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TRENDS AND CHARACTERISTICS OF FARM POPULATION IN\*  
LOW-INCOME FARMING AREAS

By Louis J. Ducoff

My assignment on this program is to discuss the population trends and composition of the low-income farm-operator families and to point up some of the demographic and other relevant characteristics of this population group. In describing the composition and characteristics of the low-income farm population it will be helpful to make certain comparisons with the higher income population group in agriculture. To a large extent what I have to say is introductory and descriptive. My colleagues on the program have the clinical job of analysis and problem diagnosis.

Low-Income Farming Areas

What is the universe we are dealing with? We could start with a definition and delineation of low-income farm areas in the United States, or, we could start with a definition of "low-income farm family" and talk about the population trends and characteristics of all farm families in the United States who fall within our definition. Since there may not be (and perhaps should not be) any single set of criteria for area delineation or family identification and since we do not wish this paper to take up more than its pro rata of your time, we shall approach the problem from the standpoint of the areas that have been delineated in the report prepared for the Secretary of Agriculture, Development of Agriculture's Human Resources: A Report on Problems of Low Income Farmers. <sup>1/</sup> This map is reproduced here and it shows the areas of most serious, substantial, and moderate concentration of low-income farm-operator families. The map also shows the grouping into nine generalized areas within which the low-income problems are somewhat similar.

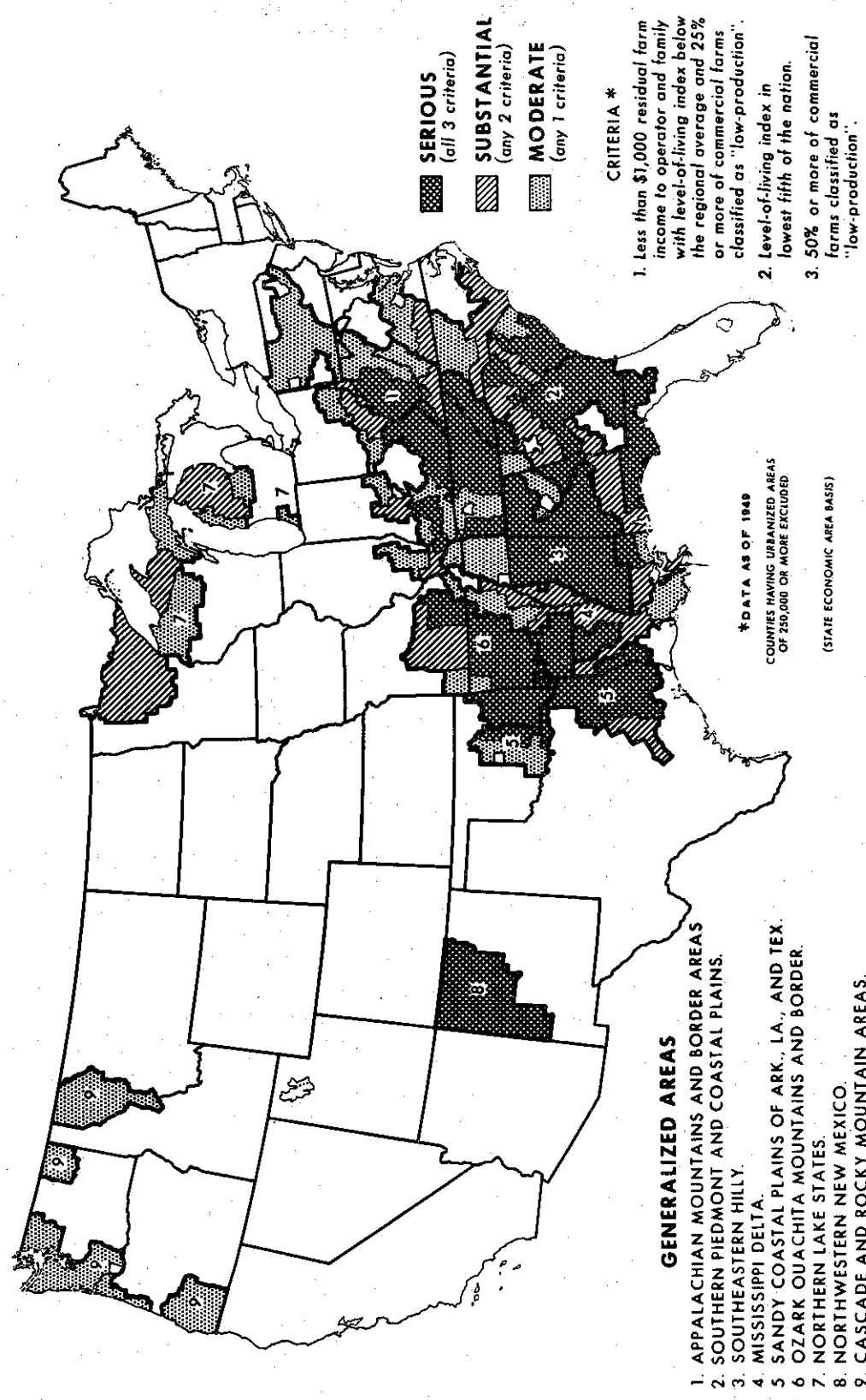
The area approach has the advantage that more information is available on the farm population tabulated by areas than on farm population tabulated by income levels. The disadvantage is that not all farm families living in the areas delineated as low income and low level of living are actually low-income families. Nevertheless, the proportion of low-income farm families is so high that some conclusions can be drawn regarding the more distinctive characteristics of the low-income farm population. Contrasts among subareas differing in degree of concentration of the low-income farm population help to identify further characteristics of the low-income farm families. Supplementary information derived from tabulations of farm families by income levels will also be introduced.

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\* A paper presented at the Annual Meeting of the American Farm Economic Association, East Lansing, Michigan, August 1-3, 1955.

<sup>1/</sup> U. S. Government Printing Office, Washington 25, D. C., April 1955.

# LOW-INCOME AND LEVEL-OF-LIVING AREAS IN AGRICULTURE



PREPARED BY AMS AND ARS

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The low-income areas in the United States, concentrated largely in the South and Southeast, had in 1950 nearly half of the entire rural-farm population - 11 million out of a total of 23 million. More than four-fifths of the farms in these areas had gross sales of less than \$2,500 in 1949 and half of these were operated by full-time farmers under 65 years of age. <sup>2/</sup>

#### Population Trends in Low-Income Farming Areas

The sharp decline in the farm population of the United States which occurred during the 1940-50 decade proceeded at a somewhat faster rate from the low-income farming areas than from the rest of the farm population. The net decline in rural-farm population showed a steady progression from 21 percent in the medium and high-income areas of the United States to 28 percent in the areas of most serious low income (Table 1).

The more rapid decline in farm population of low-income areas was due entirely to higher outmigration rates, since the farm population in the low-income areas have slightly higher fertility ratios than in the medium and high-income areas. The migration rate for the low-income areas was nearly 34 percent of the population in these areas at the beginning of the decade, after allowing for normal mortality experience (Table 2). The migration rate during the same decade for the farm population outside the low-income areas was 28 percent or nearly 1/6 lower. Within the low-income farming areas the migration rate varied from 28 percent for the areas of moderate concentration of low-income farms to 37 percent for the areas of serious concentration. During the 1930-40 decade when generally depressed economic conditions neither stimulated nor afforded much opportunity for outmigration there was little difference in the rate of outmigration as between the farm population in the low income areas and the rest of the United States.

Coupled with the higher outmigration rates from the population in low-income areas has been a somewhat higher population growth potential. Historically, the higher fertility rates in the low-income farm population have exerted a continuing population pressure resulting in a serious imbalance between population and resources. While heavy rates of outmigration since 1940 have mitigated this imbalance, it is being counteracted in part by a more rapid population growth rate in the low-income areas than in the rest of the farm population. During the present decade the number of rural-farm males reaching working age in the low-income farming areas is double the number of males who leave the labor force through death or retirement. It is estimated that between 1950 and 1960, 1,280,000 farm youths in low-income farming areas will reach working age while only 640,000 older farm men will die or retire. The comparable replacement ratio in the rest of the farm population of the United States is 143 males reaching working age for every 100 who leave the labor force through death or retirement. <sup>3/</sup> For the

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<sup>2/</sup> Ibid, p. 9.

<sup>3/</sup> The replacement ratio is the number of farm youths reaching age 20 for every 100 older men who die or retire during the decade. Data are from a report to be issued shortly by the Agricultural Marketing Service.

Table 1. - Rural-farm population, by sex, for farming income areas, United States, 1940 and 1950

Level of income area	1950			1940			Percentage Change 1940 - 1950		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
	000	000	000	000	000	000	Pct	Pct	Pct
United States	23,048	12,079	10,970	30,216	15,940	14,276	-23.7	-24.2	-23.2
Medium and high	12,060	6,407	5,653	15,349	8,238	7,111	-21.4	-22.2	-20.5
Low	10,988	5,671	5,317	14,867	7,702	7,165	-26.1	-26.4	-25.8
Serious	5,087	2,612	2,475	7,066	3,629	3,437	-28.0	-28.0	-28.0
Substantial	2,746	1,413	1,333	3,737	1,935	1,802	-26.5	-27.0	-26.0
Moderate	3,155	1,646	1,509	4,065	2,139	1,926	-22.4	-23.0	-21.7

NOTE: Figures are rounded to the nearest thousand without being adjusted to group totals.

Table 2. - Rates of net migration of the rural-farm population 1930-40 and 1940-50, and replacement ratios of rural-farm males of working age, 1950-60, for farming income areas

Level of income area	Rate of net migration 1/		Replacement ratios, 1950-60 2/	
	1930-40	1940-50	Working age group, 20-64	Working age group, 25-69
United States	-12.7	-30.9	168	135
Medium and high income farming areas	-13.2	-28.0	143	124
Low-income farming areas 3/	-12.5	-33.8	200	148
Serious	-14.2	-36.9	221	159
Substantial	-13.9	-34.9	206	151
Moderate	- 8.3	-27.8	169	132

1/ Change due to net migration expressed as a percentage of farm population alive at both beginning and end of decade.

2/ Ratio of the expected number of entrants into selected working ages during a decade to the expected number of departures from these working ages during the decade through death or reaching retirement age. This ratio is an index of the potential replacement if no net migration from or to an area occurs.

3/ Areas delineated in "Development of Agriculture's Human Resources - A Report on Problems of Low-Income Farmers."

moderate, substantial and serious areas of concentration of low-income farm families, replacement ratios are respectively 169, 206, and 221. Thus, even if we assumed that labor requirements in agriculture during the 1950-60 decade were to remain unchanged (an obviously unrealistic assumption in view of the continuing decline in labor requirements and continuing gains in agricultural production per worker) these replacement ratios for the low-income areas mean that in the absence of outmigration or shifts to nonfarm jobs there would be twice as many men reaching working age as the number of jobs vacated.

These replacement ratios point up the importance of programs for education and training of children and youth in these areas. They indicate that to prevent an accumulation of underemployment or unemployment there must be an increase of employment opportunities within the areas through bringing in industries or heavy outmigration of youth, or both. Also, if we look beyond the present decade to 1960-70, when the babies born during the 1940's will be passing their 20th birthdays, we can expect these ratios to be higher. For the farm population of the U. S. it is anticipated that the replacement ratio for the 20-64 year age group which was 179 in the 1940-50 decade and 168 in the 1950-60 decade may be 185 in the 1960-70 decade.

#### Composition of Farm Population in Low-Income Farming Areas

Comparison of the age and sex composition of the farm population of low-income areas with that in the middle and high-income areas is facilitated by use of population pyramids. Pyramids for the farm population in areas classified by level of income and for the nonfarm population are shown in the chart on the following page. The contrast is striking when the "serious" low-income areas are compared with the middle and high-income areas. Serious low-income areas have higher proportions in each 5-year age group under age 20 for both males and females. From ages 20 to 65 or 70, the serious low-income areas have deficiencies in each 5-year age group, especially marked in the case of males.

The contrasts are even greater if we compare the age-sex composition of the farm population in low-income areas with that of the nonfarm population of the United States. In low-income areas, children and youths under 20 make up 46 percent of the population compared with 32 percent in the nonfarm population. On the other hand, persons 20 to 59 years of age are only 44 percent of the farm population in low-income areas compared with 55 percent of the nonfarm population.

The farm population in the low-income areas has about the same proportion of the aged as in the rest of the farm population. However, the proportion of children and youths under 20 is so much higher and the proportion in the productive adult ages lower, that the economic burden falling on the adults in the productive age groups is greater in the low-income areas than in the medium or high-income farming areas. In 1950, the dependency ratio, defined as the number of persons under 15 and persons 70-years and over per 100 persons 20 to 64, was 85 for the low-income areas and 67 for the rest of the farm population (Table 3). Within the low-income areas it varied from 76 in the moderate to 89 in the area of serious concentration of low-income farm families.

# POPULATION BY AGE AND SEX, 1950

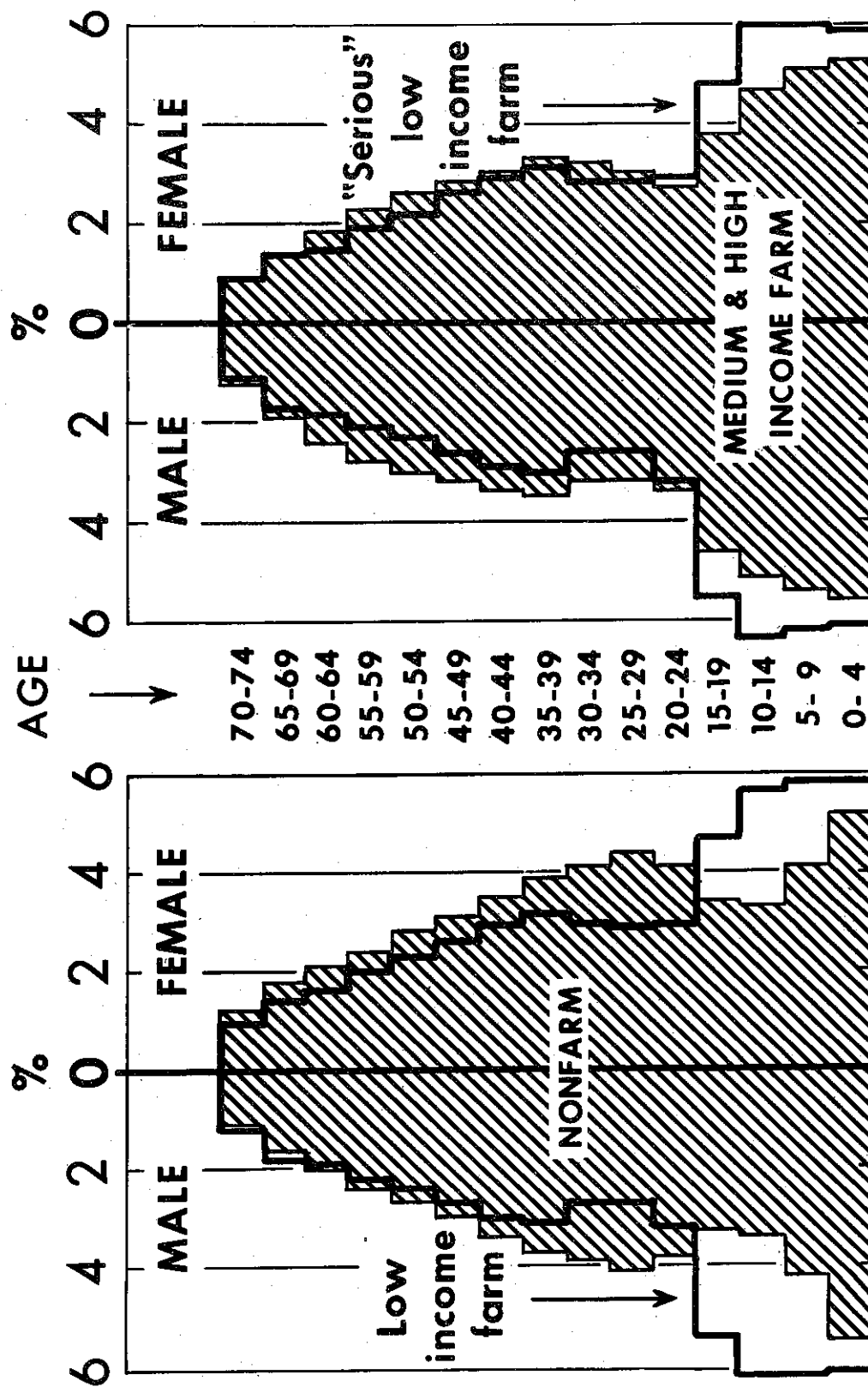


Table 3. - Fertility and dependency ratios for the rural-farm population, for farming income areas, 1950

Level of income area	Fertility ratio 1/			Dependency ratio 2/		
	Total	White	Nonwhite	Total	White	Nonwhite
United States	521	492	695	75	70	110
Medium and high	503	493	673	67	66	97
Low	541	491	701	85	77	113
Serious	552	504	696	89	81	117
Substantial	570	494	719	87	77	112
Moderate	499	472	678	76	72	105

1/ Ratio of children under 5 to 1,000 women aged 15-49 years.

2/ Ratio of children under 15 and persons 70 years of age and over to 100 adults aged 20 to 65 years.

The ratios of children to women of child-bearing age reflect the relative birth rates in recent years for different population groups. In earlier years there were marked differences in fertility ratios for population groups classified by income. The baby boom of the last 15 years narrowed these differentials somewhat, but they still exist to some extent, especially when the "serious" or "substantial" low-income areas are compared with the medium or high areas.

The proportion of the farm population that is nonwhite is four times as high in the low-income areas as in the remainder of the United States farm population, 24.2 percent compared with 5.6 percent. In the Mississippi Delta areas the proportion of nonwhite in the farm population was 50 percent. On the other hand, in some of the subareas the nonwhite population is very small, less than one percent in the Northern Lake Area and less than three percent in the Appalachian Mountain Area and in the Cascade and Rocky Mountain Areas. 4/

Educational attainment is considerably lower for the farm population in the low-income areas. Among adults in 1950, 55 percent had completed less than eight years of schooling, while in the rest of the farm population of the United States only half as large a proportion completed less than eight years. Within the subareas of the low-income area the proportion with so little education varied from 20 percent in the Cascade and Rocky Mountain area to 73 percent in the Mississippi Delta area. 5/

#### Levels of Living of Low-Income Farm Operator Families

The farm-operator family level of living indexes available for all counties and economic areas of the United States were one of the criteria for the delineation of the low-income areas. It is not surprising, therefore, that these

4/ Development of Agriculture's Human Resources, p. 44.

5/ Ibid. p. 9 and 44.

areas show much lower than average indexes of level of living. The combined low-income areas have an average index for 1950 of 84, compared with 122 for the U. S. as a whole, and the serious areas have an average index of 66 (average county in U. S. for 1945 equals 100).

The total annual income available to a family is the most important determinant of the family's level of living. Data from a matching study of the 1950 Censuses show that there were 1,366,000 farm-operator families whose total cash income from all sources, farm and nonfarm, was less than \$1,000 for 1949. 6/ Their average cash income was \$464 per family. Seventy-one percent of these families were in the South. There were an additional 1,206,000 farm-operator families in the \$1,000 to \$2,000 income group and their average income for 1949 was \$1,392. Fifty-four percent of these families were in the South. Families in these income groups averaged four persons. Thirty-five percent of the commercial farm families with less than \$1,000 income operated cotton farms and another 22 percent operated other field crop farms. In the \$1,000 to \$2,000 income group 17 percent operated cotton farms, 24 percent other field crop farms, and 42 percent operated livestock farms. The proportion operating livestock farms in the under \$1,000 income group was 30 percent.

Some additional indications besides income of the level of living of these families are provided by certain information relating to housing and housing facilities of farm-operator families. Nearly 4/5 of the farm families in the under \$1,000 income group had no piped running water inside their dwellings, as compared with 57 percent for all farms in the United States; only 13 percent had flush toilets inside their dwellings as compared to 30 percent for all farms; 85 percent had no installed bath tubs or showers compared with 67 percent for all farms; only 62 percent had electricity compared with 78 percent for all farms; 39 percent had no mechanical or ice refrigeration compared with 22 percent for all farms; only 34 percent had kitchen sinks compared with 58 percent for all farms. The fact that the comparison here is made with all farms rather than with farms at the medium or higher income levels minimizes the contrast.

#### Some Characteristics of the Farms Operated by Low-Income Families

Of the two million farms in the low-income areas in the United States with less than \$2,500 crop sales, 1,400,000 were commercial farms and the remaining 600,000 were the part-time, residential, and abnormal farms. The commercial farms in the low-income areas averaged considerably smaller than in the rest of the United States in acres of all land in the farm -- 138 acres as compared with 359; crop land harvested, 41 acres compared with 118 acres for the rest of the United States; sharecroppers, 16 percent of all the commercial farms in the low-income areas as compared with less than three percent of the commercial farms in the rest of the United States; all types of tenants, including sharecroppers, nearly 37 percent of the commercial farms in the low-income areas compared with 27 percent in the rest of the United States.

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6/ Most of the data cited in this section are from Farms and Farm People, U. S. Department of Agriculture and U. S. Department of Commerce, June 1953.



Resume of Human Resources in Low-Income Farming Areas

This paper has concentrated on presenting a brief picture of the human resources in the farm population of low-income farming areas. How can we best summarize the main facts? The first is that despite the geographic concentration of the low-income farming areas in the South, they account for nearly one-half of the farm population of the United States and low-income families predominate in these areas. These areas contribute heavily to the manpower needs of our expanding economy. It is estimated that between 1940 and 1954, roughly half of the expansion in the nonagricultural labor force was supplied by outmigration from the farm population and over half of this was from the low-income farming areas.

The most distinctive characteristic of the farm population in these areas is the high proportion of children and youths and the low proportion of adults in the productive ages. Nearly half (46 percent) of the farm population in the low-income areas are under 20 years of age. This emphasizes the importance of focusing programs on greater investment in the children and youth of these areas. Better and more extensive educational programs, including vocational training and guidance facilities, should have the first priority in action programs. Vocational training programs should be realistically geared to opportunities for productive employment.

The proportion of the older age groups in low-income areas is not very different from that in the rest of the population or in the nonfarm population. But in the low-income areas, individual and community resources are less adequate to provide for the income needs of many of the older persons. The recent extension of Old Age and Survivors Insurance to farm operators along with the rather liberal provisions for speedy qualification of those near retirement age constitutes a very important step forward in meeting these needs for many families in the very near future. The further action program needed is largely one of information and extension services to assist those farmers at or near the borderline of qualification to adjust their enterprises so that they can gain Social Security coverage.

