

Farm Housing Needs



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Farm Housing Needs in Minnesota¹

VERNON DAVIES²

MINNESOTA, in common with other sections of the nation, is facing a serious housing problem. Particular attention has been focused on the situation in the larger towns and cities of the state where families have had to adjust themselves to overcrowding, makeshift quarters, and evictions. What is not so well known is that thousands of farm families are living in substandard dwellings and are doing without conveniences that have long been regarded as necessities by the average city dweller.

It is probably the individual ideals, tastes, and ability to pay which determine in large measure what kind of houses are built. Ability to pay for better housing, so far as farm people are concerned, depends in large measure upon the amount and quality of the land which the family has to operate, and the general market and price level for farm products. It is true also that ability to pay is dependent to some extent upon the ambition and managerial ability of the individual. In general, however, it is reasonable to expect better housing on farms when agriculture is prosperous, and to find it on better rather than the poorer soil; on larger rather than smaller farms.

With a variety of influences at work determining the character of housing, it is inevitable that wide variations will occur among different sections of the nation, and even in the same state, county, city, village, or neighborhood. Some of these variations will be indicated in the following pages of this study, which deals with the housing needs of Minnesota farm families and some of the problems likely to arise in connection with any program designed to improve farm homes in the state.

¹ Acknowledgments are due Hazel Clampitt and Marcia Pinches for tabulation of the data and preparation of the charts, maps, and manuscript.

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SOURCES OF DATA

Only within recent years has there been sufficient interest in rural housing to collect systematic information about it. The 1920 and 1930 United States Agricultural Censuses give the number of farm operators' dwellings with electric lights, with water piped inside, and, for 1930 only, with water piped into a bathroom. In 1930, for the first time, the estimated value of farm homes was obtained. The 1934 Survey of Rural Housing in the United States, made under the direction of the United States Department of Agriculture, covering 43 states and more than 622,000 farm dwellings, collected data on age, size, construction, and type of structure, and on various items of household equipment. Of greatest value is the U. S. Population Census of 1940 which presents a mass of detailed information, much of which is broken down onto a county and community basis. Because of the wartime diversion of building materials and construction labor to military projects the latter census probably gives a fairly reliable picture of housing conditions as they exist at present. Chief reliance will therefore be placed on this source of information.

BACKGROUND

Less than a century ago the landscape of Minnesota was dotted with log cabins and sod huts. These were replaced by wooden frame structures when lumber became available. The use of lumber as the principal construction material has persisted in large part to the present time, as 93.5 per cent of Minnesota farm homes in 1940 were of the traditional frame construction with wood exteriors.

If we regard as pioneer farm homes all houses built prior to 1890, then there were 29,011 such structures remaining, and in large part occupied, in 1940.

Table 1. Age of Minnesota Farm Homes, 1940

Year built	Age in 1940	Number	Per cent
Total		218,580	100.0
1935-1939	5 years or less	16,059	7.3
1930-1934	6 to 10	12,406	5.7
1925-1929	11 to 15	12,815	5.9
1920-1924	16 to 20	18,089	8.3
1910-1919	21 to 30	44,076	20.2
1900-1909	31 to 40	44,111	20.2
1890-1899	41 to 50	35,571	16.3
1880-1889	51 to 60	19,284	8.8
1860-1879	61 to 80	8,851	4.0
1859 or before	80 or over	876	0.4
Not reporting year built		6,442	2.9

Source: 16th U. S. Census, 1940, Housing, 2nd Series, General Characteristics, Minnesota, p. 9.

Nearly 41 per cent of the 1940 Minnesota farm homes were erected between 1900 and 1920, as shown in table 1. Agricultural prices had a generally favorable relation to industrial prices during this time, particularly during the period of World War I.

From 1920 to 1930 there was a slump in farm home construction that was undoubtedly related to the unfavorable relation of farm prices to other prices during most of the decade. About 13,000 less houses were constructed during the 1920's as compared with the preceding 10-year period. This slump continued on through much of the 1930 decade. There was considerable increase in construction activity on farms from 1939 to 1943 which was followed by another recession resulting from World War II.³

As figure 1 shows, the decline in the building of farm homes, which began during the 1920's, was accompanied by a similar decrease in the construction of urban homes. The failure of rural nonfarm construction to follow the urban and farm trends during the 1930's is explained in part by the fact that city residents have shown an increasing desire to build homes for themselves in suburban, rural nonfarm areas.

³ *Statistical Abstract of the United States, 1946*, p. 766. U. S. Department of Commerce, Bureau of the Census, Washington, D. C.

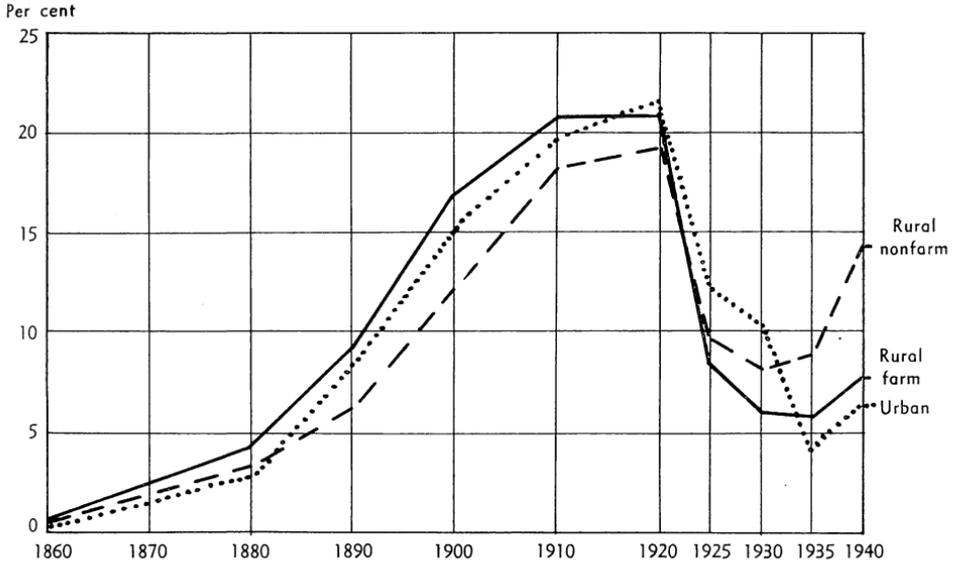


Fig. 1. Dwelling units, year built, rural farm, rural nontfarm, and urban, Minnesota, 1860-1940

NUMBER OF MINNESOTA FARM HOMES

In 1940 there were 218,580 farm houses in Minnesota of which 6,821 were vacant and for sale or rent; 2,425 others were vacant but not for sale or rent. Slightly more houses were vacant on farms than in the cities of the state, as may be seen by examining table 2. The highest proportion of vacancies was to be found in the villages.

Since 1940 there has unquestionably been an increase in the number of dwellings vacated by farm families be-

cause of the decrease in the number of farm units resulting from consolidation of holdings and also the abandonment of farms, particularly in the northern cutover area. In Koochiching, St. Louis, Lake, Cook, and Cass counties there was a combined total of 44,640 fewer acres and 1,550 fewer farms in 1945 as compared with 1940, according to State Farm Census data.⁴ Every county in the state except two, Chipewewa and Nobles, has shown a decrease in the number of farms since 1940 ac-

⁴ State Farm Census, issued annually by the Minnesota State Department of Agriculture, St. Paul, Minnesota.

Table 2. Characteristics of Housing, State, Urban, and Rural, Minnesota, 1940

Tenure and occupancy	State		Urban		Rural nonfarm		Rural farm	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
All dwelling units	773,042	100.0	394,693	100.0	159,769	100.0	218,580	100.0
Owner occupied	402,318	52.0	184,886	46.8	82,143	51.4	135,289	61.9
Tenant occupied	326,041	42.2	198,450	50.3	53,546	33.5	74,045	33.9
Vacant, for sale or rent	28,808	3.7	10,049	2.6	11,938	7.5	6,821	3.1
Vacant, not for sale or rent	15,875	2.1	1,308	0.3	12,142	7.6	2,425	1.1

Source: 16th U. S. Census, 1940, Housing, 2nd Series, General Characteristics, Minnesota, p. 7.

ording to this census, which defines a farm in operational terms and thus excludes many small plots of three acres or more on which families live who are not engaged in agriculture as an occupation but who are, nevertheless, classified as farm households by the federal census. The total loss in number of farms, according to the State Agricultural Census figures, was 12,637 from 1940 to 1945. The Federal Census of Agriculture, which uses place and size of unit rather than occupation as a basis for determining what is a farm, shows a loss of 6,580 farms in the state from 1940 to 1945. This decline in the number of farms, a fact on which both censuses agree, must obviously be taken into account in estimating future farm housing needs in the state.

Nothing of a reliable nature is known as yet as to the number of village and city residents who, because of the housing shortage, have occupied houses which were vacated by farm families or of the farm houses that have been moved to towns or cities. The bearing this has on future housing needs of farm families is also evident.

MINNESOTA FARM HOUSEHOLDS

Any program designed to add new or to improve the quality of old farm dwellings obviously should first consider the size and composition of the farm families or households directly

concerned. As farm households are, on an average, larger than village households, farm houses should be correspondingly larger, and as farm dwellings are generally used for several decades, and often by several families, they should be designed to meet the age, sex, and family relationship needs of the typical or usual farm household.

In 1940 the farm population of Minnesota included 903,954 persons living in 208,749 private households and 1,486 individuals living in boarding or lodging houses, labor camps, etc. The relationship of the persons living in private households to the heads of these households is shown in table 3.

There were 183,933 married men living in private farm households, of whom 180,172 were living with their wives. Of these married men with spouses present there were 166,952 who were classified as heads of the households in which they lived, leaving 13,220 married couples who lived in households in which the husband was not the head. Probably a sizable proportion of these couples were living with the elderly parent or parents of the husband or wife. This conclusion is supported by the fact that living on farms were 45,014 persons 25 years of age and older who were the children of the head of the households in which they lived and 11,320 who were grandchildren of the heads of the households in which they resided. However desirable this "dou-

Table 3. Persons in Private Households on Minnesota Farms, 1940

Relationship to head	Total		Male		Female	
	Number	Per cent	Number	Per cent	Number	Per cent
Total	903,954	100.0	498,911	100.0	405,043	100.0
Head (No. of households)	208,749	23.1	197,060	39.5	11,689	2.9
Wife	166,952	18.4	0	0	166,952	41.2
Child	420,720	46.5	237,124	47.5	183,596	45.3
Grandchild	11,320	1.3	5,910	1.2	5,410	1.3
Parent	16,891	1.9	6,439	1.3	10,452	2.6
Other relative	38,447	4.3	21,480	4.3	16,967	4.2
Lodger	14,500	1.6	9,212	1.9	5,288	1.3
Hired worker	26,375	2.9	21,686	4.3	4,689	1.2

Source: 16th Census of the United States, 1940, Population, Vol. IV, Pt. 3, Table 12, p. 256.

bling up" of generations may be in some homes, it is certain to lead to conflict in others.

By adding 66,658 persons who are relatives of the heads of the households in which they live to the number of lodgers (14,500) and hired workers (26,375), we get a total of 107,533 individuals living in 208,749 Minnesota farm homes who are neither the spouses nor the children of the heads of these households. How adequate the farm homes of the state are with respect to size or space to meet the needs of mixed families and nonrelatives can be inferred from the census data.

Table 4 shows the room-person ratio for tenure groups in the urban, rural nonfarm, and rural farm areas of Minnesota as shown by the 1940 census. Owners, it may be noted, have a higher ratio of rooms per person in both the city and country. It may also be observed that while owner-occupied farm houses have more rooms than do owner-occupied homes in the villages or cities of the state, they have less rooms per person. This results from the fact that farm households are, on an average,

larger than urban or rural nonfarm households. It is interesting to note in this connection that only 10 states, principally in the South, have larger farm households than does Minnesota, as shown in table 5. One reason why the state receives this ranking is that an unusually high proportion of hired workers live in the homes of Minnesota farm operators, 26,375 or 2.9 per cent of the total farm population living in private households, which is almost two and one-half times the national average of 1.2 per cent. This should be interpreted in the light of the fact that a high proportion of farm operators in some states are not able to hire, let alone share housing quarters with a hired hand.

While the size of farm households is relatively large the median number of rooms in the farm homes of the state is also large in comparison with farm dwellings elsewhere. Minnesota ranks 18th among the states in this regard. Included among the states with larger farm houses are New York (median number of rooms, 7.69), New Hampshire (7.26), and Rhode Island (7.10), as shown in table I in the Appendix. Both from the standpoint of household size and expense of upkeep, a considerable proportion of the farm homes just mentioned are probably too large.

Inasmuch as farm dwellings are generally used over a period of decades and by more than one family, it may be taken as a desirable standard that every farm home located on an adequate farm should have at least four rooms, because the average-sized farm household is somewhat in excess of four persons, 4.33 in 1940, and will undoubtedly be nearer to four than any other whole number for some time to come. Of 216,105 farm homes in Minnesota for which number of rooms was reported in 1940, 6,543 were one-room, 13,376 were two-room, and 17,370 were three-room structures. These constitute a total of 37,289 homes with less than four

Table 4. Comparison of Median Number of Rooms and Persons per Occupied Household by Tenure Groups in Minnesota, 1940

Area	Median number of		Ratio of rooms per person
	Rooms	Persons	
State			
Owners	5.60	3.49	1.60
Tenants	4.44	3.24	1.37
Urban			
Owners	5.52	3.42	1.61
Tenants	4.03	2.92	1.38
Rural nonfarm			
Owners	5.31	3.04	1.75
Tenants	4.28	3.29	1.30
Rural farm			
Owners	5.94	3.91	1.52
Tenants	5.95	4.17	1.43

Source: 16th U. S. Census, 1940, Housing, 2nd Series, General Characteristics, Minnesota, Tables 8-9, pp. 12-13.

Table 5. Ranking of Farm Dwelling Units by States According to Age, Occupancy, Size, Facilities, and State of Repair, 1940

State	Median number rooms	Median number persons per household	1.51 or more persons per room	Median estimated monthly rent	Median age of dwelling	Need major repairs	Electric lighting	Mechanical refrigeration	Running water	Private flush toilet	Private bath	Central heating
			Per cent		Years				Per cent			
New York	1	12	1	5	44	12	9	8	11	9	11	5
Vermont	2	28	2	8	47	26	15	18	2	6	7	12
New Hampshire	3	5	6	6	48	5	10	10	6	7	8	6
Rhode Island	4	6	4	3	46	3	5	4	7	5	5	4
Connecticut	5	21	4	1	42	1	3	1	4	3	3	2
Massachusetts	6	17	4	2	43	2	1	5	3	1	2	3
Maine	7	20	12	15	45	37	16	24	14	15	18	14
Pennsylvania	9	32	10	7	41	20	14	16	13	13	13	9
Iowa	9	24	8	11	35	9	22	23	22	22	21	10
New Jersey	10	18	7	4	39	7	4	3	5	4	4	1
Wisconsin	11	36	16	14	32	24	18	28	26	26	28	8
Ohio	12	16	9	9	40	13	13	12	20	18	19	7
Michigan	13	14	13	16	33	21	8	15	17	20	20	11
Delaware	14	15	11	13	34	10	21	20	19	16	17	21
Maryland	15	35	19	12	36	17	20	14	16	14	14	18
Illinois	16	14	16	18	38	23	23	19	28	23	24	13
Indiana	17	8	18	21	37	8	19	21	27	25	26	18
Minnesota	18	38	22	17	29	14	27	38	34	33	34	16
Nebraska	19	22	14	25	30	18	28	32	21	24	23	19
South Dakota	20	33	23	29	27	32	36	46	35	36	36	20
Kansas	21	11	15	26	31	37	30	22	30	28	28	22
North Dakota	22	44	26	27	26	45	41	48	40	45	44	15
Virginia	23	43	30	33	25	27	32	26	33	30	32	34
West Virginia	24	46	32	32	23	37	31	34	36	35	35	33
Oregon	25	2	20	23	7	16	17	13	9	11	9	27
Washington	26	4	21	19	9	11	7	11	8	8	6	24
North Carolina	27	48	36	36	18	44	33	33	38	39	40	42
California	28	1	24	10	4	6	2	2	1	2	1	30
Missouri	29	10	25	34	28	33	40	41	39	37	38	31
Idaho	30	24	31	24	14	29	12	7	15	20	16	28
Florida	31	25	33	35	3	40	34	27	25	22	22	40
Colorado	32	19	28	28	17	34	24	25	23	26	25	26
South Carolina	32	47	42	44	20	22	38	36	43	41	41	46
Kentucky	34	39	38	39	21	42	43	40	45	44	45	35
Utah	35	45	38	22	22	30	6	6	10	10	10	23
Nevada	36	3	27	20	12	15	17	9	12	12	12	32
Georgia	37	42	40	42	24	41	39	42	44	43	44	43
Tennessee	38	37	40	40	19	43	42	39	42	42	42	37
Texas	39	26	35	37	11	31	35	30	24	34	29	48
Montana	40	7	29	31	16	20	29	31	31	31	31	25
Oklahoma	41	32	45	38	13	48	44	37	37	38	37	40
Alabama	42	41	46	48	15	47	45	44	46	47	47	44
Louisiana	43	34	44	42	7	35	46	43	41	40	39	44
Mississippi	44	30	41	45	10	39	47	45	47	46	46	42
Arkansas	44	27	42	46	7	46	48	47	48	48	48	46
Wyoming	46	8	34	30	5	28	25	30	28	28	30	29
New Mexico	47	40	47	47	2	25	37	35	32	32	33	38
Arizona	48	30	48	41	1	4	26	17	18	17	15	36

rooms, or 17.2 per cent of the total number of farm homes in the state. It is thus evident that one farm house out of every six is too small for the average farm family's requirements, although it is impossible to say from the data how many of these houses were occupied by family groups.⁵

Dwellings are generally defined as being overcrowded when there is in excess of 1.5 persons per room. On this basis, overcrowding existed in 8.9 per cent of Minnesota farm homes in 1940. By way of comparison 26 states had a higher proportion of overcrowding than did Minnesota. Some of the southern states had overcrowding in a quarter or more of their farm homes and in Arizona over 50 per cent of such homes had more than 1.5 persons per room.

Between 1920 and 1940 the average number of persons per farm household in Minnesota changed from 4.97 to 4.33, an average decline of nearly two thirds of a person per household. While this decrease is accounted for in part by a declining birth rate, some of it may well be due to an increasing tendency for older persons or couples to move to a village or town instead of living with a son or daughter, and his or her spouse, on the farm.

Whereas about one farmhouse out of 11 in Minnesota was, by definition, overcrowded, some homes at the other extreme had space that was not being utilized. According to the 1934 Farm Housing Survey 14.5 per cent of the Minnesota farm dwellings included in the sample had unused rooms and there was an average of 0.36 unused room for the total sample. This survey showed, on the other hand, that farm homes in the state have inadequate

closet space. There were only 1.9 closets per dwelling as compared with 3.3 bedrooms per unit. Seventy-one per cent of the homes had basements, which are, of course, suitable for storing many articles.

HOUSEHOLD CONVENIENCES

Electric lights and electric power to operate household appliances and to provide pressure for running water in farm homes are becoming recognized necessities. Nevertheless, until the Rural Electrification Administration was established in 1935 progress towards meeting this need was slow. However, since 1935 progress has been rapid. Prior to 1920 there was little inclination to extend electric power to isolated farmsteads. It was taken for granted that farm homes were generally too dispersed to distribute electricity to them at reasonable rates. Minnesota has played an important role in helping to demonstrate the incorrectness of this view. The "Red Wing project," which attracted nation-wide attention, was designed to show that electrification of centrally located power stations to farm dwellings is economically feasible. This and subsequent experiments have pointed the way to improved and practical methods of financing and distributing electric power to farms.

According to the 1920 census Minnesota ranked 26th among the states in the percentage of farm homes that were lighted by gas or electricity. Farms using these two forms of light numbered 13,539 in all. The 1930 census figures, which give the number of farm homes lighted by electricity alone, show that Minnesota ranked 29th among the states for that year, with 23,342 farm homes using electricity. The 1940 data show Minnesota ranked 27th among the states, with 59,838 farm houses having electric lights, of which 9,763 used home-operated plants. How-

⁵In 1940 there were 11,544 one-person households and 32,399 two-person households in the farm population. If all the small houses were occupied by these small "families" no problem would exist, because there would be no more than one person per room as a rule. However, this admirable adaptation of people to housing does not always occur, and it frequently happens that small families have the large houses.

ever, this constituted only 29.9 per cent of the total number of farm homes for that year, while almost all the urban homes in the state, 98.8 per cent, made use of this utility in 1940, as shown in figure 2.

The war did not fully stop the extension of electric service to farm households, and now that the war has come to an end, the Rural Electrification Administration and private enterprise should be able to expand the service to include a much larger proportion of the farm population. According to official estimates of the REA there were, as of July 1, 1945, some 92,500 Minnesota farms with central station electric service. If to these is added the number of home-operated plants, a figure in excess of 100,000 is reached, representing over half of the total number of farms in the state.

One electrical appliance, the radio, has found high favor among farm families of Minnesota, as almost seven out of every eight farm homes had receiving sets in 1940. In only eight other states, Massachusetts, Connecticut, Rhode Island, New Jersey, Iowa, North Dakota, Utah, and Washington, were receiving sets on farms more prevalent. The presence of radios in such numbers places the agricultural programs broadcast by the state university, farm organizations, and others in a favorable position to achieve their objectives. Certainly the radio ranks as a major medium of education and entertainment for farm families.

Minnesota does not make a favorable showing in comparison with other states with respect to water and bathroom facilities and mechanical refrigeration. There was a higher proportion of flush toilets in farm homes in 32 other states, running water and private bath in 33 other states, and mechanical refrigeration in 37 other states according to 1940 census data. Only North Dakota, South Dakota, and Missouri in the Midwest show a lower ranking, and the

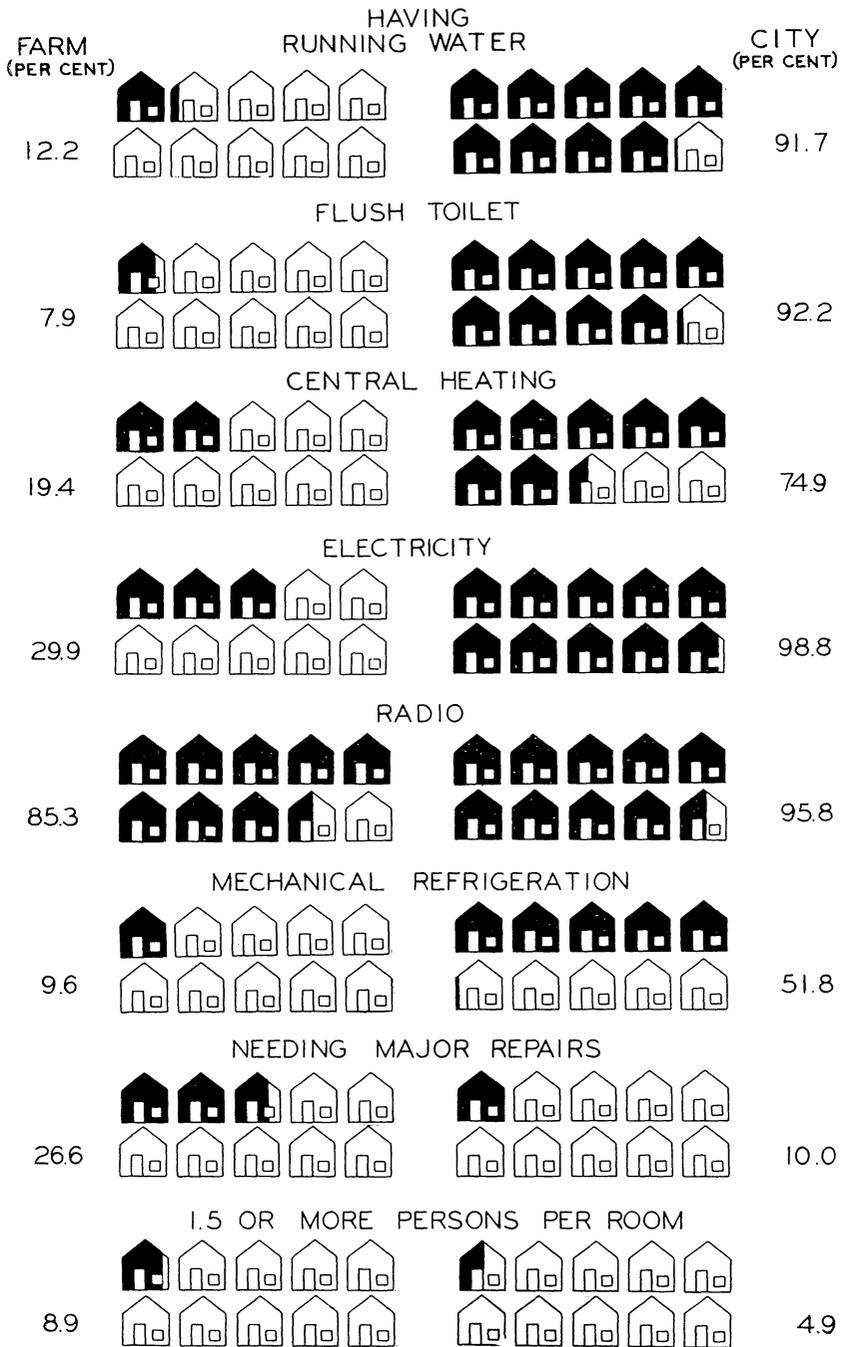
eastern states show a much higher proportion of farm houses having such equipment, as shown in table 5. Possession of plumbing facilities and mechanical refrigeration is also much less common in farm as compared with urban dwellings within Minnesota, as may be noted in figure 2.

The further extension of electricity as a source of power to provide water under pressure should stimulate the installation of plumbing equipment and refrigeration in farm dwellings. Yet something of a lag in the purchase of such facilities is also evident. In 1940 about two and one-half times as many homes, 29 per cent as compared with 12.2 per cent, were lighted electrically as had water piped inside. United States Department of Agriculture engineers have "estimated that the farm woman spends 46 of her working days and walks 100 miles in a year supplying her household with water. This is equivalent to unloading 22 cars of coal of 30 tons capacity each."⁹ Another example of lag in the purchase of equipment is that over three times as many occupied farm homes in the state, 29.9 per cent as compared with 9.6 per cent, had electric lights as had mechanical refrigeration. During the war, of course, it was almost impossible to buy mechanical refrigerators.

The installation of appliances involving the use of water generally necessitates the addition of a sewage system and very often remodeling or redesigning the house, all of which adds to the cost. Along with the extension of electric service there will obviously need to be a program of training rural craftsmen to service and repair electrical, plumbing, and sewage systems in farm homes.

That the state ranks well with regard to the proportion of farm homes equipped with central heating (table 5)

⁹ "The Agriculture and Farm Home Program for Alabama," Alabama Polytechnic Institute Extension Circular 77 (Auburn) Jan. 1925, p. 38.



EACH SYMBOL = 10 PER CENT

Fig. 2. Minnesota farm and city dwellings compared, 1940

is accounted for in part by the fact that Minnesota winters are longer and colder than in a majority of the states and this means of warming a home is therefore more essential. Nevertheless, Minnesota with 19.4 per cent of its farm homes using central heat does not compare favorably with certain other states with comparable cold winter months, such as Massachusetts and Connecticut where 44.6 and 44.8 per cent of the farm homes, respectively, have central heating facilities. As figure 2 shows, the proportion of Minnesota urban homes using central heat is much higher than the proportion of farm homes in the state having this facility.

AGE AND STATE OF REPAIR OF FARM HOMES

It is expected that Minnesota should have an older median age of farm homes, 30.9 years, as compared with more newly settled states to the west. Minnesota farm dwellings are also older in terms of median age than are farm houses in a number of the southern states, including Texas where the median age is 20.7 years, Mississippi where it is 20.4 years, and Louisiana where it is 19.4 years. Probably the main reason for this difference is that present Minnesota farm dwellings were built much more substantially in the first place than were the "shack" homes built for many sharecroppers in the South.

The fact that Minnesota farm dwellings were more sturdily constructed, coupled with the relative agricultural wealth of the state, helps to account for the good showing it makes with reference to repair needs of farm homes in 1940. Whereas farm houses in 28 other states have a younger median age, only 13 other states showed less need of repair for homes of this category. Slightly more than a fourth, 26.6 per cent, of Minnesota farm homes were classified

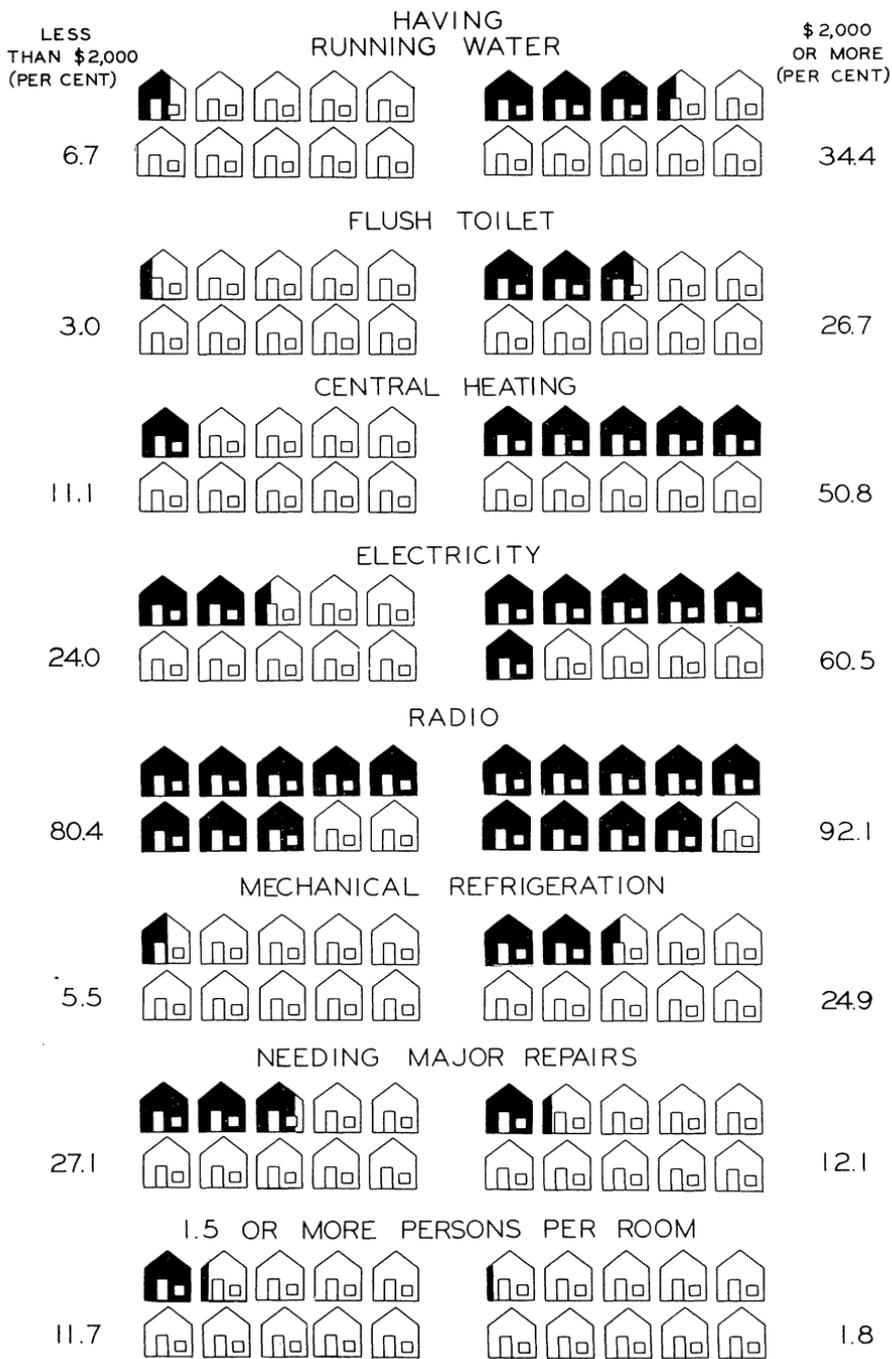
as needing major repairs, as compared with only 10.0 per cent of the homes in the urban centers of the state.

HOUSING VALUES

Minnesota rates rather well with regard to the median value of owner-occupied urban, rural nonfarm, and rural farm dwellings, ranking 16th, 14th, and 19th respectively in state comparisons. Only one other of the West North Central states, Iowa, shows a higher median value for owner-occupied farm homes—\$1,797 as compared with \$1,335 for Minnesota in 1940.

When constructing new homes or improving old ones, farmers, like others, show certain preferences as to household conveniences. These preferences are, of course, determined to a considerable extent by the relative cost of various facilities. The fact that radio sets are possessed by a high proportion of farm families is due, in part, to the cheapness of sets and the ease and inexpensiveness of installation. How the choice of different facilities is related to housing values is indicated in figure 3. Houses valued at \$2,000 or more show a much higher proportion of the conveniences listed, as compared with houses valued at less than this amount. Obviously the possession of these conveniences contributes to the superior value placed on these homes.

When comparisons are made of the median value of urban, rural nonfarm, and rural farm homes within Minnesota, some marked disparities are evident, as shown in table 6. For urban owner-occupied homes the median value was \$3,511, which is over two and one-half times the median value of owner-occupied farm homes (\$1,335), while the value of owner-occupied nonfarm homes was \$1,876 or about 40 per cent above the value of rural farm homes of the same tenure group. Over a third, or 36.5 per cent, of Minnesota owner-occupied farm homes were



EACH SYMBOL = 10 PER CENT

Fig. 3. Low and high value owner-occupied farm homes compared, 1940

Table 6. Value of Owner-occupied Homes, Urban, Rural Nonfarm, and Rural Farm, Minnesota, 1940

Value	Urban		Rural nonfarm		Rural farm	
	Number	Per cent	Number	Per cent	Number	Per cent
Less than \$500	3,280	1.8	9,247	11.5	20,219	16.0
500- 999	6,887	3.8	11,201	13.9	25,869	20.5
1,000-1,999	26,695	14.9	22,324	27.8	44,057	35.0
2,000-2,999	33,195	18.5	15,914	19.8	22,072	17.5
3,000-4,999	67,064	37.4	15,885	19.8	11,351	9.0
5,000 or more	42,297	23.6	5,835	7.2	2,501	2.0
Total	179,418	100.0	80,406	100.0	126,069	100.0
Median value	\$3,511		\$1,876		\$1,335	

Source: 16th U. S. Census, Housing, 2nd Series, General Characteristics, Table 16, p. 17.

valued at less than \$1,000 in 1940 as compared with 25.4 per cent of rural nonfarm and 5.6 per cent of urban-occupied homes in the same value range. These differences are to be discounted to some extent, however, because a large proportion of farm homes are not subject to municipal taxes, and farm housing values are probably less affected by speculation in real estate. Moreover, the figure given in the census for farm dwellings does not include the value of the land on which the structure is located, the reverse being true of the value given for rural nonfarm and urban homes.

REGIONAL DIFFERENCES IN FARM HOUSING

Merely to compare Minnesota and other states with respect to the adequacy of farm housing or farm life in general without taking into account sectional variations within the state would be somewhat misleading. The agricultural economists have noted the significance of regional differences and have found it useful to divide the state into type-of-farming areas. These areas show considerable variation, not only with reference to farm crops and practices but in a broader economic and social sense as well.

Table 7 permits a comparison of farm housing facilities, extent of overcrowd-

ing, age, and state of repair for type-of-farming areas in the state, while figures 4 through 6 make possible a more detailed examination of differences among counties for certain items.

Areas 6, 7, and 8, comprising roughly the northern half of the state, have a generally unfavorable ranking on household facilities, overcrowding, and state of repair. One rather unexpected finding is that whereas area 8, the northern cutover area, showed the highest proportion of farm homes built since 1920, it also had the highest proportion of homes needing major repairs. Either a considerable number of the houses built prior to 1920 are in a generally inferior condition or else many of the homes built since that year were not well constructed. Perhaps both conditions are true to some extent.⁷

While the need for major repairs was most prevalent in the northern half of the state, there were several counties either partly or wholly in the southern half, notably Grant, Douglas, Stevens, Traverse, Big Stone, Scott, Dakota, and

⁷Dr. A. A. Dowell, Professor of Agricultural Economics, University of Minnesota, makes the following pertinent observation with reference to this situation: "The great depression of the 1930's was an important factor here. Ten per cent of all farms of the state were owned by corporate lending agencies in 1938, and only a modest decrease occurred from 1938 to 1940. Foreclosure rate was highest in northwestern, west central, and east central parts of the state. People did not repair buildings when facing loss of farms, or when incomes were low, which applied in some areas through most of the 30's."

Table 7. Percentage of Minnesota Farm Homes with Specified Items of Equipment, Occupancy, Age, and State of Repair, by Type-of-Farming Areas

Type-of-farming areas	Per cent of occupied dwellings with				Per cent of total dwellings			Per cent of occupied dwellings with 1.5 or more persons per room
	Electric light	Mechanical refrigerators	Flush toilet	Running water	Built since 1920	Needing major repairs	With central heating	
1. Southeast: dairy and livestock	36.8	12.9	13.1	20.1	15.1	24.3	26.2	3.1
2. South-central: dairy and livestock	46.1	14.5	12.6	19.8	18.4	23.8	26.9	3.9
3. Southwest: livestock and cash grain	39.9	15.2	9.4	12.9	18.0	13.1	22.0	4.1
4. West-central: livestock and cash grain	27.0	8.7	6.0	8.6	16.5	28.4	18.3	4.8
5. East-central: dairy and potatoes	22.1	5.2	4.9	9.9	29.0	26.3	11.6	10.2
6. Northwestern: dairy and livestock	15.1	2.5	2.6	4.0	29.3	31.7	10.9	13.8
7. Red River Valley: small grain, potatoes, and livestock	15.8	4.0	4.2	7.2	19.8	19.7	13.7	10.9
8. Northern cutover: dairy, potatoes, and clover seed	20.3	3.1	3.5	6.5	57.9	31.8	8.7	20.2
9. Twin City suburban: truck, dairy, and fruit	75.6	33.6	35.4	43.8	37.1	22.2	42.0	4.2

Source: 16th U. S. Census, Housing, 2nd Series, General Characteristics, 1940.

Olmsted, in which 35 per cent or more of the homes needed major repairs.

There is a wide variation in the median value of owner-occupied farm dwellings, ranging from \$375 in Lake-of-the-Woods and Beltrami counties to \$2,273 in Hennepin County. The figure for Ramsey County is even higher than for Hennepin, but the former includes a high proportion of suburban families living on small tracts who are classified as rural-farm by the census but who are "farmers" in name only. Figure 7 shows the difference in value of owner-occupied homes by counties. The census does not furnish data on the value of tenant-occupied units.

FUTURE HOUSING NEEDS ON MINNESOTA FARMS

The problem of determining future farm housing needs on Minnesota farms is by no means simple. Along with cultural change and the development of scientific technology has come a new and rising scale of values as to what is considered adequate in housing, food, clothing, recreation, medical care, and other items included in a standard of living.

That many farm families in the state live in what may appropriately be called substandard houses is amply supported by the data. It is therefore understandable why some attention is being given to ways and means of helping poorly housed farm families to obtain better houses, running water, bathtubs, flush toilets, and refrigerators in their homes. What is sometimes overlooked is that improvement of housing, as such, leaves untouched a more fundamental problem faced by these people, namely, low income. Where a farm family receives a small income it is very often due to residence on a farm unit of low fertility, or one too small to be an economical unit, and the absence of gainful employment within reasonable dis-

tance that can be used as a means of compensating for insufficient produce from the land. In short, the family lives on an inadequate farm and to provide what is considered to be an adequate dwelling unit, according to contemporary standards, may mean a diversion of part of an already meager income to pay added taxes, insurance, and upkeep.

A federal interdepartmental committee has devoted considerable attention to the question of determining the number of families living on inadequate farms, involving technical problems which will not be discussed here. The committee estimated that in Minnesota at the beginning of 1944 there were approximately 58,000 such farms on which operators spent a major portion of their employment, and about 4,000 inadequate part-time tracts on which operators lived who spent much of their time working or seeking work elsewhere. The size of these figures illustrates the magnitude of the problem faced by those who are interested in improving housing conditions among low-income farm families of the state. Fortunately, the high level of urban employment, which promises to continue through much of the 1940 decade, has attracted some farm families away from inadequate units to places where they can earn enough to afford better housing. The consolidation of farms, particularly in the northern part of the state, should prevent a considerable number from ever returning. Those who do return and those who have remained on uneconomic units can be helped to obtain improved housing facilities by raising their income to a higher level, by bringing the level of housing costs down, and by making better use of resources already available.

Existing public agencies have been able to help some farmers better their financial status through enlarged acreage and improved cropping and management techniques. Some farmers may

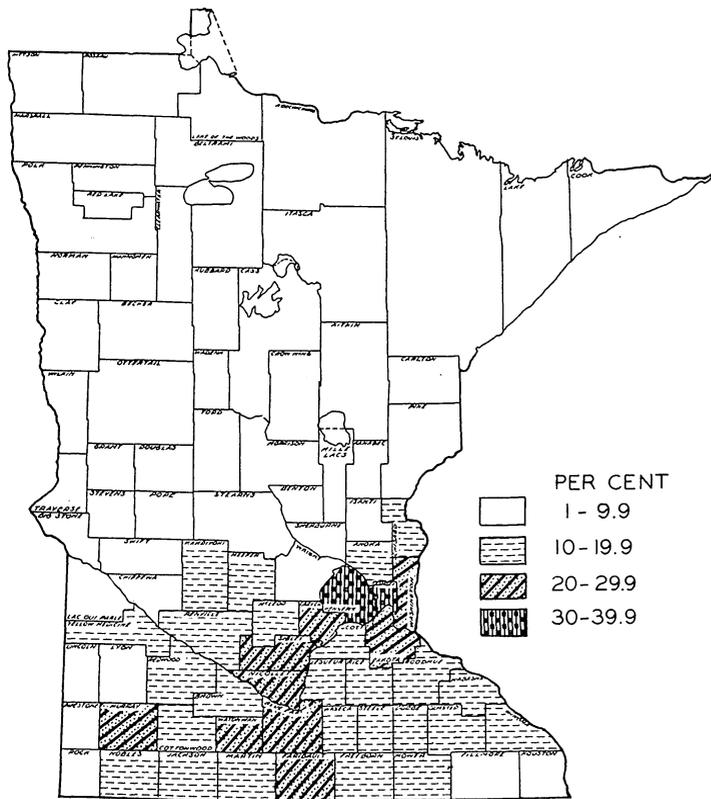


Fig. 4. Per cent of farm dwellings with mechanical refrigerators; 1940

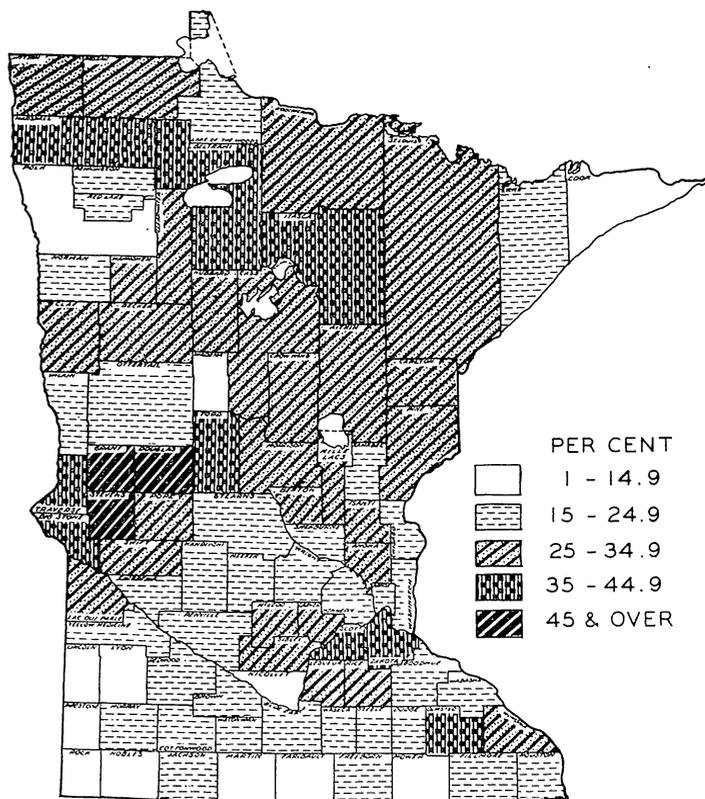


Fig. 5. Per cent of farm dwellings needing major repairs, 1940

APPENDIX—Table I. Comparison of Age, Occupancy, Size, Facilities, and State of Repair of Farm Dwelling Units by States, 1940

State	Median number rooms	Median number persons per household	1.51 or more persons per room	Median age of dwelling	Need major repairs	Electric lighting	Mechanical refrigeration	Radio	Running water	Private flush toilet	Private bath	Central heating
			Per cent	Years				Per cent				
United States	4.70	3.81	16.1	28.1	33.9	31.3	14.9	60.2	17.8	11.2	11.8	10.1
New York	7.69	3.46	1.5	63.9	25.7	67.9	29.5	83.8	44.1	31.6	30.1	32.5
Vermont	7.67	3.83	2.3	77.1	31.9	52.9	20.5	80.9	72.9	39.7	35.3	24.6
New Hampshire	7.26	3.31	2.7	80.3	19.7	63.2	28.1	82.9	57.4	37.1	34.5	28.4
Rhode Island	7.10	3.35	2.4	68.7	17.8	77.7	42.2	88.2	57.3	42.9	40.1	36.7
Connecticut	6.93	3.62	2.4	57.6	15.7	80.4	53.2	88.5	68.2	54.5	53.0	44.8
Massachusetts	6.89	3.54	2.4	61.0	16.7	81.4	41.7	89.3	71.5	56.2	53.1	44.6
Maine	6.85	3.61	4.8	64.1	37.0	51.3	15.2	77.2	33.4	19.5	17.4	20.4
Pennsylvania	6.82	3.89	4.1	53.6	28.6	57.6	23.5	77.3	37.9	22.3	21.9	27.0
Iowa	6.64	3.67	3.1	38.7	24.6	39.5	16.3	87.3	21.5	14.8	15.4	26.5
New Jersey	6.57	3.55	2.8	45.4	23.4	80.3	47.0	87.6	61.3	46.6	46.0	47.3
Wisconsin	6.56	3.94	5.7	35.1	30.8	49.3	13.6	83.0	19.0	11.4	11.5	27.1
Ohio	6.53	3.53	4.0	46.0	26.1	59.3	25.3	80.2	23.2	16.7	16.6	27.6
Michigan	6.40	3.51	5.2	36.3	28.8	68.6	24.0	83.7	28.2	16.6	16.0	26.0
Delaware	6.20	3.52	4.3	37.7	25.0	41.0	19.9	71.1	25.1	17.7	17.5	12.3
Maryland	6.17	3.93	7.1	38.8	27.9	42.6	24.2	68.7	30.0	21.7	21.7	16.7
Illinois	5.96	3.51	5.7	40.2	30.4	38.5	20.1	80.4	16.1	12.9	13.3	22.9
Indiana	5.90	3.39	5.8	39.8	24.5	49.2	19.8	77.5	17.9	11.9	12.0	16.7
Minnesota	5.86	4.01	8.9	30.9	26.6	29.9	9.6	85.3	12.2	7.8	7.7	19.4
Nebraska	5.85	3.64	5.3	33.3	28.4	28.5	12.2	76.7	22.3	12.4	14.0	16.3
South Dakota	5.66	3.90	9.7	30.1	35.4	17.9	4.8	81.7	11.8	4.8	5.2	15.1
Kansas	5.57	3.42	5.4	34.8	37.0	27.3	17.1	73.2	15.7	10.0	11.5	9.6
North Dakota	5.10	4.24	15.0	29.4	43.4	15.5	2.3	87.2	6.0	2.9	3.2	20.2
Virginia	5.08	4.22	17.5	28.7	32.3	23.7	14.3	46.9	12.3	8.6	8.7	3.0
West Virginia	4.98	4.32	19.5	26.9	37.0	24.7	11.8	56.4	10.6	6.1	6.1	3.5
Oregon	4.82	3.19	8.2	19.4	27.3	59.7	24.6	81.4	50.8	29.2	33.5	7.1
Washington	4.70	3.24	8.5	19.8	25.6	70.9	26.1	85.8	55.6	33.5	36.4	9.2
North Carolina	4.49	4.53	22.8	24.8	40.0	23.4	11.9	46.4	6.9	4.1	4.1	0.8
California	4.48	3.18	12.3	18.2	19.8	81.2	50.7	84.1	77.4	54.8	59.8	5.5
Missouri	4.44	3.41	14.6	30.7	36.2	15.9	8.5	60.5	6.3	4.6	4.7	4.8
Idaho	4.15	3.67	18.6	22.4	33.1	59.4	30.4	83.3	31.3	16.6	18.0	5.9
Florida	4.13	3.69	20.7	16.3	38.1	22.5	14.0	39.4	19.3	14.8	15.0	1.0
Colorado	4.12	3.57	16.7	23.8	36.4	34.6	14.9	73.5	21.3	11.4	12.4	7.3
South Carolina	4.12	4.44	25.7	25.8	29.3	16.7	10.0	30.9	5.3	3.8	3.8	0.4
Kentucky	4.11	4.02	23.9	25.9	39.0	15.0	8.8	49.3	4.2	3.0	3.0	2.2
Utah	4.09	4.29	23.9	26.0	33.2	74.5	34.6	86.3	50.5	29.7	30.3	8.3
Nevada	4.06	3.22	16.5	22.1	26.7	49.8	28.3	72.0	43.1	26.0	29.3	3.6
Georgia	3.95	4.19	24.4	28.3	38.5	16.1	7.2	34.0	5.0	3.1	3.2	0.7
Tennessee	3.91	4.00	24.4	25.2	39.3	15.3	9.2	46.6	5.8	3.6	3.7	1.4
Texas	3.89	3.72	21.4	20.7	34.3	18.4	13.2	49.4	19.7	7.4	11.1	0.4
Montana	3.86	3.36	17.4	23.5	28.6	27.8	12.7	81.1	14.7	8.3	9.0	9.0
Oklahoma	3.71	3.89	27.1	22.2	51.0	14.4	9.7	54.4	8.0	4.4	5.1	1.0
Alabama	3.66	4.18	29.7	23.3	46.8	12.8	6.5	30.8	3.4	2.2	2.2	0.5
Louisiana	3.64	3.92	26.1	19.4	36.8	9.8	7.0	27.3	5.9	3.9	4.5	0.5
Mississippi	3.60	3.88	25.6	20.4	37.9	8.5	5.0	28.4	3.2	2.3	2.4	0.8
Arkansas	3.60	3.82	25.7	19.4	46.1	8.0	4.7	39.5	2.7	1.7	1.9	0.4
Wyoming	3.59	3.39	21.1	19.3	32.7	31.0	13.2	75.7	16.1	10.0	10.3	5.7
New Mexico	2.95	4.06	41.0	15.0	31.2	17.5	11.0	36.7	12.8	7.9	8.6	1.3
Arizona	1.93	3.88	50.0	9.4	19.6	30.2	23.3	43.3	26.6	17.1	18.6	2.1