

DOCUMENT RESUME

ED 164 198

RC 011 022

AUTHOR Banks, Vera J.
 TITLE Farm Population Trends and Farm Characteristics.
 Rural Development Research Report No. 3.
 INSTITUTION Economic Research Service (DOA), Washington, D.C.
 Economic Development Div.
 PUB DATE Dec 78
 NOTE 55p.
 EDRS PRICE MF-\$0.83 HC-\$3.50 Plus Postage.
 DESCRIPTORS Blacks; Caucasians; Demography; *Farmers; Food;
 *Geographic Regions; *Income; Part Time Farmers;
 *Population Trends; Rural Areas; *Rural Farm
 Residents
 IDENTIFIERS *Farms; *Group Characteristics; Tenants

ABSTRACT

While total farm population is declining, the number of people living on the farms which produce the bulk of the nation's food and fiber is increasing. The 1970-75 total farm population decline was 13 percent, but the number of people living on farms with annual sales greater than \$40,000 increased 76 percent. Such farms account for about 80 percent of total U.S. farm receipts, but only 24 percent of the U.S. farm population. Some of the indicated increase in population on large farms is unquestionably due to general price inflation and its effect on dollar value of farm product sales, but at least part of the change reflects real increase. The number of people living on farms with under \$2,500 in annual sales dropped from 3.6 million in 1970 to 2.8 million in 1975. Farms of this sales size contain one-third of the U.S. farm population, and residents earn most of their money income from off-farm sources. The total 1970-75 farm population decline occurred among farm residents without regard to race, operator status, or region of residence. Losses were heavier in the nonoperator population than the operator population, the population of Blacks declined faster than Whites, and the population living on southern farms dropped at a greater rate than the number of farm people in the northern and western states. In 1975, about 60 percent of the total farm population resided on farms operated by a full owner, about 30 percent were on part owner operator farms, and the remaining 10 percent were on tenant or managed farms. (BR)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

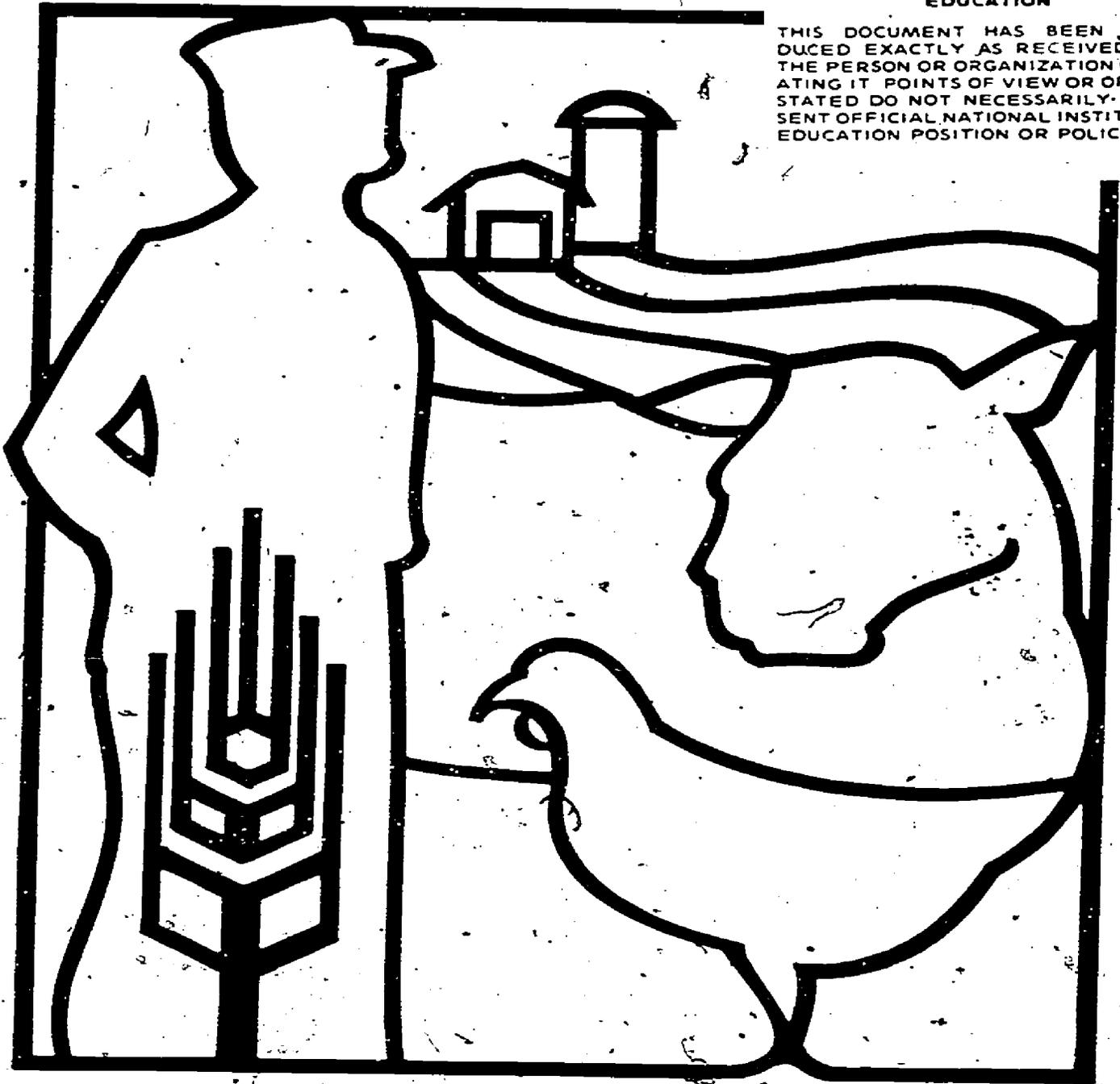
ED164198

Farm Population Trends and Farm Characteristics

Vera J. Banks

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.



RC 011022

United States
Department of
Agriculture

Economics,
Statistics,
and Cooperatives
Service

Rural Development
Research Report
No. 3

FARM POPULATION TRENDS AND FARM CHARACTERISTICS. Vera J. Banks, Economic Development Division, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture. Rural Development Research Report No. 3.

ABSTRACT

Although the total U.S. farm population declined between 1970 and 1975, the population on farms with annual sales greater than \$40,000 increased. Such farms account for nearly 80 percent of total farm receipts. Farms with under \$2,500 in annual sales contain a third of the U.S. farm population which receives most of its money income from off-farm sources. The nonoperator population declined faster than the farm operator group between 1970 and 1975. The U.S. farm population is concentrated on cash-grain and livestock farms; in 1975, they contained two-thirds of the farm total.

Keywords: Farm population, Race, Tenure status, Economic class, Type of farm, Population distribution, Population growth.

ACKNOWLEDGMENTS

The author appreciates the invaluable assistance, critical review, and comments of Calvin Beale and Judith Kalbacher. The study also benefited from the constructive review of George Coffman. Credit is due Helen Curtis, Anna Lane, Deborah Tillman, and Suprina Wilson for assistance in preparing the report.

United States Department of Agriculture
Washington, D.C. 20250

December 1978

CONTENTS

Highlights	ii
Introduction	1
Operator and Nonoperator Farm Populations	3
Farm Population by Tenure Status of Farm Operator	5
Farm Population by Value of Farm Products Sold	11
Economic Class 1	15
Economic Classes 2 and 3	25
Economic Classes 4 and 5	27
Economic Class 6	28
Farm Population by Type of Farm	30
Cash-Grain Farms	31
Tobacco, Cotton, and Other Field-Crop Farms	34
Livestock Farms	39
Dairy Farms	40
Vegetable, and Fruit and Nut Farms	41
Poultry and Miscellaneous Farms	42
Implications	43
Literature Cited	45
Definitions and Explanations	47
Source and Reliability of the Estimates	49

HIGHLIGHTS

While total farm population is declining, the number of people living on the farms which produce the bulk of the Nation's food and fiber is increasing. The 1970-75 total-farm population decline was 13 percent. But, the number of people living on farms with annual sales greater than \$40,000 increased 76 percent. Such farms account for about 80 percent of total U.S. farm receipts, but only 24 percent of the U.S. farm population. Some of the indicated increase in population on large farms is unquestionably due to general price inflation and its effect on dollar value of farm product sales, but at least part of the change reflects real increase.

The number of people living on farms with under \$2,500 in annual sales dropped from 3.6 million in 1970 to 2.8 million in 1975. Farms of this sales size contain one-third of the U.S. farm population, and residents earn most of their money income from off-farm sources.

The total 1970-75 farm population decline occurred among farm residents without regard to race, operator status, or region of residence. Losses were heavier in the nonoperator population than the operator population, the population of Blacks declined faster than Whites, and the population living on southern farms dropped at a greater rate than the number of farm people in the northern and western States.

About 90 percent of all farm people lived in the same household as the farm operator; the remaining 10 percent lived in other dwelling units on farms. In 1975, such nonoperator households contained 32 percent of all Black farm residents, many of them hired farmworkers, compared to only 7 percent of the White farm population.

In 1975, about 60 percent of the total farm population resided on farms operated by a full owner, about 30 percent were on part owner operated farms, and the remaining 10 percent were on tenant or managed farms. In the 5-year study period, all three tenure groups lost population.

In 1975, two-thirds of the total U.S. farm population lived on livestock and cash-grain farms. Livestock farms, with 39 percent of all farm people, had the largest share although their proportion declined from 43 percent in 1973 as a result of population loss. The number of persons residing on cash-grain farms rose by a third between 1973 and 1975, increasing their share of the total farm population to 27 percent from 20 percent in 1973.

FARM POPULATION TRENDS AND FARM CHARACTERISTICS

By
Vera J. Banks
Demographer

INTRODUCTION

Data are published annually on the number, distribution, and personal characteristics of the U.S. farm population (13, 15), but information has been available much less frequently on trends in the farm population by characteristics of farms.¹ Such statistics are presented in this report for 1975 and 1970 farm populations by race, for tenure status of operator and value of farm products sold, and for 1975 and 1973 by type of farm. The populations living in farm operator households and in other dwelling units on farms are separately identified. Statistics are presented for the United States, the South, and the combined North and West.

The data were obtained from the 1975, 1973, and 1970 June Enumerative Surveys (JES), a national sample survey conducted annually by the U.S. Department of Agriculture. The JES is designed to produce statistics on crop acres and land use, livestock and inventory numbers, farm labor, farm population, farm numbers, and related economic factors (19).²

This report follows an earlier report covering 1966 to 1970 (3). With the exception of type of farm, the farm characteristics examined are the same as in the earlier release.

Variations in rate of farm population change by characteristics of the farm are examined and, whenever possible, speculations are offered for observed differences. Some of the research and policy relevant questions addressed in this analysis are: What proportion of farm people live on a farm where there is an ownership interest? How many people live on tenant farms? How many people live on farms as hired farmworkers or through other arrangements that do not involve cash rent? What proportion of farm people are on farms of adequate commercial scale from which a reasonable income may be derived? Conversely, how

¹Italic numbers in parentheses refer to items listed in Literature Cited.

²See section of this report titled "Source and Reliability of the Estimates."

many are on marginally adequate scale farms which without supplementary off-farm income would portend economic difficulty? How many and what proportion of farm people are on the different types of farms? Are there differences in farm population trends by farm characteristics and region of residence? What is the trend in number, tenure, type, and scale of farming for the Black farm population? How does this compare with the White farm population? These and similar questions cannot be answered by data from the censuses of population and agriculture. However, JES statistics permit us some insights and answers.

OPERATOR AND NONOPERATOR FARM POPULATIONS

In June 1975, there were 8,728,000 persons living on farms in the conterminous United States.³ This represents a decline of 1.3 million, or about 13 percent, since June 1970 when there were about 10 million farm residents (table 1). The number of persons living on farms declined without regard to region of residence, however, the rate of loss was somewhat heavier in the South. Between 1970 and 1975, the southern farm population dropped by 18 percent, compared to a decline of 10 percent in the rest of the Nation. The more rapid population loss in the South is associated with the sharp drop in the Black farm population, more than 95 percent of which is in the South. During the 5-year study period, the number of Blacks on farms decreased by 40 percent; the White rate of loss was 11 percent.

The JES distinguishes between the population living in the farm operator's household and the population living in other dwelling units on farms. In this report, the population residing in the farm operator's household will be referred to as "operator population" and those persons located in a farm household that did not contain a farm operator or pay cash rent for the house will be termed "nonoperator population." Nonoperator households are most often those of hired farm laborers and their families, but many also consist of other persons who for various reasons

³Farm population estimates in this report exclude Alaska and Hawaii and relate to June only. The data are derived from a different sample survey than those used in the annual Census-USDA farm population reports. Therefore, the numbers relating to national, regional, and racial totals in this report differ slightly from published April-centered annual averages for 1975, 1973, and 1970 (1, 2, 4, 5, 14, 17).

Table 1—Farm population in operator and nonoperator households, by race and region, June 1975 and 1970

Operator status, race, and region	Population		Percentage change 1970-75	Percentage distribution	
	1975	1970		1975	1970
	-- Thou. --		----- Pct. -----		
All races	8,728	10,017	-12.9	100.0	100.0
Operator population	8,023	9,145	-12.3	91.9	91.3
Nonoperator population	705	873	-19.2	8.1	8.7
White	8,264	9,307	-11.2	100.0	100.0
Operator population	7,711	8,685	-11.2	93.3	93.3
Nonoperator population	554	622	-10.9	6.7	6.7
Black	401	663	-39.5	100.0	100.0
Operator population	274	428	-36.0	68.3	64.5
Nonoperator population	127	236	-46.2	31.7	35.5
North and West ¹	5,359	5,932	-9.7	100.0	100.0
Operator population	5,015	5,590	-10.3	93.6	94.2
Nonoperator population	344	342	7.6	6.4	5.8
South	3,369	4,086	-17.5	100.0	100.0
Operator population	3,008	3,555	-15.4	89.3	87.0
Nonoperator population	361	531	-32.0	10.7	13.0
White	2,951	3,415	-13.6	100.0	100.0
Operator population	2,728	3,120	-12.6	92.4	91.4
Nonoperator population	223	295	-24.4	7.6	8.6
Black	389	649	-40.1	100.0	100.0
Operator population	267	422	-36.7	68.8	65.0
Nonoperator population	121	227	-46.7	31.2	35.0

¹ Racial data not shown; area contained only 12,000 Black farm residents in 1975.

are permitted to live in a farm home rent free. These two populations will be examined separately to determine if there are different trends in number and distribution by tenure of the operator and economic class and type of farm.

Nine of every ten farm residents lived in the household of the farm operator in 1975. The proportion of the total farm population classed as operator population has remained essentially unchanged since these data were first published. There are, however, both regional and racial differences.

The operator population declined by 12 percent between 1970 and 1975, while the nonoperator population fell by 19 percent (table 1). This difference in the rate of decline was due almost entirely to the especially sharp drop in the Black nonoperator farm population (table 1). There was no significant difference in rates of loss by operator status among White farm residents. In the earlier 1966-70 study, heavier rates of loss occurred in the nonoperator population for both racial groups. The reason is not readily apparent for the slackening in the rate of decline in the number of Whites in other dwelling units on farms.

Higher rates of nonoperator population loss continued in the South throughout both study periods for both racial groups. Only the northern and western States experienced a lessening in the rate of decline in the number of persons residing in nonoperator households. Between 1970 and 1975, this population remained practically stable compared to a loss of 10 percent in the 1966-70 period. One possible explanation for some of this slowdown may be the significant number of large farming operations found outside the South (10, 12). In 1974, 71 percent of all farms with 2,000 acres or more were in the combined North and West. These larger farms hire substantial numbers of year-round laborers and provide housing for them. These hired farm workers and their families are the principal occupants of nonoperator households.

The South has consistently shown a somewhat higher proportion of its population living in nonoperator households, reflecting the influence of plantation agriculture with its resident hired workers. However, this regional disparity occurred among Black farm residents only. In 1975, almost a third of all Blacks on southern farms lived in dwelling units that did not contain a farm operator. When the White farm population in the southern States is examined separately, we find that they are no more likely to be in nonoperator households than are their northern and western counterparts.

FARM POPULATION BY TENURE STATUS OF FARM OPERATOR

Farm tenure relates to the respective rights of individuals in the use of land and other resources required in agricultural production. Tenure classifications used in the censuses of agriculture and this study are restricted to the farm operator and his rights in the land operated. The tenure arrangements under which farmland is operated may affect the way the land is used, and the quantities of capital and labor used in conjunction with the land. Thus, tenure arrangements affect total agricultural production and the farm income and status of farm families.

The three major land tenure forms are (1) full owners—those who own all the land they operate, (2) part owners—those who own a part and rent a part, and (3) tenants—those who rent all the land they operate. A fourth tenure group—hired managers—has always been small and since 1964 has not been separately identified in the census of agriculture. In this study, tenants and managers are combined. The nonoperator population was classified in this report by the tenure status of the operator on whose farm they lived.

In 1975, the bulk of the farm population resided on farms operated by a full owner (table 2). The 1975 proportions among the three tenure groups have not changed significantly since 1970, although there have been some slight variations. However, in 1966, when the data were first collected, the proportion of the farm population residing on tenant farms was somewhat higher.

Between 1970 and 1975, population loss was experienced in all of the three tenure groups (table 2). The lower rate of population loss in the part owner group compared to the full owner and tenant categories reflects the increasing importance of farms operated by a part owner. According to the census of agriculture, in the last 25 or so years, these farms have become the most significant of the three tenure groups. They consist of both owned and rented land, and thus typically include more than one tract of land. In 1974, more than half of all the land in farms was operated by part owners and the proportion has been increasing in each census since data first became available. Good farmland resources are limited and as the purchase of land requires ever increasing amounts of capital, leasing or renting of additional land has become the optimal means for most operators to enlarge their operations. The majority of all farm operators are full

Table 2—Farm population by tenure of operator, race, and region, June 1975 and 1970

Tenure of operator, race, and region	Population		Percentage change 1970-75	Percentage distribution	
	1975	1970		1975	1970
	— Thou. — —		— Pct. — — — —		
All races	8,728	10,017	-12.9	100.0	100.0
Full owners	5,091	5,991	-15.0	58.3	59.8
Part owners	2,744	2,971	-7.6	31.4	29.7
Tenants and managers	893	1,056	-15.4	10.2	10.5
White	8,264	9,300	-11.2	100.0	100.0
Full owners	4,869	5,638	-13.6	58.9	60.6
Part owners	2,596	2,769	-6.2	31.4	29.8
Tenants and managers	800	900	-11.1	9.7	9.7
Black	401	663	-39.5	100.0	100.0
Full owners	190	325	-41.5	47.4	49.0
Part owners	128	193	-33.7	32.0	29.1
Tenants and managers	82	145	-43.4	20.5	21.9
North and West ¹	5,359	5,932	-9.7	100.0	100.0
Full owners	2,982	3,421	-12.8	55.6	57.7
Part owners	1,837	1,905	-3.6	34.3	32.1
Tenants and managers	541	606	-10.7	10.1	10.2
South	3,369	4,086	-17.5	100.0	100.0
Full owners	2,110	2,570	-17.9	62.6	62.9
Part owners	907	1,066	-14.9	26.9	26.1
Tenants and managers	352	450	-21.8	10.5	11.0
White	2,951	3,415	-13.6	100.0	100.0
Full owners	1,912	2,239	-14.6	64.8	65.5
Part owners	773	876	-11.8	26.2	25.7
Tenants and managers	267	300	-11.0	9.0	8.8
Black	389	649	-40.1	100.0	100.0
Full owners	183	319	-42.6	47.2	49.1
Part owners	124	188	-34.0	31.8	29.0
Tenants and managers	82	142	-42.3	21.0	21.8

¹ See Table 1.

owners. However, operators of the larger farms (economic classes 1 and 2) are more likely to be part owners. It should be noted that rates of population change also reflect the shifting of operators from one tenure class to another, although the exact proportions are unknown. Operators previously classed as full owners become part owners as they acquire additional rented land. Also, tenants frequently acquire some land as a home base.

From 1970 to 1975, rates of population decrease were heavier among Blacks than among Whites for all tenure status groups. But here too, the loss was relatively smaller for residents on part owner farms. There were only slight variations in population distributions of racial groups in terms of tenure status between 1970 and 1975. Almost a third of both White and Black farm residents lived on part owner farms. However, Black farm residents who are not on part owner farms are more likely to be on tenant farms. About a fifth of the Black farm population was on tenant farms compared to about a tenth for Whites (table 2). The agricultural censuses have consistently shown that Blacks operate a significantly higher proportion of tenant farms than Whites. This racial disparity has not altered much since 1970 despite significantly heavier rates of population loss among Blacks (table 2).

"Minority farm operators may be precluded from ownership opportunities due to impersonal economic forces such as price competition for farmland, limited collateral, and lack of credit," James Lewis noted in a 1976 study of small farm operators in the South (7). "These are problems normally associated with low income. The concentration of minorities in the lower economic classes as farm operators is closely related to patterns of tenure, operator characteristics, and type of farm."

When the operator and nonoperator populations are examined separately by tenure status and race, different patterns of distribution emerge (tables 3 and 4). Between 1970 and 1975, the White operator population did not change significantly in tenure distribution (table 3). On the other hand, among Blacks, a loss of more than 50 percent in the population living in the operator's household on tenant farms resulted in a significant decline in their share of the Black total. Although the Black rate of population loss was considerably heavier than among Whites in all categories, there was a slight increase in the proportion of Blacks living in the operator's household on both full and part owner farms.

Table 3—Population in farm operator households, by tenure of operator, race, and region, June 1975 and 1970

Tenure of operator, race, and region	Population		Percentage change 1970-75	Percentage distribution	
	1975	1970		1975	1970
	--- Thou. ---		--- Pct. ---		
All races	8,023	9,145	-12.3	100.0	100.0
Full owners	4,817	5,575	-13.6	60.0	61.0
Part owners	2,436	2,612	-6.7	30.4	28.6
Tenants and managers	770	958	-19.6	9.6	10.5
White	7,711	8,685	-11.2	100.0	100.0
Full owners	4,642	5,332	-12.9	60.2	61.4
Part owners	2,359	2,514	-6.2	30.6	29.0
Tenants and managers	709	838	-15.4	9.2	9.6
Black	274	428	-36.0	100.0	100.0
Full owners	151	226	-33.2	55.1	52.7
Part owners	70	90	-22.2	25.7	21.1
Tenants and managers	52	112	-53.6	19.2	26.1
North and West ¹	5,015	5,590	-10.3	100.0	100.0
Full owners	2,849	3,262	-12.7	56.8	58.4
Part owners	1,671	1,751	-4.6	33.3	31.3
Tenants and managers	495	577	-14.2	9.9	10.3
South	3,008	3,555	-15.4	100.0	100.0
Full owners	1,968	2,313	-14.9	65.4	65.1
Part owners	765	861	-11.1	25.4	24.2
Tenants and managers	275	381	-27.8	9.1	10.7
White	2,728	3,120	-12.6	100.0	100.0
Full owners	1,814	2,086	-13.0	66.5	66.9
Part owners	694	771	-10.0	25.4	24.7
Tenants and managers	221	264	-16.3	8.1	8.4
Black	267	422	-36.7	100.0	100.0
Full owners	146	222	-34.2	54.6	52.6
Part owners	69	89	-22.5	25.8	21.1
Tenants and managers	52	111	-53.2	19.5	26.3

¹ See Table 1.

Table 4—Farm population in nonoperator households by tenure of operator, race of household head, and region, June 1975 and 1970

Race of household head, tenure of operator, and region	Population		Percentage change	Percentage distribution	
	1975	1970	1970-75	1975	1970
	-- Thou. --			-- Pct. --	
All races	705	873	-19.2	100.0	100.0
Full owners	275	416	-33.9	38.9	47.6
Part owners	308	359	-14.2	43.6	41.1
Tenants and managers	123	98	25.5	17.5	11.2
White	554	622	-10.9	100.0	100.0
Full owners	227	306	-25.8	40.9	49.1
Part owners	236	254	-7.1	42.7	40.9
Tenants and managers	91	62	46.8	16.4	10.0
Black	127	236	-46.2	100.0	100.0
Full owners	39	99	-60.6	30.9	42.1
Part owners	58	103	-43.7	45.6	43.6
Tenants and managers	30	34	-11.8	23.5	14.3
North and West ¹	344	342	.6	100.0	100.0
Full owners	133	159	-16.4	38.6	46.4
Part owners	165	154	7.1	48.0	45.1
Tenants and managers	46	29	58.6	13.3	8.5
South	361	531	-32.0	100.0	100.0
Full owners	142	257	-44.7	39.2	48.4
Part owners	142	205	-30.7	39.4	38.6
Tenants and managers	77	69	11.6	21.4	13.0
White	223	295	-24.4	100.0	100.0
Full owners	98	153	-35.9	43.9	52.0
Part owners	79	105	-24.8	35.5	35.7
Tenants and managers	46	36	27.8	20.6	12.3
Black	121	227	-46.7	100.0	100.0
Full owners	37	97	-61.9	30.7	42.6
Part owners	55	99	-44.4	45.0	43.8
Tenants and managers	29	31	-6.5	24.3	13.5

¹ See Table 1.

Among persons living in other dwelling units on farms, Blacks and Whites exhibited similar patterns of change in distribution by tenure status (table 4). From 1970 to 1975, there was some small but not significant increase in the proportion living on part owner operated farms, an indication of a decline in the proportion on full owner operated farms and an increase in the proportion on tenant farms. The indicated increase in nonoperator population on tenant farms is further supported by data on farm residents employed in agriculture by class of work.

The Current Population Survey of the Bureau of the Census estimates the number of persons living on farms and working in agriculture as wage and salary employees was 395,000 in 1970 and 443,000 in 1975 (4). Although this apparent increase was not statistically significant, it does indicate some stability in this population group. During this same period, farm people employed in the remaining two classes of work—self-employed and unpaid family—showed a decline in number. Persons living on farms and employed as hired farm laborers are most often quartered in other dwelling units on farms and thus classed in the nonoperator population.

In 1975, each of the two major geographic regions for which data are available—the South and the combined North and West—had about a tenth of their farm residents on tenant farms. This is in sharp contrast to the regional differences existing about a generation ago. In the mid-1930s, 54 percent of all southern farms were classed as tenant farms, compared with 30 percent in the North and West (10). The latest census of agriculture reveals that this wide regional disparity no longer exists (12).

Although the majority of farm people live on full owner operations regardless of region of residence, this likelihood is somewhat greater in the South than in the rest of the country. In 1975, about a third of all farm residents outside the South lived on part owner farms; in the South, this proportion was about a fourth. This heavier representation of population on part owner farms in the North and West is consistent with the distribution of farms by tenure groups.

The northern and western States were able to maintain a relatively stable farm population on part owner farms during 1970-75. The 1975 estimate of population living on these farms was only 68,000 less than in 1970, an indicated decrease that was not statistically significant. By contrast, although the rate of loss among persons on southern part owner farms was somewhat

lower than the other tenure groups, this population declined by 15 percent for 1970-75.

For all tenure groups, the 1970-75 rate of population loss was heavier in the South than in the combined North and West (table 2). This primarily reflects the sharp declines in the number of southern Black farm residents in all tenure groups. Among White farm residents, regional differences in rates of population loss were significant only for those living on part owner farms. For this tenure group, the number of Whites on northern and western farms decreased only 4 percent compared to a 12-percent loss among southern Whites.

The consistency in relative distribution among the tenure groups for 1970-75 holds true only for the population living in the farm operator's household (table 3). Among persons living in other dwelling units on farms, an offsetting trend of a decreasing share for full owners and an increasing share for tenant farms was indicated (table 4). The nonoperator population on part owner farms showed no significant change in their proportionate share of the farm total.

FARM POPULATION BY VALUE OF FARM PRODUCTS SOLD

What is the distribution of the farm population in terms of the economic scale of farm on which farm people live? The JES yields data on farm population trends and distribution related to the total value of products sold from the farm in the preceding year.⁴ In the 1969 and earlier censuses of agriculture, farms were grouped into economic classes 1 through 5 solely on the value of farm products sold.⁵ In the case of class 6, additional criteria on age of farm operator and days of off-farm work were also considered. Since JES data are restricted solely to value of sales without corresponding information on age of operator and non-farm income, it was not possible in this analysis to subdivide

⁴Sales value is based on total gross income received from the sale of crops, livestock, poultry, livestock and poultry products, horticultural commodities, and miscellaneous agricultural products.

⁵The term economic class was discontinued in the 1974 Census of Agriculture. However, for farms with sales of \$2,500 or more, the value of products sold classifications are the same as the value ranges used for establishing economic classes 1 through 5 in prior censuses and the data are therefore comparable.

class 6 farms into part-time and part-retirement as they would have been under former census procedures.⁶

The six economic classes used in this report on the basis of total value of all farm products sold are as follows: 1, \$40,000 or more; 2, \$20,000 to \$39,999; 3, \$10,000 to \$19,999; 4, \$5,000 to \$9,999; 5, \$2,500 to \$4,999; 6, \$50 to \$2,499.

In this section, caution should be exercised in interpreting population shifts among the economic sales classes. Shifts in farm numbers from lower to higher sales class—and the accompanying shifts in population residing on such farms—result from: (1) change due to price inflation and (2) change due to increased agricultural production. Historically, the index of prices received by farmers has remained relatively stable, increasing less than 1 percent annually between 1954 and 1969. However, between 1969 and 1974, nearly an 80-percent increase in prices received by farmers called attention to the importance of product prices. Linn and Emerson argue that rapid price inflation causes change in the distribution of farms by economic sales class which should be taken into consideration when studying the structure of agriculture (8). They concluded that the effect of price inflation on farm numbers varies by sales class and that the percent of farms moving up to the next higher sales class is not equal to the percent increase in prices received by farmers. Although the exact effect is unknown, price inflation should not be ignored, particularly among the higher sales classes.

The number of persons living on farms in the top sales category—\$40,000 and over—increased by about three-fourths between 1970 and 1975 (table 5). A decline in population occurred among residents on farms in all other sales classes. Population growth on class 1 farms resulted in their proportionate share of the farm total rising from about an eighth in 1970 to almost a fourth at mid-decade. Despite this increase, farms in the lowest sales class still contain the largest number of people. However, the concentration of farm people on class 6 farms was true only among persons residing in the farm operator's household. Persons living in other dwelling units on farms, who are generally farmworkers and their families, were more likely to be on operations in the two top sales classes.

⁶Farms with sales of \$50 to \$2,499 were classified as part-time if the farm operator was under 65 years of age and he worked off the farm 100 or more days; they were classified as part-retirement if the farm operator was 65 years old or over.

Table 5. Farm population, by economic class and race, June 1975 and 1970

Value of products sold and race	Economic class	Population		Percentage change 1970-75	Percentage distribution	
		1975	1970		1975	1970
		--Thou.--			--Pct.--	
All races		8,728	10,017	-12.9	100.0	100.0
\$40,000 & over	1	2,119	1,203	76.1	24.3	12.0
\$100,000 & over		777	NA	-	8.9	-
\$40,000 - 99,999		1,341	NA	-	15.4	-
\$20,000 - 39,999	2	1,053	1,290	-18.4	12.1	12.9
\$10,000 - 19,999	3	1,017	1,518	-33.0	11.7	15.2
\$5,000 - 9,999	4	888	1,193	-25.6	10.2	11.9
\$2,500 - 4,999	5	869	1,227	-29.2	10.0	12.2
\$500 - 2,499	6	2,782	3,586	-22.4	31.9	35.8
White		8,264	9,307	-11.2	100.0	100.0
\$40,000 & over	1	1,989	1,098	81.1	24.1	11.8
\$100,000 & over		704	NA	-	8.5	-
\$40,000 - 99,999		1,284	NA	-	15.5	-
\$20,000 - 39,999	2	1,031	1,233	-16.4	12.5	13.2

Continued



Table 5—Farm population, by economic class and race, June 1975 and 1970—Continued

Value of products sold and race.	Economic class	Population		Percentage change	Percentage distribution	
		1975	1970	1970-75	1975	1970
		--Thou.--			--Pct.--	
\$10,000 - 19,999	3	992	1,461	-32.1	12.0	15.7
\$5,000 - 9,999	4	838	1,123	-25.4	10.1	12.1
\$2,500 - 4,999	5	827	1,147	-27.9	10.0	12.3
\$50 - 2,499	6	2,587	3,244	-20.3	31.3	34.9
Black		401	663	-39.5	100.0	100.0
\$40,000 & over	1	104	96	8.3	26.0	14.5
\$100,000 & over		57	NA	-	14.1	-
\$40,000 - 99,999		48	NA	-	11.9	-
\$20,000 - 39,999	2	15	51	-70.6	3.8	7.7
\$10,000 - 19,999	3	21	47	-55.3	5.2	7.1
\$5,000 - 9,999	4	40	62	-35.5	10.0	9.4
\$2,500 - 4,999	5	37	78	-52.6	9.2	11.8
\$50 - 2,499	6	183	329	-44.4	45.8	49.6

NA = not available

- = not applicable

Because of the higher rate of population growth during 1970-75 on class 1 farms in the combined northern and western States, these farms contained the largest proportion of farm population among sales classes in that region. Five years before, class 6 farms there had the largest proportion (table 6). The lowest sales category in the South continued to have the largest proportion of population among all sales categories in 1975 (table 7).

The dominance of class 6 among persons residing in the farm operator's household was significantly heavier among Blacks than Whites (table 8).

Economic Class I

In 1975, farms in sales class 1 contained 2.1 million people, about 900,000 more than in 1970. This was the only sales class to show population growth (table 5).

In recent years, an increasing number of family-operated farms have incorporated and a number of publicly traded corporations have also entered farming; the number of corporate farms increased by a third between 1969 and 1974. But, the actual number of farms operated by corporations remains relatively small. In 1974, only 29,000 farms, or 2 percent of all farms with sales over \$2,500, were operated by corporations. As expected, the relative importance of corporate farms increases as the value of sales of farm products increases; more than 90 percent of all incorporated farms were in the class 1 category.

Class 1 farms, totaling about 425,000 in 1975, received about \$70 billion in farm cash receipts and accounted for almost 80 percent of the total receipts for all farms (16, 18).⁷ Realized net income per class 1 farm averaged almost \$30,000 in 1975. Large numbers of class 1 farms are found in Iowa, Illinois, Nebraska, Texas, and Minnesota. In 1974, these five States contained a third of all farms selling agricultural products worth \$40,000 or more (12).

The population living on Class 1 farms is heavily represented in the northern and western States (table 6). In 1975, persons residing on these farms comprised 30 percent of the total farm population outside the South. But, in the total southern farm population, only 15 percent lived on these farms (table 7). Heav-

⁷Includes cash receipts from farm marketings, government payments, and other farm income.

Table 7—Southern farm population, by economic class and race, June 1975 and 1970

Value of products sold and race	Economic class	Population		Percentage change		Percentage distribution	
		1975	1970	1970-75		1975	1970
				1975	1970		

--Thou-- --Pct--

South		3,369	4,086	-17.5	100.0	100.0
\$40,000 & over	1	521	392	32.9	15.4	9.6
\$100,000 & over		225	NA	-	6.7	-
\$40,000-99,999		297	NA	-	8.8	-
\$20,000-39,999	2	213	263	-19.0	6.3	6.4
\$10,000-19,999	3	312	358	-12.8	9.3	8.8
\$5,000-9,999	4	368	450	-18.2	10.9	11.0
\$2,500-4,999	5	423	598	-28.3	12.6	14.6
\$50-2,499	6	1,532	2,026	-24.4	45.5	49.6
White		2,951	3,415	-13.6	100.0	100.0
\$40,000 & over	1	410	298	37.6	13.9	8.7
\$100,000 & over		164	NA	-	5.5	-
\$40,000-99,999		246	NA	-	8.3	-
\$20,000-39,999	2	196	213	-8.0	6.6	6.2

Continued

Table 6—Northern and western farm population, by economic class, June 1975 and 1970

Value of products sold	Economic class	Population		Percentage change		Percentage distribution	
		1975	1970	1970-75		1975	1970
				1975	1970		

--Thou-- --Pct--

North and West ¹		5,359	5,932	-9.7	100.0	100.0
\$40,000 & over	1	1,598	812	96.8	29.8	13.7
\$100,000 & over		553	NA	-	10.3	-
\$40,000-99,999		1,044	NA	-	19.5	-
\$20,000-39,999	2	840	1,027	-18.2	15.7	17.3
\$10,000-19,999	3	706	1,160	-39.1	13.2	19.6
\$5,000-9,999	4	519	743	-30.1	9.7	12.5
\$2,500-4,999	5	446	629	-29.1	8.3	10.6
\$50-2,499	6	1,251	1,561	-19.9	23.3	26.3

NA = not available
 - = not applicable
¹ See Table 1.

21

22

Table 7--Southern farm population, by economic class and race, June 1975 and 1970-Continued

Value of products sold and race	Economic class	Population		Percentage change 1970-75	Percentage distribution	
		1975	1970		1975	1970
		--Thou.--		-----Pct.-----		
\$10,000 - 19,999	3	289	308	-6.2	9.8	9.0
\$5,000 - 9,999	4	325	386	-15.8	11.0	11.3
\$2,500 - 4,999	5	386	520	-25.8	13.1	15.2
\$50 - 2,499	6	1,345	1,691	-20.5	45.6	49.5
Black		389	649	-40.1	100.0	100.0
\$40,000 & over	1	99	90	10.0	25.3	13.9
\$100,000 & over		54	NA	-	13.9	-
\$40,000 - 99,999		45	NA	-	11.5	-
\$20,000 - 39,999	2	15	50	-70.0	3.9	7.7
\$10,000 - 19,999	3	21	45	-53.3	5.4	6.9
\$5,000 - 9,999	4	39	60	-35.0	10.0	9.2
\$2,500 - 4,999	5	36	78	-53.8	9.3	12.0
\$50 - 2,499	6	179	327	-45.3	46.0	50.4

NA = not available
 - = not applicable

Table 8—Population in farm operator households, by economic class and race of operator,
June 1975 and 1970

Value of products sold and race of operator	Economic class	Population		Percentage change 1970-75	Percentage distribution	
		1975	1970		1975	1970
		-Thou-		-----Pct.-----		
All races		8,023	9,145	-12.3	100.0	100.0
\$40,000 & over	1	1,660	821	102.2	20.7	9.0
\$100,000 & over		491	NA	-	6.1	-
\$40,000 - 99,999		1,169	NA	-	14.6	-
\$20,000 - 39,999	2	978	1,145	-14.6	12.2	12.5
\$10,000 - 19,999	3	957	1,407	-32.0	11.9	15.4
\$5,000 - 9,999	4	851	1,116	-23.7	10.6	12.2
\$2,500 - 4,999	5	845	1,155	-26.8	10.5	12.6
\$50 - 2,499	6	2,732	3,501	-22.0	34.1	38.3
White		7,711	8,685	-11.2	100.0	100.0
\$40,000 & over	1	1,646	816	101.7	21.3	9.4
\$100,000 & over		486	NA	-	6.3	-
\$40,000 - 99,999		1,160	NA	-	15.0	-

Continued

Table 8—Population in farm operator households, by economic class and race of operator,
June 1975 and 1970—Continued

Value of products sold and race of operator	Economic class	Population		Percentage change	Percentage distribution	
		1975	1970	1970-75	1975	1970
		--Thou.--		-----Pct.-----		
\$20,000 - 39,999	2	963	1,138	-15.4	12.5	13.1
\$10,000 - 19,999	3	940	1,386	-32.2	12.2	16.0
\$5,000 - 9,999	4	811	1,070	-24.2	10.5	12.3
\$2,500 - 4,999	5	808	1,091	-25.9	10.5	12.6
\$50 - 2,499	6	2,543	3,183	-20.1	33.0	36.6
Black		274	428	-36.0	100.0	100.0
\$40,000 & over	1	6	1	500.0	2.3	.2
\$100,000 & over		1	NA	-	.4	-
\$40,000 - 99,999		5	NA	-	1.9	-
\$20,000 - 39,999	2	11	3	266.7	4.0	.7
\$10,000 - 19,999	3	13	13	-	4.7	3.0
\$5,000 - 9,999	4	32	41	-22.0	11.8	9.6
\$2,500 - 4,999	5	33	62	-46.8	12.0	14.5
\$50 - 2,499	6	178	308	-42.2	65.2	72.0

NA = not available

- = not applicable

ier rates of population increase among class 1 farm residents of the combined North and West have led to greater concentration of this population. Between 1970 and 1975, the number of persons living on these farms almost doubled outside the South; within the South, this population increased by about one-third (tables 6 and 7). As a result of this regional variation, the proportion of all class 1 farm population living in the combined northern and western States rose from 67 percent in 1970 to 75 percent in 1975 (tables 5 and 6).

Class 1 farms are now second only to class 6 in the number of farm people (table 5). In 1966, when such data were first collected, class 1 farms contained only 8 percent of the total farm population. The increase in the population residing on class 1 farms occurred only among Whites; their number grew by about 80 percent from 1970 to 1975. There was no significant change in the number of Blacks living on these farms during this 5-year period.

The increase in the number of persons living on class 1 farms occurred among residents of both farm operator and nonoperator households (tables 8 and 9). However, growth rates differed substantially. Between 1970 and 1975, the operator population living on these farms doubled while persons living in other dwelling units increased by about 20 percent. The heavier rate of population growth in the operator population can be explained in large part by the concomitant growth in the number of farms in this category: The U.S. Department of Agriculture estimates that from 1970 to 1975 the number of farms with sales of \$40,000 or more yearly rose from 232,000 to 429,000, an increase of 85 percent (16). Although farms in this higher sales class employ large numbers of hired farm workers, who are the primary occupants of other dwelling units on farms, the substantial increase in farm numbers was not accompanied by a similar increase in nonoperator population.⁸ This was due in part to the increasing tendency among farmworkers to commute from a nonfarm residence to their farm jobs. In 1975, seven out of every ten wage and salary agricultural workers lived off farms. In the late 1940s, only about a third of all hired farmworkers had a nonfarm residence (4, 9).

However, the population living in other dwelling units on farms still has a heavy concentration on class 1 farms. In 1975,

⁸In 1974, almost 90 percent of hired farm laborers who worked 150 days or more did so on class 1 farms.

almost two-thirds of the nonoperator population were on farms with sales in excess of \$40,000 (table 9). This disproportionate representation of nonoperator population has resulted in class 1 farms having a high national average of 5 people per farm. The average population per class 1 farm in the South and the combined North and West was 6.3 persons and 4.6 persons, respectively. For the other sales classes there was no distinct difference in average population regardless of region or sales level—ranging from 3.0 to 3.9 persons.

Because of the great differences in the contributions of farms in terms of output within the class 1 category, the 1969 Census of Agriculture separately identified and designated farms with value of products sold of \$100,000 or more as large-scale farms. These farms do not include all farms that might be considered large on the basis of acreage of land in farm, acres of cropland, number of cattle, total expenditures, number of hired employees, etc. Some are large because their operators purchased considerable quantities of farm animals produced by other farm operators—such as feeder cattle or baby chicks—and used them as inputs into their farm operations. In 1975, these farms represented only 5 percent of all farms but accounted for 47 percent of total cash receipts from farm marketing. They constituted one-fourth of all class 1 farms in 1975 and, from 1970 to 1975, their number doubled from 55,000 to 110,000 (16).

Farm population data for large-scale farms are available for 1973-75 only. Estimates for this 2-year period indicate that in the combined North and West the population on these upper level farms increased at a somewhat higher rate than on all class 1 farms as a whole; there was no significant difference in the South. Higher rates of population increase on large-scale farms were observed for both the operator and nonoperator populations.

These largest farms accounted for about a third of all residents on class 1 farms and 9 percent of the total farm population in 1975 (table 5). There were no significant racial differences in the proportion residing on class 1 farms as a whole, but this racial similarity ceases when we look at those farms with sales of \$100,000 or more separately. In 1975, Blacks living on these large-scale farms formed a larger proportion of the total Black farm population than did Whites as a part of the total White farm population (table 5). Racial differences also existed when the operator and nonoperator populations were separately exam-

Table 9—Farm population in nonoperator households, by economic class and race of head,
June 1975 and 1970

Value of products sold and race of head	Economic class	Population		Percentage change 1970-75	Percentage distribution	
		1975	1970		1975	1970

		--Thou.--		-----Pct.-----		
All races		705	873	-19.2	100.0	100.0
\$40,000 & over	1	458	382	19.9	65.0	43.7
\$100,000 & over		286	NA	-	40.6	-
\$40,000 - 99,999		172	NA	-	24.4	-
\$20,000 - 39,999	2	75	145	-48.3	10.6	16.6
\$10,000 - 19,999	3	60	111	-45.9	8.5	12.7
\$5,000 - 9,999	4	37	77	-51.9	5.2	8.8
\$2,500 - 4,999	5	24	73	-67.1	3.4	8.3
\$50 - 2,499	6	52	86	-39.5	7.4	9.9
White		554	622	-10.9	100.0	100.0
\$40,000 & over	1	340	282	20.6	61.4	45.3
\$100,000 & over		217	NA	-	39.1	-
\$40,000 - 99,999		124	NA	-	22.3	-

Continued

Table 9--Farm population in nonoperator households, by economic class and race of head,
June 1975 and 1970--Continued

Value of products sold and race of head	Economic class	Population		Percentage change 1970-75	Percentage distribution	
		1975	1970		1975	1970
		--Thou.--		-----Pct.-----		
\$20,000 - 39,999	2	68	95	-28.4	12.3	15.3
\$10,000 - 19,999	3	53	75	-29.3	9.6	12.1
\$5,000 - 9,999	4	27	53	-49.1	4.9	8.6
\$2,500 - 4,999	5	19	56	-66.1	3.4	9.0
\$50 - 2,499	6	46	60	-23.3	8.3	9.7
Black		127	236	-46.2	100.0	100.0
\$40,000 & over	1	98	95	3.2	77.2	40.4
\$100,000 & over		56	NA	-	43.8	-
\$40,000 - 99,999		42	NA	-	33.3	-
\$20,000 - 39,999	2	4	48	-91.7	3.3	20.4
\$10,000 - 19,999	3	8	33	-75.8	6.0	14.2
\$5,000 - 9,999	4	8	22	-63.6	6.0	9.3
\$2,500 - 4,999	5	5	16	-68.8	3.6	6.9
\$50 - 2,499	6	5	21	-76.2	3.9	8.9

NA = not available
- = not applicable

20

ined. Both had heavy representation of nonoperator population on large-scale farms. However, the nonoperator population accounted for about 30 percent of all Whites on large farms as compared to almost 100 percent of the Blacks (tables 5 and 9, fig. 1). The operator population of these large farms is dominated by Whites; Blacks are present on them largely as hired workers. The latest data (1974) on farm operators by race and economic class show that only a sixth of all minority operated farms with sales of \$2,500 and over had sales in excess of \$40,000 (12). In 1975, more than 40 percent of all persons living on class 1 farms in the South were on large-scale operations (table 7). In the combined northern and western States, about a third lived on such farms (table 6).

Economic Classes 2 and 3

Farms in economic class 2 contained 1.1 million residents in 1975 (table 5). Such farms, widely scattered throughout the country, comprised 11 percent of all farms and also accounted for 11 percent of cash farm receipts.

Although the number of people living on these farms decreased by 18 percent between 1970 and 1975, this was the lowest rate among the sales classes with population loss. However, this decline represents a reversal of the population trend evidenced for 1966-70, when the population on these farms increased by 12 percent. This switch to overall population loss results primarily from population changes on farms in the combined northern and western States, and almost certainly is caused largely by shifts upward into the class 1 group. The population on class 2 farms outside the South showed an increase of 18 percent for 1966-70 and an offsetting decrease of 18 percent for 1970-75. By contrast, the population on southern farms in this sales interval showed consistent decline for both periods although the rate was somewhat heavier during 1970-75 (tables 6 and 7).

A million persons, or 12 percent of the total farm population lived on farms in the next lower sales group. Since 1970, these class 3 farms experienced the highest relative loss among the sales classes (table 5). These farms are also scattered throughout the United States but, unlike classes 1 and 2 farms, most are operated by the farm operator and his family only with little outside help.⁹

⁹In 1974, about 10 percent had regular hired farm workers.

FARM POPULATION BY OPERATOR STATUS, RACE, AND VALUE OF FARM PRODUCTS SOLD, 1975

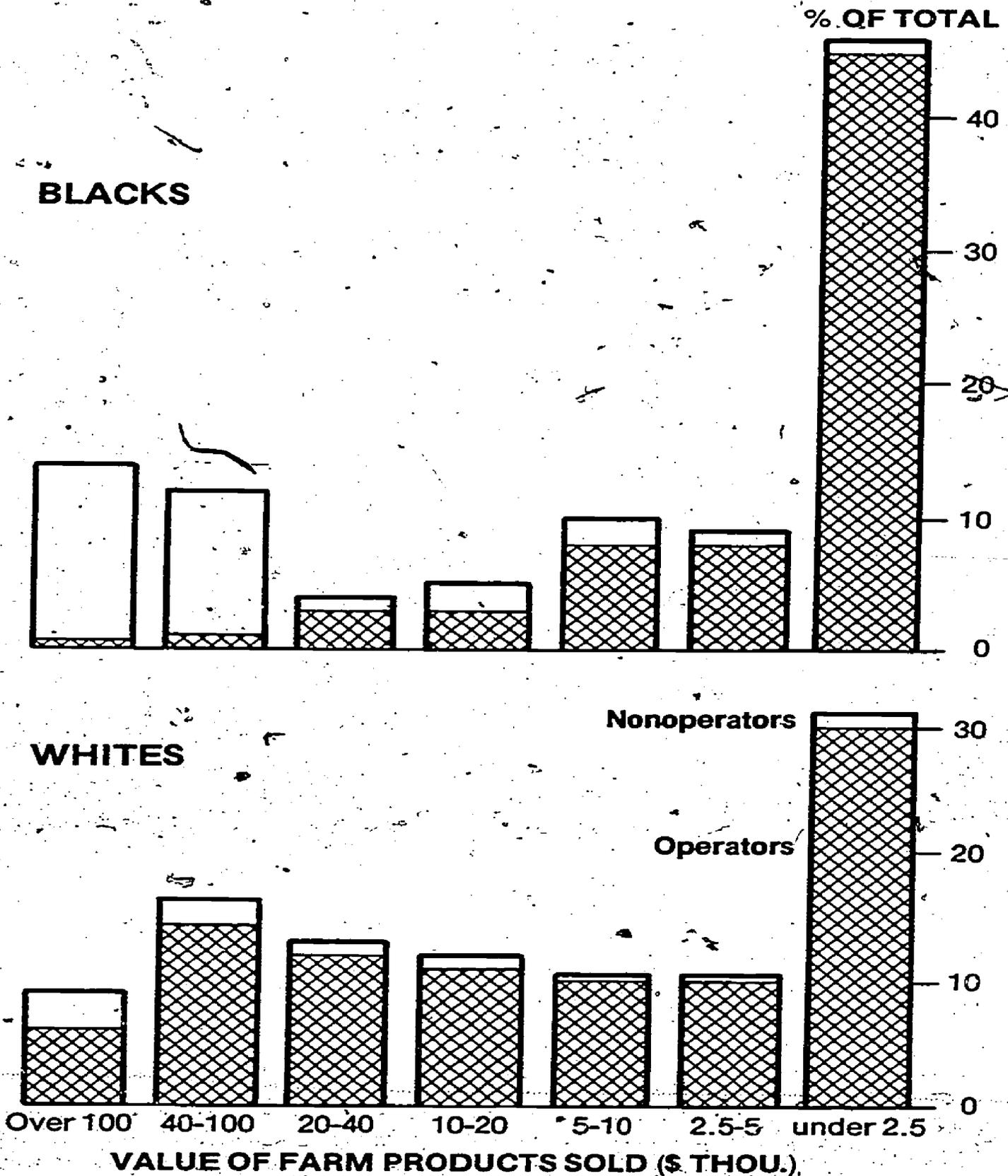


Figure 1

Heavier rates of population loss among residents on class 3 farms resulted in their containing a decreasing share of the national farm total. Examination of the population living on commercial farms (economic classes 1-5) finds class 3 being the most populous in both 1966 and 1970, at which time these farms contained 27 percent and 24 percent of all commercial farm residents, respectively. By 1975, their proportion was down to 17 percent. Relatively few Blacks live on classes 2 and 3 farms. In 1975, they constituted only 2 percent of the total population resident on such farms; this low representation was true in the non-operator as well as the operator population.

The proportion of nonoperator population was considerably less for farms with sales below \$40,000 annually. Only 7 percent of all persons living on class 2 farms and 6 percent of those on class 3 farms resided in other dwelling units and the proportion continues to decline as one proceeds down the sales ladder. On class 6 farms—the lowest sales class for which data are available—2 percent of the population lived in nonoperator households. This is in sharp contrast to class 1 farms where 22 percent of all residents lived in other dwelling units on farms.

The other dwelling units population shows heavier rates of population loss than the operator population on class 2 and all lower sales classes of farms. As a consequence, the nonoperator population on farms with sales of under \$40,000 comprises a decreasing share of the nonoperator total. In 1966, the earliest date for which such data are available, 69 percent of the nonoperator population lived on class 2-6 farms. By 1970, this proportion had fallen to 56 percent, and in 1975 only 35 percent of the population in nonoperator households lived on these farms (table 9). The increasing concentration of the nonoperator population on farms in the top sales class reflects their heavy use of farm resident hired employees.

Economic Classes 4 and 5

Economic classes 4 and 5 each accounted for about a tenth of the 1975 farm population. USDA estimates for 1975 indicated that income from nonfarm sources accounted for 73 percent of the average income on class 4 farms and 85 percent on class 5 farms. (16).¹⁰ The latest census data available revealed that 40

¹⁰Includes wages and salary incomes received from off-farm employment, net income from nonfarm self-employment, other incomes, and non-money income from farm food and housing.

percent of the operators of these farms worked off the farm 100 days or more and a third worked 200 days or more off the farm (12).

Between 1970 and 1975, the number of persons living on classes 4 and 5 farms declined at a rate somewhat less than that for class 3 farms but slightly higher than the lower class 6 farms (table 5).

Blacks residing on classes 4 and 5 farms combined with those on class 6 farms constitute 65 percent of the total Black farm population (table 5). In contrast, only 9 percent of the Black farm population lives on economic classes 2 and 3 farms while 26 percent, mostly hired farmworkers, live on class 1 farms. Whites residing on classes 4, 5, and 6 farms constitute about 51 percent of the total White farm population while those living on class 1 and the combined classes 2 and 3 each contained about 24 percent of the White total, further dramatizing the concentration of Blacks on farms in the lower sales classes. This concentration is also clearly drawn when Black operator status is examined. In 1975, 84 percent of the Black farm population residing on classes 4 and 5 farms lived in the farm operator's household (tables 5 and 8). For the higher sales classes (1, 2, and 3) as a whole, an average of only 21 percent was classed as operator population.

The South had a higher proportion of the Nation's classes 4 and 5 farm population than the higher sales classes. In 1975, almost 45 percent of the population residing on classes 4 and 5 farms lived in the South, compared to only about a fourth for classes 1, 2, and 3 (tables 5 and 7).

Economic Class 6

In 1975, nearly a third of all U.S. farm residents lived on class 6 farms. Although the proportion has trended downward, class 6 farms still contain the largest share of the farm population among the six economic classes (table 5). Class 6 also has the highest percentage of farms. In 1975, two-fifths of all U.S. farms were in this sales category. These farms are usually small in acreage and average value, and the increasing tendency for farm families to supplement farm incomes with income from nonfarm work is heaviest here. USDA estimated that, in 1975, 89 percent of the total money income received by the average class 6 farm came from off-farm sources (16).

The 1970-75 rate of population loss on class 6 farms was about the same rate of loss experienced during 1966-70: Although well above the national average of 13 percent, this relative decline was still somewhat lower than that for all higher sales classes except class 2 farms (table 5). This low rate of population loss where sales are at their lowest partly results from the large number of part-time farm residents in this category.

Blacks were more likely to be living on these small-scale farms than were Whites. This racial disparity disappears when the farm population of the South is examined separately (tables 5 and 7). However, the southern Black rate of population loss in the class 6 category was more than double that of Whites.

In 1974, nearly three-fifths of the Nation's 620,000 farms with sales under \$2,500 were in the southern States (12). And, as expected, the southern farm population has a heavy representation on these farms—46 percent in 1975. While the South contained only 39 percent of all farm people in 1975, 55 percent of the population of class 6 farms lived in the southern States. By contrast, in 1975, in the combined North and West, class 6 farms did not contain the largest number of farm people (table 6). This is a recent development, as in both 1966 and 1970 these small-scale farms contained the most farm residents regardless of region of residence. However, a sustained increase in the population residing on class 1 farms accompanied by continued decline among persons on class 6 farms resulted in a decrease in the latter's proportionate share. From 1966 to 1975, the class 6 share of the northern and western farm population declined from 28 percent to 23 percent (3 and table 6). During this same period, the proportion living on class 1 farms rose from 8 percent to 30 percent.

Class 6 farms contain little nonoperator population. Although these farms have some rent-free households for relatives or other household members, there are few hired farm worker units which in general comprise the majority of the nonoperator population.

Additional information was obtained on the group with farm sales of \$50 to \$2,499 which allowed separation of farm population statistics into three sales categories: (1) \$1,000 to \$2,499; (2) \$250 to \$999; and (3) \$50 to \$249. In 1975, these three groups contained 15 percent, 13 percent, and 4 percent of the total farm population, respectively, with somewhat higher proportions in each category for the South. Blacks were found to have a dis-

proportionately high representation on farms with sales under \$1,000. In 1975, 32 percent of all Black farm residents lived on farms in this sales group; in the White farm population 17 percent resided on such farms. The distribution of the population in the farm operator's household among these three sales intervals was about the same as for all farm residents.

FARM POPULATION BY TYPE OF FARM

The general farm that produces a wide variety of farm products is rapidly disappearing. Continued advances in production technology and changes in marketing demands are some of the major forces leading to increased specialization in farm production. The classification of farms by type groups together farms having a relatively high degree of uniformity in the kinds and amounts (or proportions) of crops and livestock products produced. This classification shows the degree of specialization and the patterns of agricultural production.

Farms are classified into types on the basis of the major source of farm product sales. In the JES, a farm is classified as a particular type based on the product, or group of products, having the largest percentage of total sales. This differs slightly from the census of agriculture where, in order for a farm to be classified as a particular type, the value of sales from a product, or a group of products, has to represent 50 percent or more of total sales.

For the types of farms for which data are presented in this report, together with the products, or group of products, on which the classification of farms by type is based, see the Definitions and Explanations section of this report. The classification by type is based on sales for a single reporting year, and the number and distribution of farms by type for a given year may be influenced by abnormal weather conditions, disease, or shifts in the relative prices of various farm products.

Data on type of farm provide a basis for the study of agricultural problems such as those relating to the development of land use programs, farm adjustment programs, and problems dealing with the production and marketing of agricultural products. The data are also of value to those who provide products for production purposes and services for farms and farm people. This section examines variations in the number and characteristics of persons living on these different types of farms.

Population data by type of farm was first collected as part of the 1973 JES. Therefore, the data presented here relate to the 1973-75 period only.

More people live on livestock and cash-grain farms than any of the other farm types. In 1975, these types contained over half of both White and Black farm people. However, Whites not living on livestock and cash-grain farms were more likely to be living on dairy farms while Blacks were more likely to be on tobacco farms.

A decline in number of residents was indicated for all farm types except cash-grain, vegetable, and fruit and nut. Between 1973 and 1975, the population on cash-grain farms increased by about a third, and the number on vegetable, and fruit and nut farms each grew by about an eighth. An increase in the number of persons residing on cash-grain farms occurred without regard to race or region of residence. Substantial increases were indicated for both the operator and nonoperator populations residing on these farms with a considerably higher rate of growth indicated for the latter group. The increase in number of cash-grain farms from 1969-74 justifies growth in both populations as these farms employ large numbers of hired farm laborers whose families comprise the bulk of the nonoperator population.

Persons living on farms in the combined North and West regions were as likely to be on a livestock farm as on a cash-grain farm. In 1975, each of these types contained about a third of the regional total. By contrast, in the South, livestock farms with nearly half of the total were the dominant type. Cash-grain and tobacco were of about equal importance; each contained nearly a fifth of all southern farm people.

Cash-Grain Farms

Cash-grain farms are principally wheat, corn, soybean, and rice farms. Their greatest concentration is in the Corn Belt, where corn and soybeans are the principal crops sold. Three-fourths of all persons living on cash-grain farms reside in the combined northern and western States. In 1974, these farms comprised about a third of all U.S. commercial farms and accounted for a half of their total cropland. Cash-grain farms are highly mechanized; 88 percent have tractors other than garden and motor tillers and almost half have grain and bean combines:

Although the number of U.S. farms has declined overall, the census of agriculture indicates that the number of cash-grain farms increased from 369,000 to 580,000 from 1969 to 1974 (12).

In 1975, more farm people lived on cash-grain farms than any other type of farm except livestock (table 10). Because of the rapid growth of population on these farms (see table 10), there has been an improvement in their relative importance—mostly at the expense of livestock farms—in the distribution of farm people by type. The gap in the percentages of farm population residing on cash-grain and livestock farms narrowed by about 12 percentage points between 1973 and 1975. Substantial increases in the number of persons residing on cash-grain farms occurred with no difference due to race or region of residence.

In the combined northern and western States, there was no significant difference between the number of persons living on cash-grain and livestock farms in 1975 (table 11). However, only 2 years earlier, cash-grain farms in this region contained about a third fewer people than did livestock farms. The near equalization of numbers resulted from cash-grain farms experiencing an increase of 26 percent in the number of residents between 1973 and 1975, while livestock farms lost 18 percent of their residents. To some extent, shifts in these two types merely reflect fluctuations from one year to another in prices received for livestock and grain on farms producing both, or result from variations in the relative advantage to a producer of selling grain rather than feeding it to stock. Another part of the shift may represent longer term changes in farm types.

In the South, the largest number of people are still found on livestock farms. But, here too, cash-grain farms have also gained in relative importance as the number of persons on these farms increased by more than a half in the 1973-75 period (table 12). Census data on changes in numbers of farms by type support the growing importance of southern cash-grain farms as their number grew by three-fourths between 1969 and 1974. The 1974 Census of Agriculture shows significant increases since 1969 on southern farms in soybean acreage without offsetting cutbacks in other grains. Continued increase in the number of southern cash-grain farms is likely.

Whites and Blacks on cash-grain farms experienced substantial increases in both the operator and nonoperator populations, with a considerably higher rate of increase indicated for the latter population group (tables 13 and 14). The increase of cash-grain

Table 10—Farm population, by type of farm and race, June 1975 and 1973

Type of farm and race	Population		Percentage change 1973-75	Percentage distribution	
	1975	1973		1975	1973
	-- Thou. --		-- Pct. --		
All races	8,728	9,108	-4.2	100.0	100.0
Cash-grain	2,382	1,784	33.5	27.3	19.6
Tobacco	635	713	-10.9	7.3	7.8
Cotton	168	260	-35.4	1.9	2.8
Other field-crops	380	408	-6.9	4.4	4.5
Vegetables	140	124	12.9	1.6	1.4
Fruit and nut	247	217	13.8	2.8	2.4
Livestock	3,414	3,951	-13.6	39.1	43.4
Poultry	141	187	-24.6	1.6	2.1
Dairy	1,028	1,159	-11.3	11.8	12.7
Miscellaneous	194	305	-36.4	2.2	3.3
White	8,264	8,570	-3.6	100.0	100.0
Cash-grain	2,265	1,716	32.0	27.4	20.0
Tobacco	537	563	-4.6	6.5	6.6
Cotton	127	187	-32.1	1.5	2.2
Other field-crops	365	385	-5.2	4.4	4.5
Vegetables	112	94	19.1	1.4	1.1
Fruit and nut	229	206	11.2	2.8	2.4
Livestock	3,278	3,796	-13.6	39.7	44.3
Poultry	138	181	-23.7	1.7	2.1
Dairy	1,024	1,148	-10.8	12.4	13.4
Miscellaneous	191	294	-35.0	2.3	3.4
Black	401	488	-17.8	100.0	100.0
Cash-grain	105	65	61.5	26.2	13.4
Tobacco	90	146	-38.4	22.5	29.8
Cotton	36	70	-48.6	9.1	14.3
Livestock	120	142	-15.5	30.0	29.0
All others	49	65	-24.6	12.2	13.4

farms justifies growth in both populations as these farms employ large numbers of hired farm laborers whose families comprise the bulk of the nonoperator population. In the South, many such farms are thought to be former large cotton plantations. Nationally, cash-grain farms also have a heavy concentration of group

Table 11—Northern and western farm population, by type of farm, June 1975 and 1973

Type of farm	Population		Percentage change 1973-75	Percentage distribution	
	1975	1973		1975	1973
	--- Thou. ---		--- Pct. ---		
North and West ¹	5,359	5,606	-4.4	100.0	100.0
Cash-grain	1,783	1,416	25.9	33.3	25.3
Tobacco	27	29	-6.9	.5	.5
Cotton	35	42	-16.7	.6	.7
Other field-crops	270	287	-5.9	5.0	5.1
Vegetables	73	63	15.9	1.4	1.1
Fruit and nut	203	180	12.8	3.8	3.2
Livestock	1,858	2,276	-18.4	34.7	40.6
Poultry	65	77	-15.6	1.2	1.4
Dairy	904	1,007	-10.2	16.9	18.0
Miscellaneous	141	228	-38.2	2.6	4.1

¹ See Table 1.

quarters population. In 1975, these farms contained more than a fourth of all persons, mainly laborers, living in bunk houses and other types of group quarters.

Tobacco, Cotton, and Other Field-Crop Farms

Tobacco farms are predominantly located in the South. In 1975, North Carolina, Kentucky, Virginia, Tennessee, Georgia, and South Carolina accounted for 90 percent of the total U.S. tobacco production. On the other hand, cotton production was concentrated in the southern and western States of Texas, California, Mississippi, Arizona, and Arkansas which produced 80 percent of the 1975 cotton crop. Other field-crop farms represent different kinds of farms in various parts of the country. In most States, it is possible to identify other field-crop farms with a speciality crop. For example, in Idaho, Washington, Maine, and Oregon, they are principally potato farms; in Georgia, Alabama, Texas, Oklahoma, and Virginia, they are mainly peanut farms; and in Hawaii, Florida, and Louisiana, they are sugarcane farms.

In 1975, these three farm types—tobacco, cotton, and other field-crops—contained 14 percent of the national farm popula-

Table 12—Southern farm population, by type of farm and race June 1975 and 1973

Type of farm and race	Population		Percentage change 1973-75	Percentage distribution	
	1975	1973		1975	1973
	<i>Thou.</i>			<i>Pct.</i>	
South	3,369	3,501	-3.8	100.0	100.0
Cash-grain	598	368	62.5	17.8	10.5
Tobacco	608	684	-11.1	18.0	19.5
Cotton	133	218	-39.0	3.9	6.2
Other field-crops	111	121	-8.3	3.3	3.5
Vegetables	66	61	8.2	2.0	1.7
Fruit and nut	44	37	18.9	1.3	1.1
Livestock	1,556	1,674	-7.0	46.2	47.8
Poultry	76	110	-30.9	2.3	3.1
Dairy	123	152	-19.1	3.7	4.3
Miscellaneous	53	76	-30.3	1.6	2.2
White	2,951	3,006	-1.8	100.0	100.0
Cash-grain	492	303	62.4	16.7	10.1
Tobacco	510	534	-4.5	17.3	17.8
Cotton	95	146	-34.9	3.2	4.9
Other field-crops	100	105	-4.8	3.4	3.5
Vegetables	41	34	20.6	1.4	1.1
Fruit and nut	35	34	2.9	1.2	1.1
Livestock	1,433	1,532	-6.5	48.6	50.9
Poultry	73	104	-29.8	2.5	3.5
Dairy	120	143	-16.1	4.1	4.8
Miscellaneous	52	71	-26.8	1.7	2.4
Black	389	478	-18.6	100.0	100.0
Cash-grain	100	64	56.2	25.7	13.3
Tobacco	90	146	-38.4	23.2	30.5
Cotton	36	69	-47.8	9.2	14.5
Livestock	117	137	-14.6	30.1	28.6
All others	46	62	-25.8	11.8	13.1

Table 13—Population in farm operator households, by type of farm and race of operator, June 1975 and 1973

Type of farm and race of operator	Population		Percentage change 1973-75	Percentage distribution	
	1975	1973		1975	1973
	-- Thou. --		-- Pct. --		
All races	8,023	8,346	-3.9	100.0	100.0
Cash-grain	2,149	1,659	29.5	26.8	19.9
Tobacco	595	632	-5.9	7.4	7.6
Cotton	113	179	-36.9	1.4	2.2
Other field-crops	338	364	-7.1	4.2	4.4
Vegetables	125	110	13.6	1.6	1.3
Fruit and nut	212	185	14.6	2.6	2.2
Livestock	3,200	3,684	-13.1	39.9	44.1
Poultry	135	165	-18.2	1.7	2.0
Dairy	978	1,072	-8.8	12.2	12.8
Miscellaneous	178	296	-39.9	2.2	3.5
White	7,711	7,986	-3.4	100.0	100.0
Cash-grain	2,091	1,620	29.1	27.1	20.3
Tobacco	515	531	-3.0	6.7	6.6
Cotton	99	140	-29.3	1.3	1.8
Other field-crops	331	348	-4.9	4.3	4.4
Vegetables	99	85	16.5	1.3	1.1
Fruit and nut	204	178	14.6	2.6	2.2
Livestock	3,086	3,563	-13.4	40.0	44.6
Poultry	133	164	-18.9	1.7	2.1
Dairy	977	1,071	-8.8	12.7	13.4
Miscellaneous	175	286	-38.8	2.3	3.6
Black	274	320	-14.4	100.0	100.0
Cash-grain	53	36	47.2	19.5	11.2
Tobacco	73	98	-25.5	26.7	30.6
Cotton	14	38	-63.2	5.0	11.9
Livestock	102	108	-5.6	37.3	33.8
All others	32	40	-20.0	11.5	12.5

Table 14—Farm population in nonoperator households, by type of farm and race of head, June 1975 and 1973

Type of farm and race of head	Population		Percentage change 1973-75	Percentage distribution	
	1975	1973		1975	1973
	-- Thou. --		----- Pct. -----		
All races	705	762	-7.5	100.0	100.0
Cash-grain	233	126	84.9	33.0	16.6
Tobacco	40	81	-50.6	5.7	10.6
Cotton	55	80	-31.2	7.8	10.5
Other field-crops	42	44	-4.5	5.9	5.7
Vegetables	14	14	—	2.0	1.8
Fruit and nut	35	32	9.4	5.0	4.2
Livestock	214	268	-20.1	30.4	35.1
Poultry	7	22	-68.2	.9	2.9
Dairy	49	87	-43.7	7.0	11.4
Miscellaneous	16	9	77.8	2.3	1.2
White	554	584	-5.1	100.0	100.0
Cash-grain	173	96	80.2	31.3	16.4
Tobacco	22	33	-33.3	4.0	5.6
Cotton	28	47	-40.4	5.0	8.0
Other field-crops	33	36	-8.3	6.0	6.2
Vegetables	13	9	44.4	2.3	1.6
Fruit and nut	25	28	-10.7	4.5	4.8
Livestock	192	233	-17.6	34.7	39.9
Poultry	6	17	-64.7	1.0	2.9
Dairy	46	77	-40.3	8.4	13.2
Miscellaneous	16	9	77.7	2.8	1.5
Black	127	169	-24.9	100.0	100.0
Cash-grain	52	30	73.3	40.8	17.6
Tobacco	17	48	-64.6	13.5	28.4
Cotton	23	32	-28.1	17.9	18.7
Livestock	18	33	-45.5	14.4	19.8
All others	17	26	-34.6	13.4	15.4

tion. However, there were significant differences in the number of persons residing on each type. Tobacco farms contained more people than other field-crop and cotton farms combined (table 10). The relative distribution of the population residing on these farms is consistent with the distribution of number of farms by type. In 1959, cotton farms were the most numerous and tobacco ranked second; beginning in the 1964 agricultural census, this order reversed. The shifting in the relative importance among these three types of farms resulted primarily from the decline in cotton farming. The number of farms with sales over \$2,500 that harvested cotton declined by about two-fifths in both 1964-69 and 1969-74. During these same two periods, farms with sales of \$2,500 or more harvesting tobacco declined 18 percent and 7 percent, respectively (11, 12).

Although these three farm types registered an overall population loss for 1973-75 of 14 percent, there were wide variations in the individual rates of loss. The population on cotton farms declined most sharply and actually suffered the heaviest rate of population loss of any of the nine specified farm types (table 10).

Tobacco, cotton, and other field-crop farms combined had a heavy representation among Blacks. In 1975, these three farm types contained 34 percent of all Black farm residents, compared to 12 percent among Whites.¹¹ Despite this concentration, Blacks represent little more than a tenth of all persons living on these farms. The heavy representation of Black farm residents among these three types results primarily from tobacco and cotton farms which have historically had the densest concentration of Black farmers and are relatively more important among this racial group (6). In 1969, these two types of farms comprised half of all Black-operated farms.

There was a substantial drop in the number of Blacks living on both tobacco and cotton farms, but Whites experienced a significant decline on cotton farms only. The indicated decline in the number of Whites residing on tobacco farms was not significant over the 1973-75 period.

The population residing on these three types of farms as a whole was predominantly southern—72 percent. However, individually, this pertained to tobacco and cotton farms only. Per-

¹¹Data for Blacks on other field-crop farms are not shown separately in table 10. In 1975, there were 12,000 Blacks on these farms.

sons living on other field-crop farms were more likely to reside in the combined northern and western States (tables 10 and 12).

Rates of population loss for these types as a whole were considerably heavier among persons residing in other farm dwelling units. For 1973-75, the declines were 33 percent and 11 percent for the nonoperator and operator populations, respectively. As a consequence, the proportion of the nonoperator population on these farms dropped from 27 percent in 1973 to 19 percent in 1975. There was no significant difference in the relative importance of these farms among persons in the operator population.

Livestock Farms

In 1975, there were more inhabitants on livestock farms than any other single type, but their proportion of the farm population has been declining (table 10). This decline has not resulted from extreme rates of population loss, as has happened among some other farm types, but rather from the rapid growth in the number of residents on cash-grain farms.

In 1975, livestock farms contained the highest proportion of both White and Black farm residents (table 10). This is a recent development for Blacks. When the data were first collected in 1973, the predominance of livestock farm residents pertained only to Whites. At that time, tobacco and livestock farms contained about equal proportions of Blacks. However, the very high rate of Black population loss on tobacco farms for the 1973-75 period substantially reduced the relative importance of that population.

The number of persons on livestock farms fell more rapidly in the combined northern and western States than in the South (tables 11 and 12). Despite this higher proportionate loss, there were still somewhat more people living on livestock farms outside the South. However, livestock farms no longer contained the largest group and, in 1975, livestock and cash-grain farms in the combined North and West were of about equal importance in number of farm residents.

The indicated decline over the 1973-75 period in southern livestock farm residents was not statistically significant for either the number or proportion of persons. At both dates, these farms contained about 1.6 million persons, or almost half of the total southern farm population.

The nonoperator population is heavily represented on livestock farms (table 14). Livestock operations can require large numbers of hired farm laborers. In 1974, nearly a fifth of all regular and year-round farmworkers were on livestock farms.¹² The average number of persons living in nonoperator units on livestock farms was not significantly different from that found on other farm types. Therefore, it can be assumed that most of these nonoperator dwelling units were individual family size households rather than group quarters such as bunk houses.

Dairy Farms

Despite the notable decline in their number, dairy farms remain one of the largest groups of specialized farms in the United States. Milk production, however, has not been adversely affected by the decrease in the total number of economic classes 1-5 dairy farms as today's milk supply is being produced by fewer but larger herds. According to the census of agriculture "Nearly all of the increase in the size of milk cow herds occurred on farms with 50 milk cows or more.... This increase has been made possible by several factors which included technological advancements in the form of new equipment, modern facilities which permit the family-size farm to be expanded, and producers willingness to invest in innovations" (10). The average number of cows per dairy type farm has increased from 30 in 1964, to 37 in 1969, and to 48 in 1974. The northeastern region and the Lake States are the Nation's principal milk producing areas (18).

Although dairy farms experienced a decline in number of residents between 1973 and 1975, there has been no significant change in their relative ranking among farm types (table 10). In both years, about an eighth of the total farm population resided on these farms, and they ranked third in the number of persons.

Dairy farming is almost entirely conducted by White farmers, even in the South. In 1974, there were only about 800 Black-operated dairy farms and in 1975 less than half of 1 percent of all persons living on dairy farms were Black. Most of these were not in operator households.

Regionally, almost 90 percent of the persons on dairy farms lived in the combined northern and western States, and these farms were of high relative importance in the distribution of

¹²Persons who did 150 days or more of hired farm work.

farm people by type outside the South. Dairy farm residents comprised a higher percentage of the farm population in the northern and western States than they did in the South (tables 11 and 12).

Among the various farm types, persons on dairy farms are the most likely to be living in the operator's household (tables 10 and 13). Although they have a rather small resident nonoperator population, dairy farms hire sizeable numbers of farmworkers. In 1974, about half of all dairy farms had some hired farm labor, and their number constituted nearly a tenth of total hired farmworkers. If seasonal or part-time workers are omitted, and only fulltime employment considered, dairy farms rank third among the farm types in number of workers. Thus, it appears that the national trend among farm wage-workers to live off the farm and commute to work is very prevalent among dairy workers.

Vegetable, and Fruit and Nut Farms

The production of vegetables, fruits, and nuts is concentrated on a relatively small number of large, highly specialized farms. In 1974, there were about 20,000 vegetable farms; they represented 1 percent of all classes 1-5 farms and contained less than 1 percent of total commercial cropland. Vegetable farms are widely scattered, but there are significant concentrations in California, Wisconsin, Michigan, New York, Florida, Texas, and New Jersey. These States account for about half of all U.S. vegetable farms.

Fruit and nut farms are also highly specialized, but they are more numerous than vegetable farms—about 51,000 in 1974. At that time, fruit and nut farms comprised 3 percent of all classes 1-5 farms. California, Florida, Washington, Michigan, and New York contained three-fourths of the total number of these farms.

There was an increase in population for both farm types over the 1973-75 period (table 10). The increase in the number of persons residing on vegetable, and fruit and nut farms occurred only among Whites. For Blacks on these farms, who numbered only about 30,000, there was some slight though not significant population decline indicated for 1973-75.

For vegetable, and fruit and nut farms as a whole, there was no significant differences in relative population retention between the two geographic regions. For 1973-75, the rate of increase among persons residing on these farms in the combined northern

and western States was 14 percent; for southerners on these farms, the increase was 12 percent.

These farms have a high proportion of nonoperator population. Although the number of persons living in other dwelling units on vegetable, and fruit and nut farms is relatively small (50,000), they constitute about an eighth of all residents on these farms, a proportion that is higher than on any other farm type except cotton (compare data in tables 10 and 14). The presence of nonoperator population is highly associated with farm wage-workers. In 1974, three-fourths of these farms had some hired workers.

Poultry and Miscellaneous Farms

The great bulk of all farm products sold from poultry farms comes from large-scale operations. In 1974, three-fourths of all poultry and egg farms had sales in excess of \$40,000.

In this study, miscellaneous farms include those farms producing nursery and greenhouse products; those on which either forest products, or horses and mules, or other miscellaneous livestock products were the principal products sold; as well as those farms on which several types of farm products were sold. In this latter group, there were wide differences in the types of products sold in various parts of the country.

Between 1973 and 1975, poultry and miscellaneous farms suffered a significantly heavier rate of population loss than observed for any other group in this analysis (table 10). In this 2-year period, the number of persons residing on these farms declined about 32 percent.

Regional location was not a significant factor in either the relative importance of the population living on this group of farms or in the rate of population decline. Both the South and the combined North and West had about 4 percent of their total farm population on poultry and miscellaneous farms and in both regions this group had heavy population loss. There were, however, some differences in rates of population decline by operator status of the population. Among persons living in the farm operator's household, those on poultry and miscellaneous farms declined by nearly a third from 1973 to 1975, the heaviest relative loss among the various groups of farm types. On the other hand, although the number of persons living in other dwelling units of these two farm types declined by about a fourth in the 2-year

period, their rate of loss was still not as high as that experienced by persons in the nonoperator population on both dairy farms (44 percent) and tobacco, cotton, and other field-crop farms (33 percent).

IMPLICATIONS

The distribution of the farm population is strongly associated with the distribution of farms by value of products sold and type. However, the continued downward trend in the number of persons living on U.S. farms has had little adverse effect on total agricultural production since the major producers in our commercial agricultural economy do not comprise the bulk of the farm population. In 1975, economic class 1 farms—those whose operators do most of the buying and selling that turn the wheels of the Nation's enormous agricultural business and food and fiber marketing complex—contained only about 2 million, or one-fourth of the total farm population. However, these farms, with sales in excess of \$40,000 annually, were the only ones on the value-of-sales continuum to experience an increase in the number of residents. Farms in all lower sales classes continue to experience farm population decline.

About three farm residents out of every five live on farms with sales of less than \$20,000 annually. As a group, these are mostly small farmers with low production and low levels of gross income from farming. In the mid-1970s, these farmers controlled about 30 percent of all farm assets (land, buildings, machinery, etc.) but produced only about a tenth of the Nation's farm output (16). Despite substantial rates of population loss, the highest proportion of the farm population still resides on farms in the lowest sales class. In 1975, about a third of the total farm population was on places with annual sales of less than \$2,500 and depended substantially on off-farm income.

The degree of farm specialization and patterns of agricultural production also influence the distribution of the farm population. Although there has been, and will be some shifting in relative ranking, the U.S. farm population is highly concentrated on livestock, cash-grain, and dairy farms. This also effects the distribution of the farm population within regions in that certain types evidence different regional concentrations. For example, persons living on farms in the northern and western States are as likely to be on a livestock farm as a dairy farm. In 1975, each of these

two types contained about a third of the farm population total. On the other hand, among southern farm residents, livestock farms are the most populous type. Nearly half of the southern farm population lived on livestock farms in 1975.

LITERATURE CITED

- (1) Banks, Vera J.
Farm Population Estimates for 1975. Agr. Econ. Rpt. 352. U.S. Dept. Agr., Econ. Res. Serv., Oct. 1976, p. 8.
- (2) _____, and Calvin L. Beale
Farm Population Estimates, 1910-70. Stat. Bul. 523, U.S. Dept. Agr., Rural Devlpmt. Serv., July 1973, p. 47.
- (3) _____
Farm Population by Race, Tenure, and Economic Scale of Farming, 1966 to 1970. Agr. Econ. Rpt. 228. U.S. Dept. Agr., Econ. Res. Serv., June 1972, p. 14.
- (4) _____, Diana DeAre, and Robert C. Speaker
Farm Population of the United States: 1975. Current Pop. Rpts., Series P-27, No. 47. U.S. Bur. Census and U.S. Dept. Agr., cooperating, Sept. 1976, p. 27.
- (5) _____, Robert C. Speaker, and Richard L. Forstall
Farm Population of the United States: 1973. Current Pop. Rpts., Series P-27, No. 45. U.S. Bur. Census and U.S. Dept. Agr., cooperating, Sept. 1974, p. 21.
- (6) Beale, Calvin L.
The Black American in Agriculture. *In* The Black American Reference Book, Ch. 3, p. 284-315. Mable M. Smythe, Ed., Prentice Hall, Inc. 1976.
- (7) Lewis, James A.
White and Minority Small Farm Operators in the South. Agr. Econ. Rpt. 353. U.S. Dept. Agr., Econ. Res. Serv., Dec. 1976, p. 39.
- (8) Lin, William, and Peter M. Emerson
Price Inflation and Changes in Farm Numbers by Economic Sales Class. U.S. Dept. Agr., Econ. Stat. Coop. Serv. (Forthcoming).
- (9) Rowe, Gene A., and Leslie Whitener Smith
The Hired Farm Working Force of 1975. Agr. Econ. Rpt. 355. U.S. Dept. Agr., Econ. Res. Serv., Dec. 1976, p. 30.
- (10) U.S. Bureau of the Census
Census of Agriculture, 1969. Vol. II, General Report. Ch. 2. Farms: Number, Use of Land, Size of Farm; Ch. 3. Farm Management, Farm Operators; Ch. 7. Value of Products, Economic Class, Contracts; and Ch. 8. Type of Farm. 1973.

- (11) _____
Census of Agriculture, 1964, Vol. II, General Report, Statistics by Subject. 1968.
- (12) _____
Census of Agriculture, 1974. United States Summary and State Data, Vol. I, Pt. 51, Dec. 1977.
- (13) _____ and U.S. Department of Agriculture
Farm Population of the United States: (specified year). Series P-27. (Available from either Department.)
- (14) _____
Farm Population of the United States: 1970. Current Pop. Rpts., Series P-27, No. 42. Aug. 1971, p. 11.
- (15) U.S. Department of Agriculture
Farm Population Estimates (for specified year). Econ. Stat. Coop. Serv.
- (16) _____
Farm Income Statistics. Stat. Bul. 576. Econ. Res. Serv., July 1977, p. 57.
- (17) _____
Farm Population Estimates for 1973. ERS-561. Econ. Res. Serv., Aug. 1974, p. 10.
- (18) _____
Fact Book of U.S. Agriculture. Misc. Pub. 1063. Off. of Comm. Mar. 1976, p. 99.
- (19) _____
Scope and Methods of the Statistical Reporting Service. Misc. Pub. 1308. Stat. Rptg. Serv., July 1975, p. 157.

DEFINITIONS AND EXPLANATIONS

Population coverage. Population estimates in this report relate to the 48 conterminous States and thus exclude Alaska and Hawaii.

Farm population. The farm population consists of all persons living on places of 10 or more acres if as much as \$50 worth of agricultural products were sold from the place in the preceding year. It also includes those living on places of under 10 acres if as much as \$250 worth of agricultural products were sold from the place. Persons in institutions, summer camps, motels, and tourist camps, and those persons living on rented places where no land is used for farming are classified as nonfarm.

Race. The population is divided into three groups on the basis of race: White, Black, and Other Races. The last category, includes Indians, Japanese, Chinese, and any other race except White and Black (persons of Mexican birth or ancestry are classified as White). In this report estimates are shown separately for Whites and Blacks, and in the text, the term race refers to this division. Estimates for Other Races are included in estimates for the total (all races) but are not shown separately. For operator households, race relates to the farm operator only, and the race of other members of his household is assumed to be the same as that of the farm operator. For the population in other dwelling units on farms—that is, the nonoperator population—race relates to the head of the household.

Operator population. Persons living in the farm operator's household.

Nonoperator population. Persons living in other dwelling units on farms.

Tenure. The tenure classifications are restricted to the farm operator and his rights on the land he operates. The tenure of farm operators is based on replies to inquiries about land owned, land rented from others, land managed for others, and land rented to others. The two classifications used in this report are:

Owners and part owners—those who own all or part of the land they operate; and *tenants and managers*—those who rent from or manage for others all the land they operate.

Value of sales. Value of sales is based on gross income received from the sale of crops, livestock, poultry, livestock and poultry products, horticultural commodities, and miscellaneous agricultural products. All sales data relate to 1 year's farm op-

eration. Crop sales represent the crops produced in the preceding year which have been sold or will be sold even though some sales will occur after the end of the calendar year. Sales of livestock and poultry and their products relate to the calendar year of the sale regardless of when raised or produced. In the June Enumerative Survey, all Government program payments received in the preceding year are included in the value of sales. It is only in this respect that the sales data in this report differ from those obtained in the census of agriculture. Under census procedures, the income from government payments and loans is not included in the value of sales.

Type of farm. The type-of-farm classification represents a description of the major source of income from farm sales. In the June Enumerative Surveys, a farm is classified as a particular type based on the product having the largest percentage of total sales in the reporting year. This is somewhat more liberal than in the census of agriculture where to be classified as a particular type, a farm must have sales of a particular product or group of products amounting in value to 50 percent or more of the total value of all farm products sold during the year.

The type of farms, together with the products on which type classification is based, are described as follows:

<i>Type of farm</i>	<i>Commodity or livestock item</i>
Cash-grain.....	Corn, sorghum, small grains, flax, soybeans for beans, cowpeas for peas, dry edible and seed beans, peas, and rice.
Tobacco	Tobacco.
Cotton	Cotton.
Other field-crop ..	Peanuts, potatoes (Irish and sweet), sugarcane, broomcorn, popcorn, sugar beets, mint, hops, seed crops, hay, silage, and forage.
Vegetable.....	All vegetables and melon crops.
Fruit and nut	Berries, other small fruits, citrus, tree fruits, grapes, and nuts.
Livestock	Cattle, calves, hogs, sheep, goats, wool, and mohair.
Poultry	Chickens, eggs, turkeys, ducks, and other poultry products.

Dairy Milk and cream, plus sales of dairy cattle.
Miscellaneous Nursery and greenhouse products, forest products, mules, horses, bees and honey, and government payments.

Rounding. The individual figures in this report are rounded to the nearest thousand without adjustment to group totals, which are independently rounded. Percentages are rounded to the nearest tenth of a percent; therefore, the percentages in a distribution do not always add to exactly 100 percent.

SOURCE AND RELIABILITY OF THE ESTIMATES

Source of data. Estimates in this report are based on data obtained in the 1970, 1973, and 1975 June Enumerative Surveys (JES) of the former Statistical Reporting Service (SRS), U.S. Department of Agriculture. (SRS is now part of USDA's Economics, Statistics, and Cooperatives Service.)

The JES is conducted annually in the 48 conterminous States and the basic area frame sample includes about 16,300 area segments. The number varies by States according to land area, and importance and diversity of agriculture. The area segments (sampling units) are completely enumerated; they include about 115,000 separate tracts, each represented by a different operator, who is contacted in person for information. In all years, information was obtained from about 24,000 farm households associated with these sample segments.

Reliability of the estimates. Since the estimates are based on a sample, they may differ somewhat from figures that would be obtained if a complete census count had been taken. As in any survey work, the results are subject to error of response and of reporting as well as to sampling variability.

The standard error of estimates, which measures variations that occur by chance because a sample rather than the whole of a population is surveyed, was computed for each population characteristic. All statements of comparison made in the text of this report are statistically significant at a two standard error level. This means that the chances are at least 19 in 20 that a difference identified in the text indicates a difference in the populations that is greater than chance variation arising from the use of samples.

The sample design and the varying sampling rates do not permit a concise generalized table showing approximate order of magnitude of standard error for estimated numbers. The 1975 U.S. farm population total in this report was 8,728,000. The standard error for this estimate was 60,000. The chances are 68 out of 100 that the estimates would differ from a complete census count by less than this amount. The chances are 95 out of 100 that the estimate would differ from a complete census count by less than 120,000 (twice the standard error).

U.S. GOVERNMENT PRINTING OFFICE: 1978-621-954/398-31