

1957

The Rural Nonfarm Population of Minnesota

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Solly, M. W. (1957). The Rural Nonfarm Population of Minnesota. *Journal of the Minnesota Academy of Science*, Vol. 25 No. 1, 338-347.

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GEOGRAPHY

The Rural Nonfarm Population of Minnesota

Since 1930 the Bureau of the Census of the United States has included in its analysis of the population a category called rural nonfarm. This step represents a refining of the census analysis, since, by 1930, it had become obvious that the straight urban-rural division no longer presented the most accurate picture possible of the residence of the population of the United States. Much of the inaccuracy and confusion arises from the tendency to substitute for the word "rural" the meaning "agricultural" or "farm" population. All of the nonurban population of the United States is no longer directly tied to the land in the sense that it derives income from agricultural activity. The Bureau of the Census recognized this fact in 1930 by splitting their rural category into rural farm and rural nonfarm population, the latter category including people who live outside urban areas but who do not live on farms. In 1930 this totalled 19.3 percent of the United States population, in 1940, 20.5 percent.

For these two census years the definition of rural nonfarm included all persons living outside cities or incorporated places of more than 2,500 who did not live on farms. Thus it included persons living in a wide variety of locations ranging from isolated nonfarm homes in the open country to small unincorporated areas adjacent to large cities, and also those in small manufacturing villages, mining settlements and small trade centers.

With the introduction into the census of "urbanized areas" in 1950, a corresponding change was made in the definition of rural nonfarm population. The effect of this change was to move into the

urban category a considerable number of persons who lived in the suburbs and fringes of large cities, thus generally making the rural nonfarm population total lower than it would have been by the old definition. The category now includes people living in such types of residence as isolated nonfarm homes in the open country, villages and hamlets of fewer than 2,500 inhabitants and some of the fringe areas surrounding the smaller incorporated places.

By the new definition the rural nonfarm population of the United States in 1950 was 31 million out of 150 million, or 20.7 percent. In other words, the percentage had barely changed from the 1940 figure, whereas the urban percentage increased regularly with the increase of total population, and also abnormally because of the change in urban definition.

In Minnesota, the total population of the state in 1950 was 2,982,483. Of this, (and from here on the new census definitions apply,) 54.5 percent was urban, 24.8 percent was rural farm, and 20.7 percent was rural nonfarm. (See Fig. 1.) This 20.7 percent rural non-farm population (which totals 617,770 persons) can be mapped on a straight-forward density per square mile of area basis, as is seen

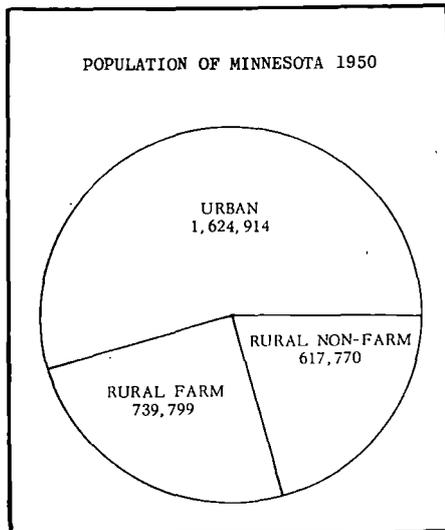


Fig. 1.

in Fig. 2. The pattern obtained is not particularly meaningful though two generalizations may be made; the area near the Twin Cities, the major metropolitan area of the state, is an area of high rural nonfarm population density; and the largely nonagricultural northern part of the state is, at this scale, an area of low rural nonfarm population

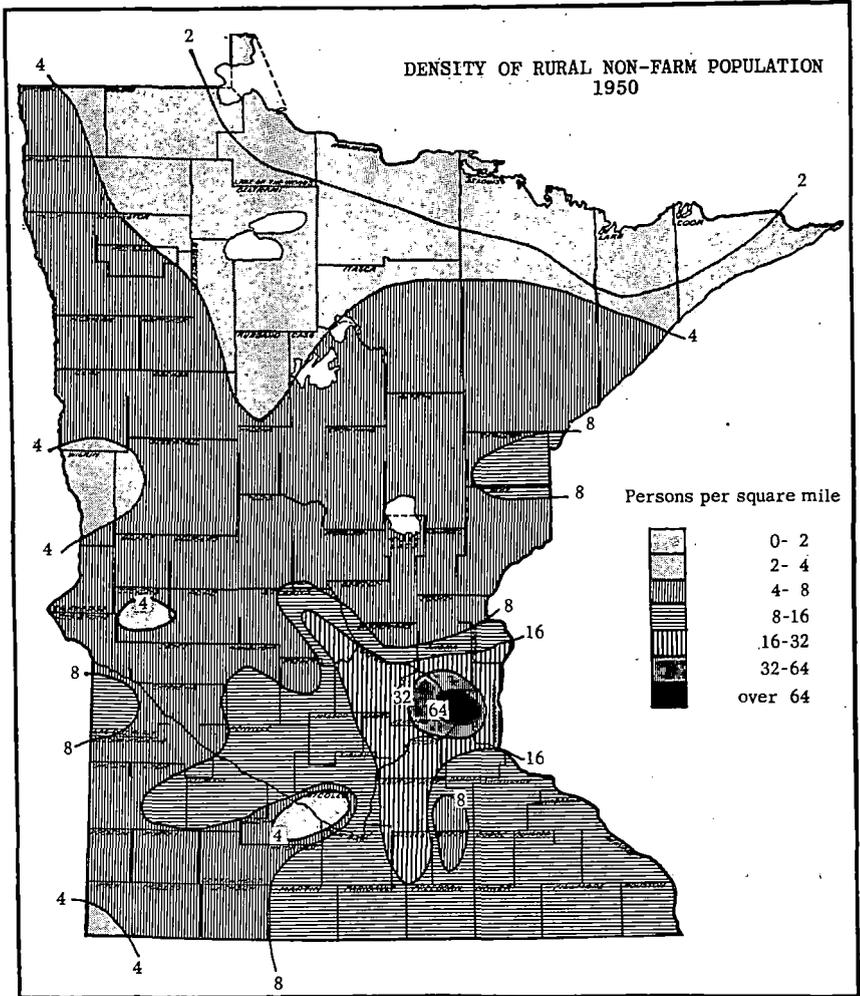


Fig. 2.

density. In these two features the rural nonfarm density map bears similarities to the total population density map of Minnesota (Fig. 3.)

But there are some inconsistencies which are best clarified by a further analysis of the 20.7 percent rural nonfarm population. One way of doing this is to separate out what has been called

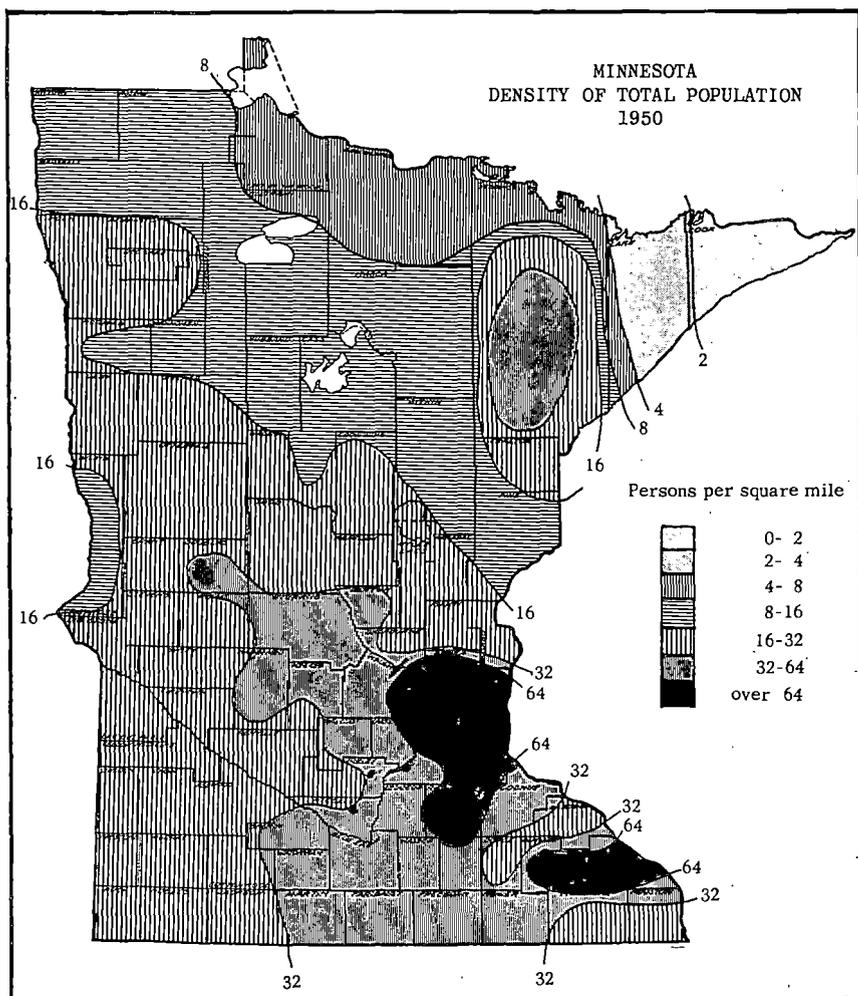


Fig. 3.

unagglomerated rural nonfarm population from agglomerated (Hart, 1955). The latter is that part of the population which lives in agglomerated settlements of less than 2,500 inhabitants. For convenience one may call settlements of between 1,000 and 2,500 inhabitants large villages, those of between 150 and 1,000 inhabitants small villages, and those having less than 150 persons hamlets.¹

As the accompanying diagram (Fig. 4) shows, nearly two-thirds of the rural nonfarm population of Minnesota lives in agglomerated settlements, 31.9 percent of it in 127 large villages; 31.5 percent in 461 small villages and 1.7 percent in 98 hamlets. Several features stand out when a population map of the state is considered: the relatively great density of small agglomerated settlements in the south and central portions of the state and their relative paucity in the north, with the exception of the iron ranges; secondly, the very great coincidence between the pattern of agglomerated settlement

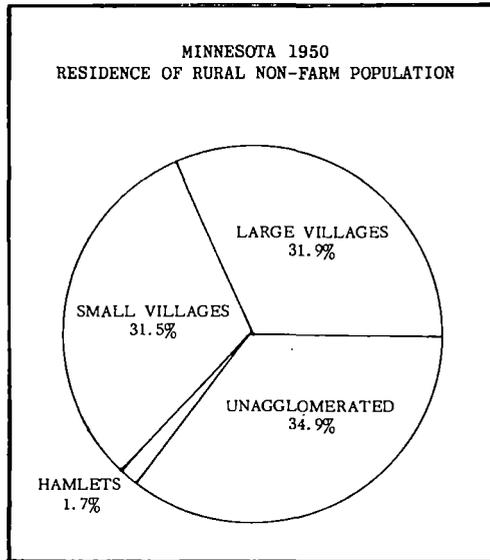


Fig. 4.

¹The lower limit of the hamlet category was taken as the size of the smallest place for which population figures were available in the 1950 Census in Minnesota. This happens to fall within the lower limit of 16-20 selected by Trewartha for the lower limit of hamlets (Trewartha, 1943).

and the railway pattern which in turn was originally related to landforms; and thirdly, the clustering of settlement along the iron ranges. (Fig. 5).

The remaining 34.9 percent unagglomerated rural nonfarm population represents the 200,000 odd persons who live in isolated non-

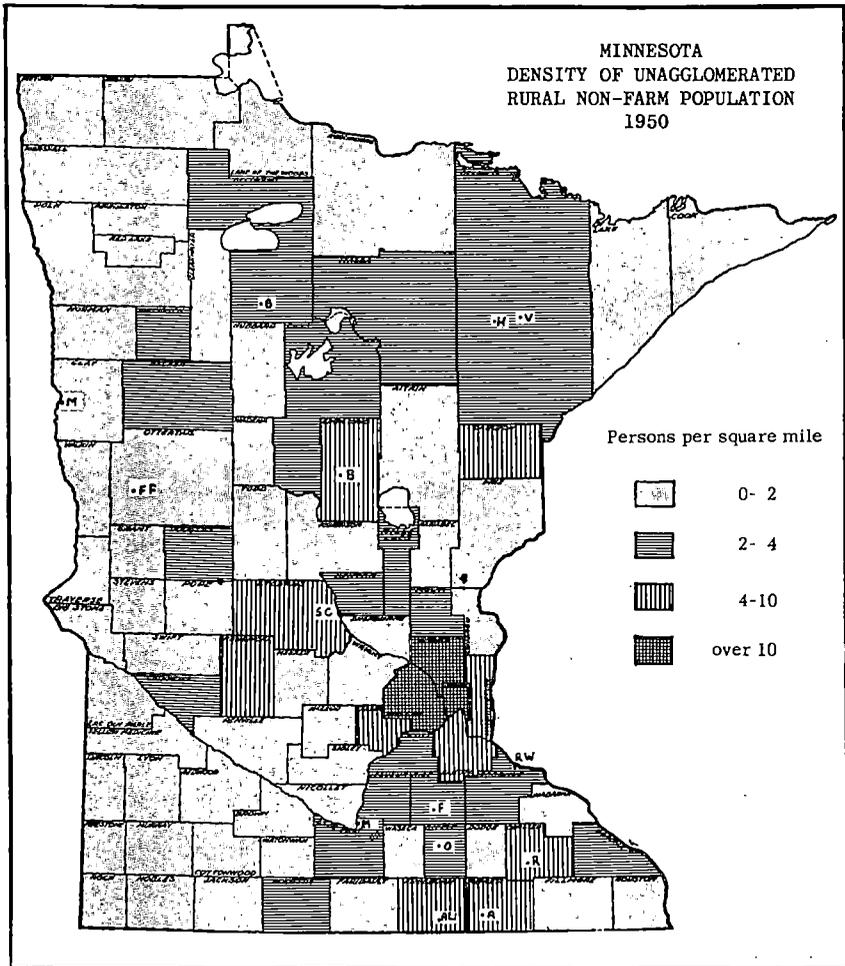


Fig. 5.

farm homes not in any urban place. This is mapped on a density basis by counties in Figure 5. One of the most prominent characteristics of this distribution is the generally low density of unagglomerated rural non-farm population in Minnesota. 55 counties out of the total of 87 have densities of less than two unagglomerated rural nonfarm people per square mile, while only three have more than ten per square mile. The main interest of this map lies in the uneven distribution of this unagglomerated rural nonfarm population. The three counties having high densities are, as expected, those which include the main metropolitan area of the state, the Twin Cities. Of these, Ramsey County has the highest density—113 unagglomerated rural nonfarm people per square mile. Relatively high densities are found also in three counties near the metropolitan centre, namely in Washington, Dakota and Carver Counties.

In all, ten counties have densities of from four to ten unagglomerated rural nonfarm people per square mile. Of these three lie near the major urban center, and five—Olmsted, Mower, Freeborn, Crow Wing and Stearns each contain cities of more than 10,000. Two other counties, Carlton and Kandiyohi, fall in this group of relatively high unagglomerated rural nonfarm density and yet lack an urban center of over 10,000. In each of these counties the total population of the largest urban centre (Cloquet and Willmar respectively) and the township in which it is located exceeds 10,000. In general, if the density of unagglomerated rural nonfarm population is considered to bear a relationship to the presence of urban centers of a certain size, then the fact that these two counties in Minnesota have a high density but lack an urban center of greater than 10,000 people is more a reflection of the arbitrary choice of division points in handling the statistics than a refutation of the hypothesis.

There are eighteen counties which have an unagglomerated rural nonfarm density of between two and four persons per square mile. Of these, one (Scott) lies near the Twin City metropolitan area, seven contain cities larger than 10,000 people, and one (Benton) contains part of a city of more than 10,000. Of the remaining nine counties in this group, five contain cities of between 5,000 and 10,000 and each of these centers has a correspondingly large township population around it, indicating again that much of the unagglomer-

ated rural nonfarm population is associated with urban life even though it lives outside the true "urban fringe". The remaining four counties in this group, Mahnomen, Mille Lacs, Isanti and Lesueur, which lack any sizeable urban centers, probably owe part of their density figure to their fairly large Indian populations.

It is now evident that there is a correlation between unagglomerated rural nonfarm population density and the presence of urban centers of different size categories in Minnesota. However, three counties exhibit what may be called a negative anomaly in this respect. St. Louis County has a density figure of only between two and four unagglomerated rural nonfarm people per square mile, yet in this county lies the major urban area of Duluth as well as Hibbing and Virginia—two cities of over 10,000 each—together with a string of smaller cities, villages and mining "locations" on the Mesabi and Vermillion iron ranges. If unagglomerated rural nonfarm population is to be accounted for as being to a large extent made up of people with urban associations living as a sort of second and outer straggling urban fringe near urban places, it may be expected that it would be very large in a county which is 75 percent urban as is St. Louis County. In absolute figures, the unagglomerated rural nonfarm population of 21,000 in St. Louis County is the second highest in the state, (Hennepin County, the highest, has 34,000), but the extremely large size of St. Louis County reduces this to a fairly low density figure.

The other two counties showing negative anomalies are Ottertail and Clay. Each contains a city of over 10,000, (Fergus Falls and Moorhead respectively) yet each has an unagglomerated rural nonfarm density of less than two per square mile. It appears that to explain these low densities consideration must be made of two other factors, namely the areal extent of the incorporated areas, (and this brings in related factors such as intensity of urbanization), and the residential desirability of land in the environs of incorporated areas together with its relative value for nonurban use. In the case of Moorhead and Fergus Falls, both cities have relatively large incorporated areas for their population size, and the townships in which they are located have small residual populations. In other words, there is a very small unagglomerated rural nonfarm population associated with

these two cities, which are the only urban centers of size in their respective counties.

Attempts to find a quantitative mathematical expression for the relation between unagglomerated rural nonfarm population and degree of urbanization have not yet been successful. It is clear, however, that such a relationship exists, and although it is not a simple linear one, it seems likely that the other factors which must be introduced are related to the urban quality. Such nonagricultural activities as mining and the resort business do not appear to aid greatly in explaining the distribution of rural nonfarm population in Minnesota, except in so far as they contribute to the presence of urban centers, particularly in the northern half of the state.

To generalize, the total rural nonfarm population of Minnesota may be analyzed by splitting it into several subcategories (Figure 6). Two-thirds of it is agglomerated, and the large villages, small villages and hamlets in which this two-thirds live occur mostly along the railroads and highways of the south and west of the state. The

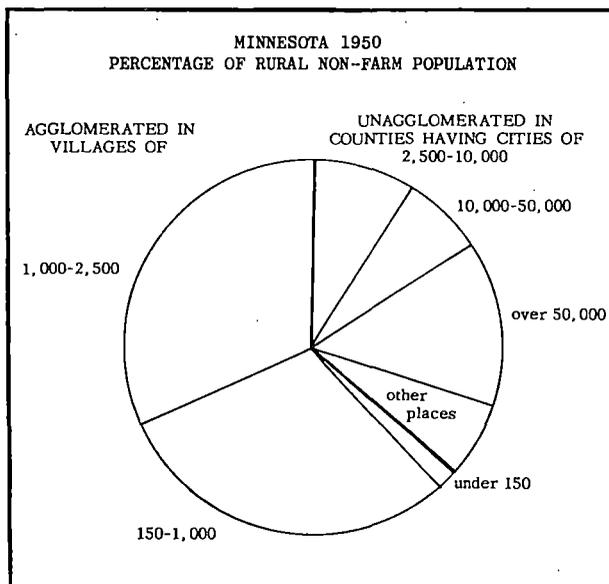


Fig. 6.

remaining third (36.6 percent,) is unagglomerated, but its distribution follows a marked pattern related to the pattern of urban agglomeration in the state. Thus 8.7 percent of the total rural nonfarm population lives in counties having cities of from 2,500 to 10,000 people; 7 percent in counties having cities of from 10,000 to 50,000, and 14.3 percent in counties having cities of over 50,000. Only 6.6 percent of the whole rural nonfarm population of Minnesota is found to live in places that are not to some degree urban, that is, not in villages or hamlets and in counties which do not have centers larger than 2,500.

In conclusion, it seems that when the category "rural nonfarm" was introduced into the population census in 1930, a major step was taken towards dispelling the illusion that all nonurban population is directly associated with agricultural activities. However, it appears now that "rural nonfarm" is not the best term to describe this section of the population, and that a term such as "semiurban" which emphasizes the evident urban orientation of this group would be more accurate.

LITERATURE CITED

- HART, J. F. 1955. The rural non-farm population of Indiana. *Indiana Academy of Science*, Vol. 65.
- TREWARTHA, G. T. 1943. The unincorporated hamlet: one element of the American settlement fabric. *Ann. Assoc. Amer. Geogrs.*, 33: 32-81.
- U. S. BUREAU OF THE CENSUS, 1951. *U. S. Census of Population and Housing: 1950*. Vol. I, *Number of Inhabitants*, Chapter 23: *Minnesota*. Washington, D. C.
- U. S. BUREAU OF THE CENSUS. 1952. *U. S. Census of Population: 1950*. Vol. II. *Characteristics of the Population*, Part 23, *Minnesota*, Chapter B. Washington, D. C.