 88. Census of Agriculture: 1930, Vol. II, p. 56. Census of Agr.: 1940, Vol. III, calculated from data on p. 541. Census of Agr.: 1945, Vol. I.

Table 16.- Percentage of farm operators reporting an automobile.  
United States by regions, 1920-45.

Year	United States	North	South	West
1920	31	48	14	42
1930	58	79	39	71
1940	58	80	37	73
1945	62	82	42	77

Source: Census of Agriculture: 1920, Vol. VI, p. 88. Census of Agriculture: 1930, Vol. II, p. 54. Census of Agriculture: 1940, Vol. III, p. 512. Census of Agriculture: 1945, Vol. I.

Table 17.- Percentage of farms located on all weather roads,  
United States by regions, 1925-45.

Year	United States	North	South	West
1925	23	31	15	34
1930	24	41	27	46
1940	49	65	34	59
1945	64	70	58	72

Source: Census of Agriculture: 1940, Vol. III, p. 542. Census of Agriculture: 1945, Vol. I.

Table 18.- Percentage of farm operators reporting radios.  
United States by regions, 1930-45.

Year	United States	North	South	West
1930	21	39	5	31
1940	60	79	42	78
1945	73	85	60	84

Source: Census of Population: 1930, Vol. VI, calculated from data on pp. 52-53. Census of Housing: 1940 Vol. II, Part 1, pp. 38-39. All occupied rural-farm dwelling units, both operators and nonoperators, reporting on radio. Census of Agriculture: 1945, Vol I.

Table 19.- Percentage of farm operators reporting daily or weekly newspaper. United States by regions, 1945.

Type of Newspaper	United States	North	South	West
All types	70	90	54	79
Total daily	56	78	38	70
Total weekly	20	21	21	11
Daily only	50	69	33	68
Weekly only	14	12	16	9
Both daily and weekly	6	9	5	2

Source: Quarterly Survey of Agriculture, April 1945.

Table 20.- Percentage of farm operators reporting receipt of magazines by number of magazines. United States by region. 1945.

Number of Magazines Received	United States	North	South	West
None	29	11	45	24
1	15	12	19	13
2	18	18	16	26
3	15	19	10	18
4	9	15	5	9
5	6	10	2	7
6 or more	8	15	3	3

Source: Quarterly Survey of Agriculture, April 1945.

Table 21.- Percentage of farm operators reporting sewing machines, power driven washing machines and self-heating irons. United States by region, 1945.

Type of Convenience	United States	North	South	West
Sewing machine	82	89	75	84
Power driven washing machine	49	79	22	73
Self-heating irons	51	69	31	82

Source: Quarterly Survey of Agriculture, April 1945.

Table 22.- Percentage distribution of last occasions requiring health care during preceding 12 months reported by farm operators by type of occasion and type of health care received. United States, October 1945.

Type of health care received	Type of occasion				
	All	Serious illness	Child birth	Serious injury	Non-accidental death
Total	100	100	100	100	100
Hospitalization and doctor of medicine	42	43	52	24	42
Doctor of medicine	49	50	34	60	45
Other	9	7	14	10	13

Source: Quarterly Survey of Agriculture, October 1945.

Table 23.- Percentage distribution of last occasions requiring health care during preceding 12 months reported by farm operators by type of health care received. United States by regions. October 1945.

Type of health care received	United States			
	North	South	West	East
Total	100	100	100	100
Hospitalization and doctor of medicine	47	38	67	56
Doctor of medicine	45	53	21	39
Other	8	9	12	5

Source: Quarterly Survey of Agriculture, October 1945.

Table 24.- Percentage of heads and housewives in 2,530 farm operators' households reporting one or more instances of participation during preceding year in specified types of organized local community activities, United States, October 1945.

Types of organized local community activity	Percentage attending one or more meetings	
	Heads of household	Housewives
All types	80	76
Religious meetings	69	68
School functions other than educational	24	24
General farmers' organizations	16	8
Lodge or club meetings	12	13
Educational	12	8
Other farmers' organizations	5	2
Other nonfarm organizations	5	2
All other	26	25

Source: Quarterly Survey of Agriculture, October 1945.

