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The Farm Entrepreneurial Population, 1987

Margaret A. Butler

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Abstract

About 5.7 million people lived in households tied to the farm business in 1987, compared with 5.0 million in the farm population as conventionally defined by place of residence. The new economically defined group, called the farm entrepreneurial population, includes people who depend on farming but do not necessarily live on the farm. This report analyzes census data on income, education, and other characteristics of the group identified by farm occupation and farm self-employment income criteria.

Keywords: Farm entrepreneurial population, farm operator population, farm-income-only population, demographic characteristics, social characteristics, economic characteristics, households, families

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Summary

About 5.7 million people lived in households tied to the farm business in 1987, compared with 5.0 million in the farm population as conventionally defined by residence. The new economically defined group, called the farm entrepreneurial population, includes people who depend on farming but do not necessarily live on the farm. This report analyzes data from the Census Bureau's March Current Population Survey for 1987 on income, education, and other characteristics of the farm entrepreneurial population.

Since first counted in the 1920 census, the farm population has been defined as people who live on farms or ranches, regardless of occupation or income. Today, some people live on farms but work in nonagricultural occupations, and some people who operate farms or derive income from their farms do not live there. This report quantifies and describes the characteristics of those who have business ties to farming but do not necessarily live on farms.

The farm entrepreneurial population consists of people who live in households in which someone's primary occupation is operating or managing a farm, or in which someone receives income from self-employed farming.

Some details for 1987:

- Most farm people were white males. The median age of the farm entrepreneurial population was 35.9 years, which was older than the national median age.
- Education among farm people varied with age. As in the national population, persons age 45 years and older were not as well educated as those age 25-44.
- The farm population ranked high in labor force participation but lagged behind in income. About 3.3 million farm entrepreneurial people were in the labor force, with an unemployment rate of just 2.8 percent. Over 50 percent of people in the households classified as farm entrepreneurial worked in nonagricultural industries.
- The farm population's social structure was more traditional and homogeneous than the total population. Of the 1.7 million farm entrepreneurial families, 93 percent were married couples. Only 3.7 percent of families were headed by women. Over 56 percent of farm families had no children of their own living at home.
- The median income of farm entrepreneurial families was \$26,558 in 1986, about 10 percent below the national average. The poverty rate for farm families was almost 14 percent, but fewer than 1 percent received welfare benefits. The national poverty rate was 11 percent with 6 percent on welfare. The main sources of income for farm entrepreneurial families were farm self-employment and wages and salaries earned from farm or nonfarm jobs.

The Farm Entrepreneurial Population, 1987

Margaret A. Butler*

Introduction

In March 1987, approximately 5.7 million persons, or 2.4 percent of the total population, lived in households associated with the operation of farms, as indicated by a household member's occupation or source of income. In contrast, an estimated 5 million persons were in the farm population based on the conventional farm residence definition (11).¹

Since first separately counted in the 1920 census, the farm population has been defined as people living on farms or ranches, regardless of occupation or income. At that time, the vast majority of people tied to farming lived on farms. But rural life became more diverse, as agricultural science and technology cut labor requirements, and off-farm job opportunities grew. As a result, people who live on farms today are not necessarily employed in agriculture, and those employed in agriculture often do not live on farms. Thus, the farm residence approach has lost some of its former validity. Alternative criteria for identifying farm-related people and the differences in the criteria used are detailed elsewhere (1).

To provide more complete coverage and a more precise concept, this report identifies the farm population based on farm operator or manager occupation and/or self-employment income from farming. This new category is called the farm entrepreneurial population. Data are presented on the social, economic, and demographic characteristics of the total farm entrepreneurial population and its components for 1987. Data for 1986 also appear where notable differences exist between 1986 and 1987.²

No attempt is made here to identify the population associated with hired farmworkers. Many persons who do hired farmwork have only a tenuous connection with farming based on short-term seasonal work, and are also incompletely identified by occupational survey questions unless the questions relate to an entire year. Such questions were asked in the Agricultural Work Force Survey for 1985, which

estimated the population of hired farmworker households (3). But, the objective here is to define and characterize in its own right the population of farmer households.

Method of Identification

Data used to identify the farm entrepreneurial population in 1986 and 1987 were drawn from the public-use computer files of the March Current Population Survey (CPS), conducted annually by the Bureau of the Census. The household is the unit of observation and consists of all persons who occupy a given housing unit. A house, an apartment, a group of rooms, or a single room are all considered housing units when occupied as separate living quarters.

People who fell into the CPS farm occupation and farm self-employment income categories were combined to form the farm entrepreneurial population analyzed in this report. Definitions of these CPS categories follow:

- **Farm operator population.** The farm operator population is defined as all persons living in households where at least one member is employed primarily as a farm operator or farm manager. A household is also included if at least one unemployed member indicated that his or her last full-time job was farm operator or farm manager. An advantage in using occupation as a criterion is that there is no residence requirement, enabling those who farm but live off-farm to be included. A shortcoming is that, except for the CPS December supplement, which lacks detailed demographic data, employment data refer only to a respondent's primary occupation. Households in which one or more members have only part-time, secondary jobs in farming are missed, unless another member works primarily as a farmer.
- **Farm income population.** Persons in households with at least one member who receives farm self-employment income make up the farm income population. Farm self-employment income is net money income (gross receipts minus operating expenses) from the operation of a farm received by a person on his or her own account, as an owner, renter, or sharecropper. This criterion also has no residency requirement but misses households of people who run incorporated farms.

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¹ Italicized numbers in parentheses refer to sources listed in the References section.

² Tables presented in this report for 1987 are also available for 1986 upon request.

The total farm entrepreneurial population consists of all persons in households identified by either or both of the farm occupation and farm income criteria. The two populations heavily overlap; households often qualify under both criteria. Because most farm operators are self-employed, about 51 percent of the total farm entrepreneurial population is in households with both a farm operator or manager and a farm self-employment income recipient. Thirty-eight percent of the farm entrepreneurial population is in households where one or more persons receive farm self-employment income and no one is primarily employed as a farm operator or farm manager. The remaining 11 percent reside in households with an operator or manager, but no reported farm self-employment income.

It might seem that identifying households with farm self-employment income would also fully identify those containing a farm operator. This is not always the case, however, because new operators would not have had farm self-employment income in the preceding year. In addition, managers are included in the operator class in this report and are not self-employed unless they had some secondary activity on their own account.

This report focuses on characteristics of the entire farm entrepreneurial population. The components of the population are farm operators or farm self-employment income recipients, their families, and their households. Some data are available on characteristics of farm operators and farm income recipients alone (see appendix III).

Regional Distribution

Slightly more than half of all farm residents lived in the South in 1950, and about one-third lived in the Midwest (10). But mechanization of cotton production and the near abandonment of the share-tenant system of farming resulted in heavy movement of people off the farm and a smaller southern share of the farm population total (2).

Table 1—Regional distribution of the farm entrepreneurial population, 1987¹

Region	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total	5,700	3,557	2,143	100.0	100.0	100.0
Northeast	367	265	102	6.4	7.5	4.8
Midwest	2,652	1,743	909	46.5	49.0	42.4
South	1,792	939	853	31.4	26.4	39.8
West	889	611	278	15.6	17.2	13.0

¹Totals may not add due to rounding.

Source: (7).

As measured by the entrepreneurial definition, more than two-fifths of the farm entrepreneurial population lived in the Midwest in 1987 (table 1). The South had the second largest share, with somewhat less than a third of the farm population, although in total population, it was the most populous U.S. region (fig. 1).

Southerners in the farm entrepreneurial population were more likely to receive farm self-employment income without having a farm occupation, compared with their counterparts in other regions. The farm-income-only population in the South totaled 39.8 percent compared with the farm operator population at 26.4 percent. This reflects the more frequent small-scale nature of southern farming and the greater reliance on off-farm work as the chief source of employment.

Racial and Ethnic Characteristics

Few minorities operated farms in the United States. Only 1 percent of the farm entrepreneurial population was black, and 1.9 percent was of Hispanic origin (table 2). Most minorities in agriculture were hired farm wage and salary workers.

Sex and Age

Males outnumbered females in the farm entrepreneurial population, with 113 males for every 100 females, compared with about 94 males per 100 females in the total U.S. population (7). The sex ratio was even higher in the farm operator population, where there were 119 males per 100 females.

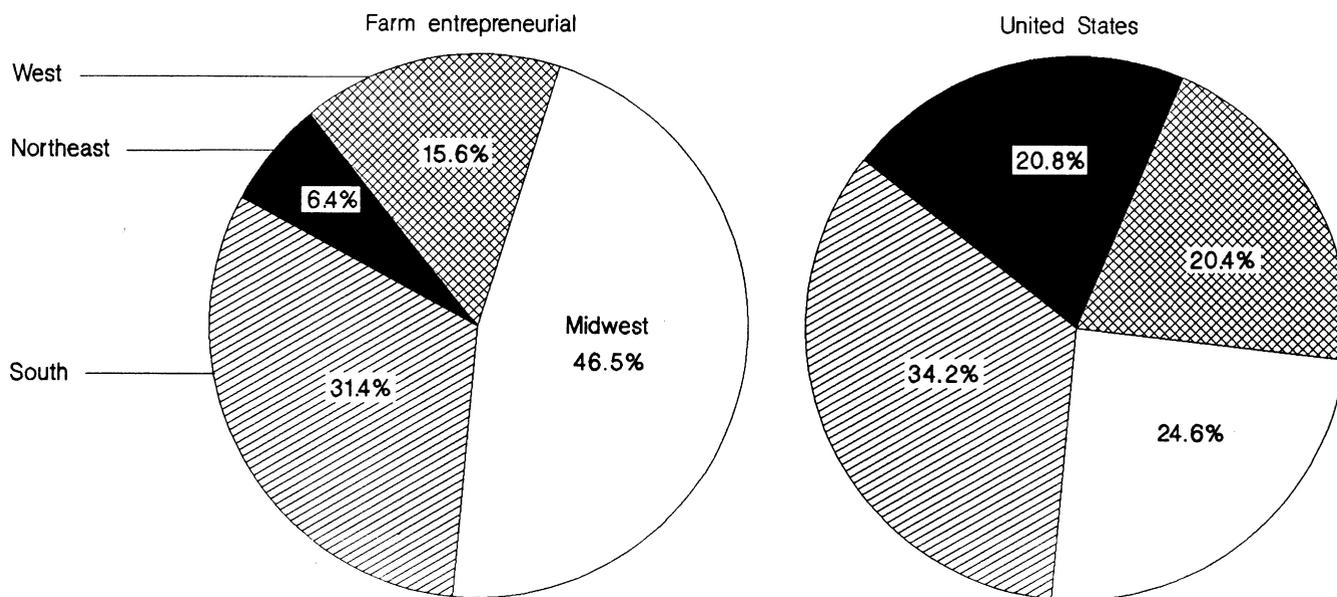
The farm entrepreneurial population was older than the population nationwide. The median age of the farm entrepreneurial population was 35.9 years in 1987 (table 2), compared with a median for the total population of 32.0 years (7).

The historic movement of young adults off farms has significantly altered the age structure of farm people. Persons of prime working age (25-44 years old) constituted only 26.5 percent of the farm entrepreneurial population in 1987. In contrast, 32 percent of the total U.S. population was in this age group (fig. 2). The drop in the number of farms brought about by productivity gains and the initial capital investment needed for modern farming have slowed the entry of young people into farming. There were 3.4 million farms in 1965. By 1987, the number of farms had fallen to 2.2 million (6).

Young people have left farms, leaving an older but still economically active group in the farm entrepreneurial population. The older group (45-64 years old) constituted a much higher share of the work force in the farm population

Figure 1

Regional distribution of the population, 1987



Source: (7).

Table 2—Characteristics of the farm entrepreneurial population, 1987¹

Characteristic	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total	5,700	3,557	2,143	100.0	100.0	100.0
Male	3,023	1,936	1,087	53.0	54.4	50.7
Female	2,677	1,621	1,056	47.0	45.6	49.3
Race: ²						
White	5,576	3,514	2,062	97.8	98.8	96.2
Black	59	16	43	1.0	.4	2.0
Hispanic origin ³	111	86	25	1.9	2.4	1.2
Age:						
Under 18 years	1,472	890	582	25.8	25.0	27.2
18-64 years	3,734	2,318	1,416	65.5	65.2	66.1
18-24 years	587	385	202	10.3	10.8	9.4
25-34 years	723	482	241	12.7	13.6	11.2
35-44 years	786	474	312	13.8	13.3	14.6
45-54 years	792	442	350	13.9	12.4	16.3
55-64 years	847	537	310	14.9	15.1	14.5
65 years and over	495	349	146	8.7	9.8	6.8
Median age	35.9	35.5	36.5	—	—	—

— = Not applicable.

¹Totals may not add due to rounding.

²Does not include category "other races."

³Persons of Hispanic origin may be of any race.

Source: (7).

than in the total population (28.8 percent versus 18.8 percent). Retirement age people, those 65 years and older, accounted for only 8.7 percent of the farm entrepreneurial population and 11.7 percent of the total population. This lower representation of retirement age people in the farm population is forced partly by the employment-oriented definition used in this report. To be counted among the farm entrepreneurs, a person needed current or recent employment as a farm operator or manager, or farm self-employment income.

Education

Farm people were just as well educated as the general population. Of the farm entrepreneurial population age 25 years and older, 32 percent had attended college (table 3). An additional 46 percent had completed high school only. In comparison, 37 percent of the U.S. population had attended college and an additional 39 percent had completed high school. A further age breakdown indicates that the younger farm entrepreneurial population (25-44 years old) and those age 45 years and older were both more likely than their U.S. counterparts to have completed high school and were just as likely to have attended at least 1 year of college (fig. 3).

Younger farm people were better educated than their elders. Although this is true for the population as a whole, the dif-

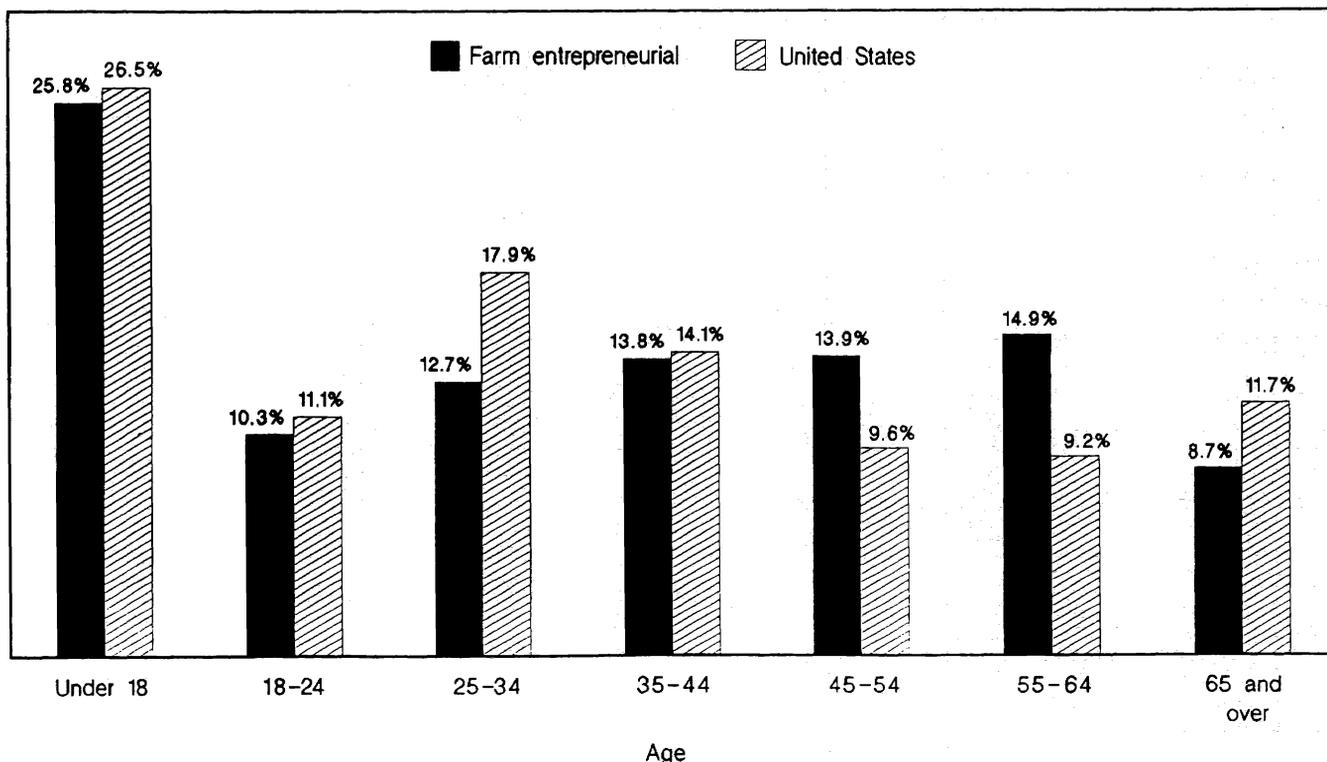
ference was stronger for the farm population. Nine percent of the farm entrepreneurial population age 25-44 had not completed high school. In contrast, 30 percent of those age 45 years and older were not high school graduates. Not long ago, more human labor was required to operate the family farm and children often left school at an early age to work the farms.

Advanced study has become common in the younger farm population. Nearly 45 percent of the farm entrepreneurial population age 25-44 had attended college for at least 1 year, but only 25 percent of those age 45 years and older had some college education. With advancement in technology and sciences, farming has become more of a business and the need for higher levels of education is greater now. But some of the higher education may be used in nonfarm jobs. The farm-income-only population, the subgroup most commonly working outside farming, shows the highest education within the farm population.

Labor Force Participation

Seventy-five percent of the farm entrepreneurial population age 16 years and older was in the labor force in 1987 (table 4). The labor force participation rate for males (88.4 percent) was significantly higher than that for females (59.6 percent). Among men, farm operators were more likely to

Figure 2
Age distribution of the population, 1987



Source: (7).

participate in the labor force than those with farm-income-only.

Agricultural vs. Nonagricultural Employment

As expected, employment of the farm operator population was overwhelmingly concentrated in agriculture. But farm-income-only persons were more likely to work in nonagri-

cultural industries (fig. 4). About 86 percent of males in the farm operator labor force were employed in agriculture versus only 4 percent of males in the farm-income-only labor force. Only 34 percent of the females in the farm operator population worked in agriculture. By definition, each household in the farm operator population had at least one member with a farming occupation. Therefore, the farm

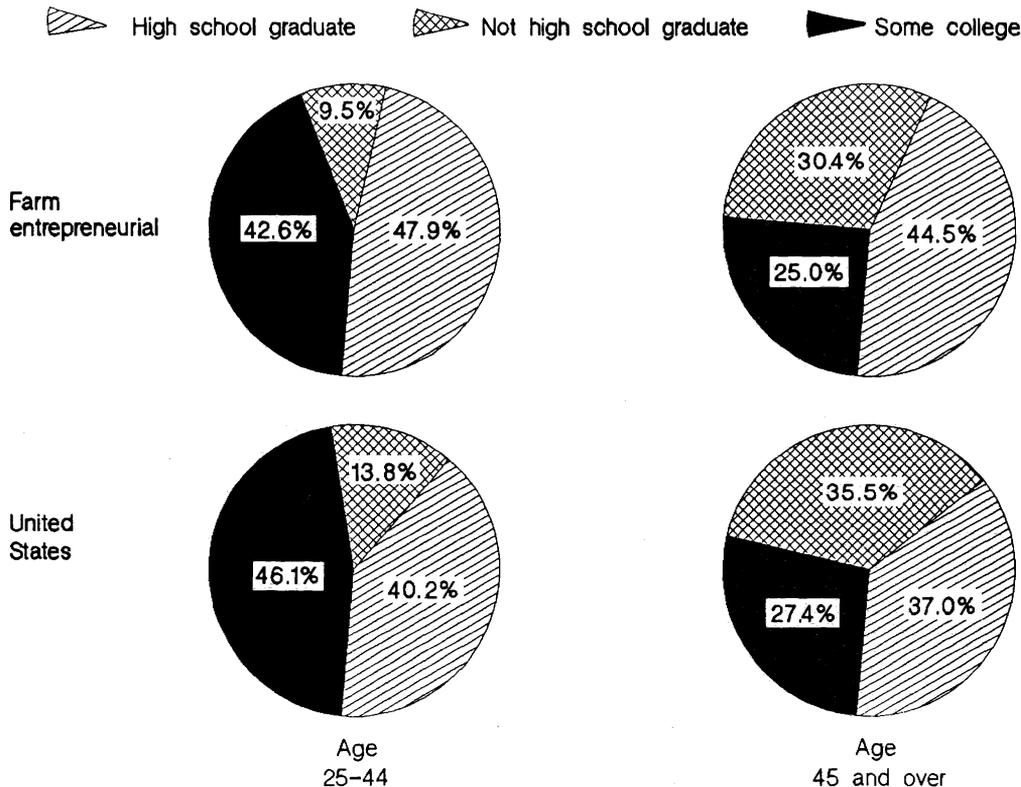
Table 3—Education of the farm entrepreneurial population age 25 years and over, 1987¹

Education level	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total	3,641	2,284	1,357	100.0	100.0	100.0
Not high school graduate	793	528	265	21.8	23.1	19.5
High school graduate	1,673	1,082	591	45.9	47.4	43.6
Some college	1,176	673	503	32.3	29.5	37.1
Persons age 25-44	1,508	954	554	100.0	100.0	100.0
Not high school graduate	143	97	46	9.5	10.2	8.3
High school graduate	723	483	240	47.9	50.6	43.3
Some college	642	375	267	42.6	39.3	48.2
Persons age 45 and over	2,133	1,328	805	100.0	100.0	100.0
Not high school graduate	649	431	218	30.4	32.5	27.1
High school graduate	949	599	350	44.5	45.1	43.5
Some college	534	298	236	25.0	22.4	29.3

¹Totals may not add due to rounding.

Source: (7).

Figure 3
Educational level of persons age 25 and over, 1987



Totals may not add to 100 due to rounding.
Source: (7).

operator population would have a higher representation in agriculture than the farm-income-only population, which includes many people with only secondary work in farming.

Nonagricultural Industries

Farm entrepreneurial persons in nonagricultural industries worked primarily in professional and related services, trade, and manufacturing industries (table 5). Women were far more likely than men to be employed in professional and related services (40.5 percent versus 15.5 percent, respectively). Trade was the leading industry for men.

Nonagricultural Occupations

The occupational distribution of farm entrepreneurial persons who had a nonfarm residence and were employed outside agriculture shows that 64 percent held white-collar jobs, 24 percent were in blue-collar occupations, and only 12 percent were in service occupations (7).³ In contrast, 58 percent of the total labor force worked in white-collar occupations. People in the total labor force were just as likely as the farm

entrepreneurial labor force to be employed in blue-collar and service occupations.

Unemployment

The rate of unemployment was relatively low among farm people compared with the total population. Only 2.8 percent of the farm entrepreneurial labor force was unemployed (table 4), while unemployment for the total population was 7.0 percent.

Men and women in the farm entrepreneurial labor force had similar unemployment rates. At the national level, more men than women were unemployed (7.4 percent versus 6.6 percent, respectively).

Unemployment was higher in the farm-income-only population than in the farm operator population. This was true for both men and women.

Household and Family Structure

Two percent of U.S. households were classified as farm entrepreneurial households. Farm households generally fit traditional family patterns, although because of a lower

³ White-collar occupations include managerial, professional, technical, sales, and administrative support. Blue-collar occupations include precision production, craft, repair, operators, fabricators, and laborers.

Table 4—Labor force participation of the farm entrepreneurial population age 16 years and over, 1987¹

Labor force status	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total	4,451	2,793	1,658	100.0	100.0	100.0
In labor force	3,333	2,169	1,164	74.9	77.7	70.2
Not in labor force	1,118	624	494	25.1	22.3	29.8
In labor force	3,333	2,169	1,164	100.0	100.0	100.0
Employed	3,240	2,122	1,118	97.2	97.8	96.0
Agriculture	1,527	1,480	47	45.8	68.2	4.0
Nonagriculture	1,713	642	1,071	51.4	29.6	92.0
Unemployed	93	47	46	2.8	2.2	4.0
Males	2,365	1,521	844	100.0	100.0	100.0
In labor force	2,090	1,413	677	88.4	92.9	80.2
Not in labor force	275	108	167	11.6	7.1	19.8
In labor force	2,090	1,413	677	100.0	100.0	100.0
Employed	2,030	1,382	648	97.1	97.8	95.7
Agriculture	1,248	1,221	27	59.7	86.4	4.0
Nonagriculture	782	161	621	37.4	11.4	91.7
Unemployed	60	30	30	2.9	2.1	4.4
Females	2,086	1,272	814	100.0	100.0	100.0
In labor force	1,243	756	487	59.6	59.4	59.8
Not in labor force	843	516	327	40.4	40.6	40.2
In labor force	1,243	756	487	100.0	100.0	100.0
Employed	1,210	739	471	97.3	97.8	96.7
Agriculture	278	259	19	22.4	34.3	3.9
Nonagriculture	932	480	452	75.0	63.5	92.8
Unemployed	33	17	16	2.7	2.2	3.3

¹Totals may not add due to rounding.

Source: (7).

proportion of adults under age 35, they had fewer young children at home.

Farm Entrepreneurial Households

An average of 3.07 persons lived in each farm entrepreneurial household in 1987 (table 6). This was small by historic standards for farm households, but farm households remained somewhat larger than the national average of 2.7 persons (8).

Farm households numbered almost 1.9 million, accounting for about 2.1 percent of all U.S. households (table 6). Farm entrepreneurial households were more likely than households in general to be classified as family households.

Nonfamily households accounted for 10 percent of all farm entrepreneurial households compared with 28 percent of all U.S. households.

Farm Entrepreneurial Families

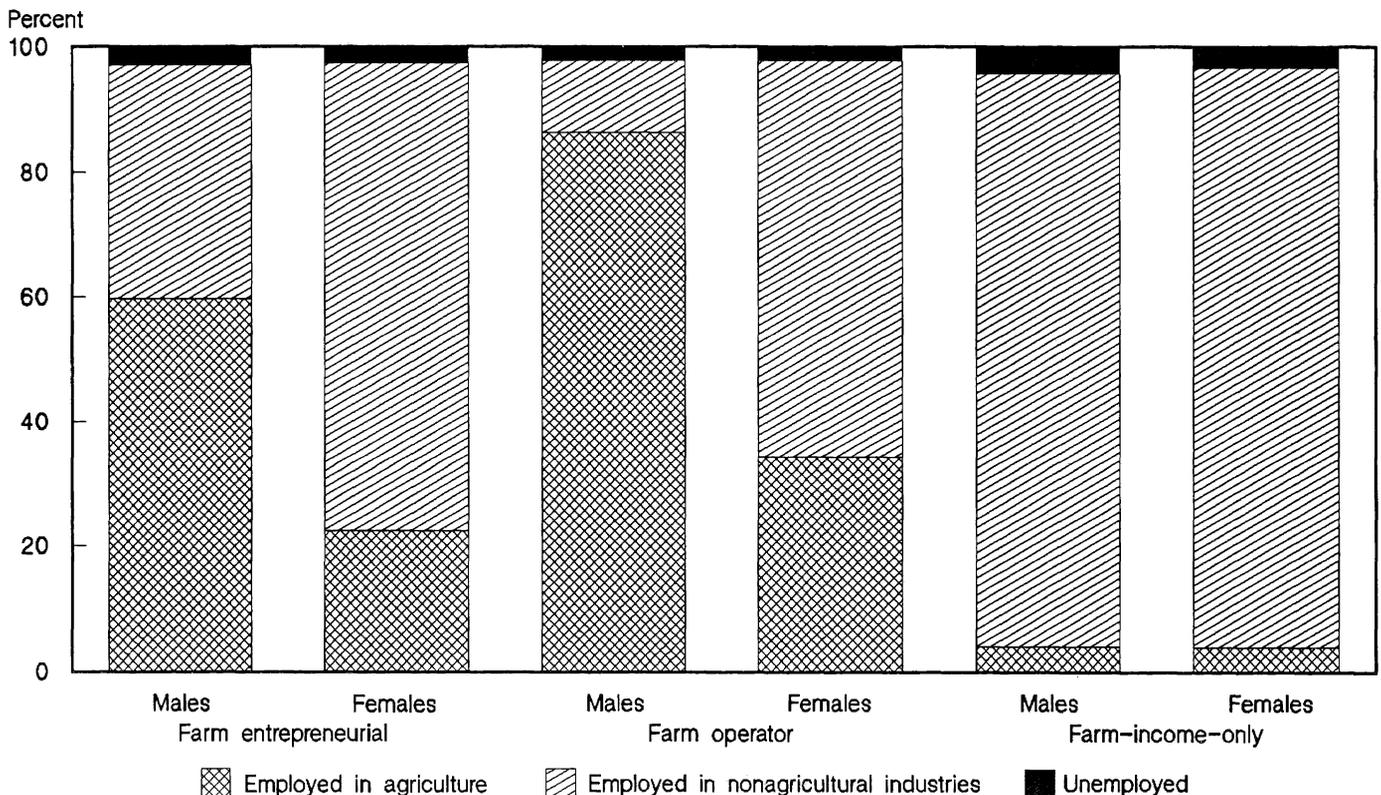
Of the approximately 64.5 million U.S. families in 1987, farm entrepreneurial families accounted for 2.7 percent (8). The average size of farm entrepreneurial families (3.41 persons) did not differ significantly from that of all families (3.19 persons) (table 7) (8).

The married-couple family remains the dominant household type in the United States, despite substantial increases in other family types during the 1980's. The structure of farm families seems to be even more stable and traditional than that of U.S. families overall (fig. 5). Married-couple families accounted for 93 percent of farm entrepreneurial families in 1987 (table 7); 80 percent of U.S. families were married couples (8). Females headed 3.7 percent of farm families and 16.2 percent of all U.S. families.

Despite the predominance of married-couple families, children were scarce among the farm population. This is consistent with its older age structure. Fifty-six percent of all farm entrepreneurial families had no children of their own under 18 years of age living at home (table 7). Of the farm families that had one or more of their own children, more than half had only older children (age 6-17 years). Just 22 percent of farm entrepreneurial families had only preschool age children.

Families in the general population are more likely to have children. Fifty percent of all U.S. families had children under 18 years of age (8). Among U.S. families with children, the proportion of children in the two age groups, school-age and younger, was about the same as for those in farm families.

Figure 4
Employment status of the farm entrepreneurial labor force, 1987



Source: (7).

Household and Family Income

Income of farm entrepreneurial families lagged behind the rest of the Nation. Farm families and households differed from those in the general population in the amount and source of income received. Income data are shown separately for households and families.

Household Income

Household income includes the income of all related persons plus the income of any unrelated persons in the household. In the CPS, income data show gross money income received before payments of Federal, State, local, or Social Security (FICA) taxes and before deductions, such as union dues or Medicare premiums.

The median income for farm entrepreneurial households was \$25,605 in 1986 (table 8). No significant difference was found between the median income of farm households and that of \$24,897 for all U.S. households (9).

However, median income was not evenly divided between farm household subgroups. The median income of farm operator households (\$21,024) was far lower than that of farm-income-only households (\$34,344). Thus, the households with at least one person working solely or primarily as a farm operator or manager in 1987 did not fare nearly as well in 1986 income as those households with some farm income but no primary occupational commitment to the farm business. This was true despite the fact that 1986 was by far the best year for farm income since 1979 (5).

Table 5—Employment in nonagricultural industries of the farm entrepreneurial population age 16 years and over, 1987¹

Nonagricultural industries	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total	1,713	642	1,071	100.0	100.0	100.0
Forestry and fisheries	7	5	2	.4	.8	.2
Mining and construction	119	33	86	6.9	5.1	8.0
Manufacturing	265	86	179	15.5	13.4	16.7
Transportation, communications, and other public utilities	94	25	69	5.5	3.9	6.4
Trade	345	120	225	20.1	18.7	21.0
Finance, insurance, and real estate	122	53	69	7.1	8.3	6.4
Professional and related services	498	239	259	29.1	37.2	24.2
All other services	168	55	113	9.8	8.6	10.6
Public administration	96	27	69	5.6	4.2	6.4
Males	782	161	621	100.0	100.0	100.0
Forestry and fisheries	5	5	0	.6	3.1	0
Mining and construction	107	28	79	13.7	17.4	12.7
Manufacturing	169	31	138	21.6	19.3	22.2
Transportation, communications, and other public utilities	59	11	48	7.5	6.8	7.7
Trade	175	32	143	22.4	19.9	23.0
Finance, insurance, and real estate	42	8	34	5.4	5.0	5.5
Professional and related services	121	35	86	15.5	21.7	13.8
All other services	49	7	42	6.3	4.3	6.8
Public administration	55	5	50	7.0	3.1	8.1
Females	932	480	452	100.0	100.0	100.0
Forestry and fisheries	1	0	1	.1	0	.2
Mining and construction	12	5	7	1.3	1.0	1.5
Manufacturing	96	54	42	10.3	11.3	9.3
Transportation, communications, and other public utilities	35	15	20	3.8	3.1	4.4
Trade	170	88	82	18.2	18.3	18.1
Finance, insurance, and real estate	80	45	35	8.6	9.4	7.7
Professional and related services	377	204	173	40.5	42.5	38.3
All other services	119	48	71	12.8	10.0	15.7
Public administration	41	22	19	4.4	4.6	4.2

¹Totals may not add due to rounding.

Source: (7).

Family Income

As a group, farm families had lower income than families in general. The median income of farm entrepreneurial families was \$26,558 in 1986, about 10 percent below the median of \$29,410 for families nationwide (table 9) (7).

Farm families were just as likely as families nationwide to be in the middle income category (fig. 6). However, a larger proportion of farm families (6.9 percent) than families nationwide (4.6 percent) reported income of less than \$5,000. Farm families were also underrepresented in the \$40,000 and over income groups. About 27 percent of farm entrepreneurial families and 33 percent of U.S. families reported income of \$40,000 or more. However, these statistics mask wide variation within the farm population.

The median income for farm-income-only families was significantly higher than that for both farm operator families and families nationwide. Farm operator families were more likely than farm-income-only families to be in the lower income categories (fig. 7). Only one-fourth of farm operator families reported income of \$35,000 or more versus one-half of farm-income-only families.

The early and mid-1980's were years of heavy financial stress among U.S. farmers. In 1986, 21 percent of all farm entrepreneurial families who received farm self-employment income reported a net loss from farming. This was an improvement over 1985, when 28 percent had a net loss due to farming. Most farmers by 1986 earned enough to meet prin-

cipal and interest payments, reduce debt outstanding, and meet other financial commitments (4). But continued foreclosures and debt restructuring by lenders showed that not all farmers shared equally in the recovery.

However, a loss from farming was not necessarily a reflection of the overall socioeconomic well-being of farm

Table 6—Farm entrepreneurial households by type and size, 1987¹

Type and size	Farm operator income only			Farm operator income only		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Thousands.....		Percent.....		
Total households	1,856	1,152	704	100.0	100.0	100.0
Family households	1,671	1,033	638	90.0	89.7	90.6
Nonfamily households	185	119	66	10.0	10.3	9.4
Number of persons in households:						
One	161	99	62	8.7	8.6	8.8
Two	656	414	242	35.3	35.9	34.4
Three	390	231	159	21.0	20.1	22.6
Four	372	242	130	20.0	21.0	18.5
Five or more	276	166	110	14.9	14.4	15.6
	<i>Number</i>					
Average number of persons per household	3.07	3.09	3.04	—	—	—

— = Not applicable.

¹Totals may not add due to rounding.

Source: (7).

Table 7—Characteristics of farm entrepreneurial families, 1987¹

Characteristic	Farm operator income only			Farm operator income only		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Thousands.....		Percent.....		
Total families	1,671	1,033	638	100.0	100.0	100.0
Married-couple family	1,560	969	591	93.4	93.8	92.6
Other, male householder	49	34	15	2.9	3.3	2.4
Other, female householder	62	30	32	3.7	2.9	5.0
Own children under 18 years:						
None	937	603	334	56.1	58.4	52.4
One or more	733	430	303	43.9	41.6	47.5
One or more own children	733	430	303	100.0	100.0	100.0
All under 6 years	159	100	59	21.7	23.3	19.5
Some under 6 years, some 6-17 years	150	91	59	20.5	21.2	19.5
All 6-17 years	424	239	185	57.8	55.6	61.1
Number of persons in families:						
Two	656	409	247	39.3	39.6	38.7
Three	388	228	160	23.2	22.1	25.1
Four	361	235	126	21.6	22.7	19.7
Five or more	266	160	106	15.9	15.5	16.6
	<i>Number</i>					
Average number of persons in families	3.41	3.44	3.36	—	—	—

— = Not applicable.

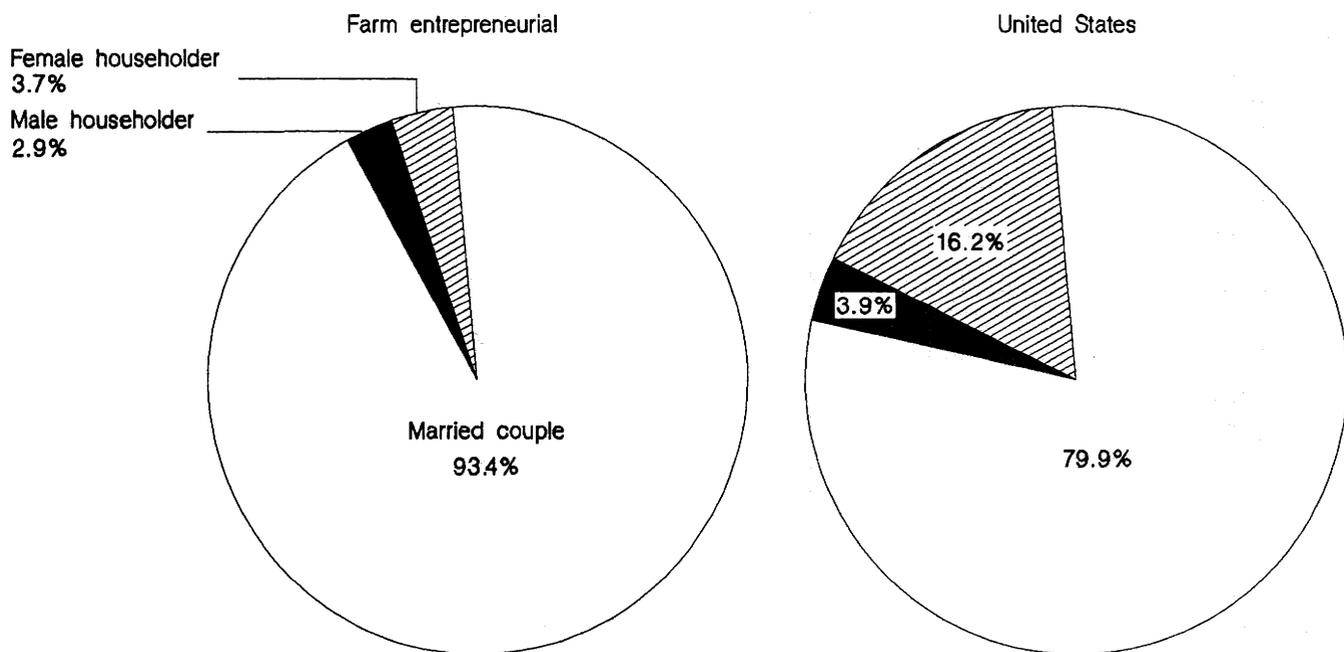
¹Totals may not add due to rounding.

Source: (7).

families. Income from other sources helped compensate for losses in agriculture. The percentage of farm families who lost money from all income sources did not change sig-

nificantly between 1985 and 1986. Total income was negative for 3.5 percent of farm entrepreneurial families in 1986 versus 5.1 percent in 1985 (table 9) (7).

Figure 5
Family households by type, 1987



Source: (7).

Table 8—Income of farm entrepreneurial households, 1986¹

Household income	Farm entrepreneurial households			United States		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Thousands.....		Percent.....		
Total households	1,856	1,152	704	100.0	100.0	100.0
Household income:						
Loss	77	70	7	4.1	6.1	1.0
\$1-\$2,499	34	29	5	1.8	2.5	.7
\$2,500-\$7,499	116	90	26	6.3	7.8	3.7
\$7,500-\$9,999	69	52	17	3.7	4.5	2.4
\$10,000-\$14,999	200	159	41	10.8	13.8	5.8
\$15,000-\$19,999	222	151	71	12.0	13.1	10.1
\$20,000-\$24,999	191	122	69	10.3	10.6	9.8
\$25,000-\$29,999	157	94	63	8.5	8.2	8.9
\$30,000-\$39,999	300	178	122	16.2	15.5	17.3
\$40,000-\$49,999	176	75	101	9.5	6.5	14.3
\$50,000 and over	314	133	181	16.9	11.5	25.7
				<i>Dollars</i>		
Median household income	25,605	21,024	34,344	—	—	—

— = Not applicable.

¹Totals may not add due to rounding.

Source: (7).

Table 9—Income and poverty among farm entrepreneurial families, 1986¹

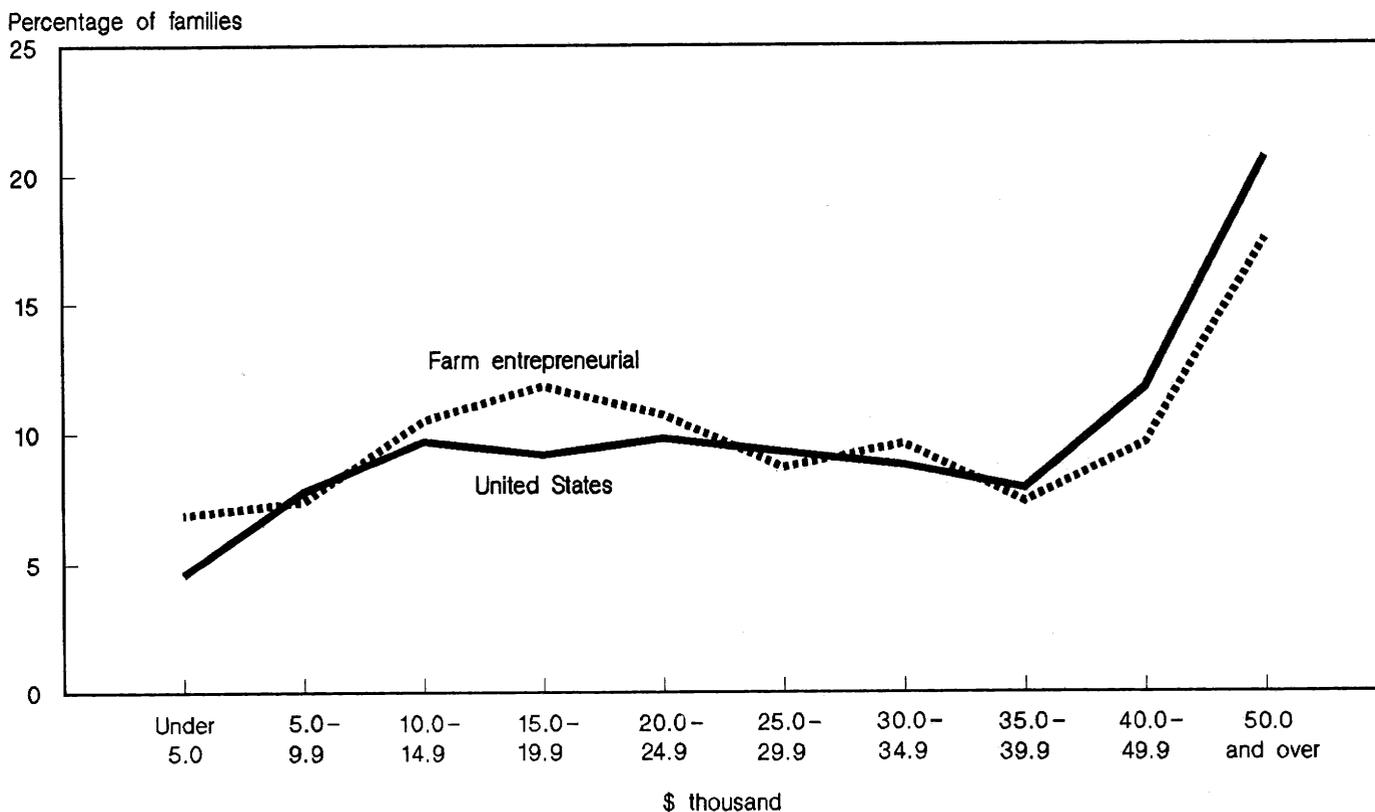
Income and poverty	Thousands			Percent		
	Total	Farm operator	Farm income only	Total	Farm operator	Farm income only
Total families	1,671	1,033	638	100.0	100.0	100.0
Family income:						
Loss	58	51	7	3.5	4.9	1.1
\$1-\$2,499	24	19	5	1.4	1.8	.8
\$2,500-\$4,999	34	29	5	2.0	2.8	.8
\$5,000-\$7,499	61	49	12	3.7	4.7	1.9
\$7,500-\$9,999	62	49	13	3.7	4.7	2.0
\$10,000-\$14,999	176	141	35	10.5	13.6	5.5
\$15,000-\$19,999	197	134	63	11.8	13.0	9.9
\$20,000-\$24,999	178	118	60	10.7	11.4	9.4
\$25,000-\$29,999	146	88	58	8.7	8.5	9.1
\$30,000-\$34,999	160	96	64	9.6	9.3	10.0
\$35,000-\$39,999	123	69	54	7.4	6.7	8.5
\$40,000-\$49,999	160	66	94	9.6	6.4	14.7
\$50,000 and over	292	124	168	17.5	12.0	26.3
Below poverty level	229	195	34	13.7	18.9	5.3
				<i>Dollars</i>		
Median family income	26,558	21,885	34,765	—	—	—

— = Not applicable.

¹Totals may not add due to rounding.

Source: (7).

**Figure 6
Income distribution of U.S. families and farm entrepreneurial families, 1986**



Source: (7).

Poverty

Poverty thresholds are based solely on money income and vary by family size. The average poverty threshold for a family of four was \$11,203 for income received in 1986 and \$10,989 in 1985 (9). Farm entrepreneurial families were somewhat more likely than all U.S. families to live in poverty. In 1986, almost 14 percent of farm families had incomes below the poverty level, compared with approximately 11 percent of families nationwide (table 9) (9).

Although the 1986 poverty rate for farm families was high, it was significantly lower than their 1985 rate (18 percent). The 1985 rate for families nationwide was slightly more than 11 percent (9).

Poverty was more prevalent among farm operator than farm-income-only families in both 1985 and 1986 (fig. 8). One out of every 4 farm operator families and only 1 out of every 20 farm-income-only families were below the poverty level in 1985. The poverty rate for farm operator families had declined significantly by 1986, but the rate for farm-income-only families did not change significantly between 1985 and 1986.

Sources of Income

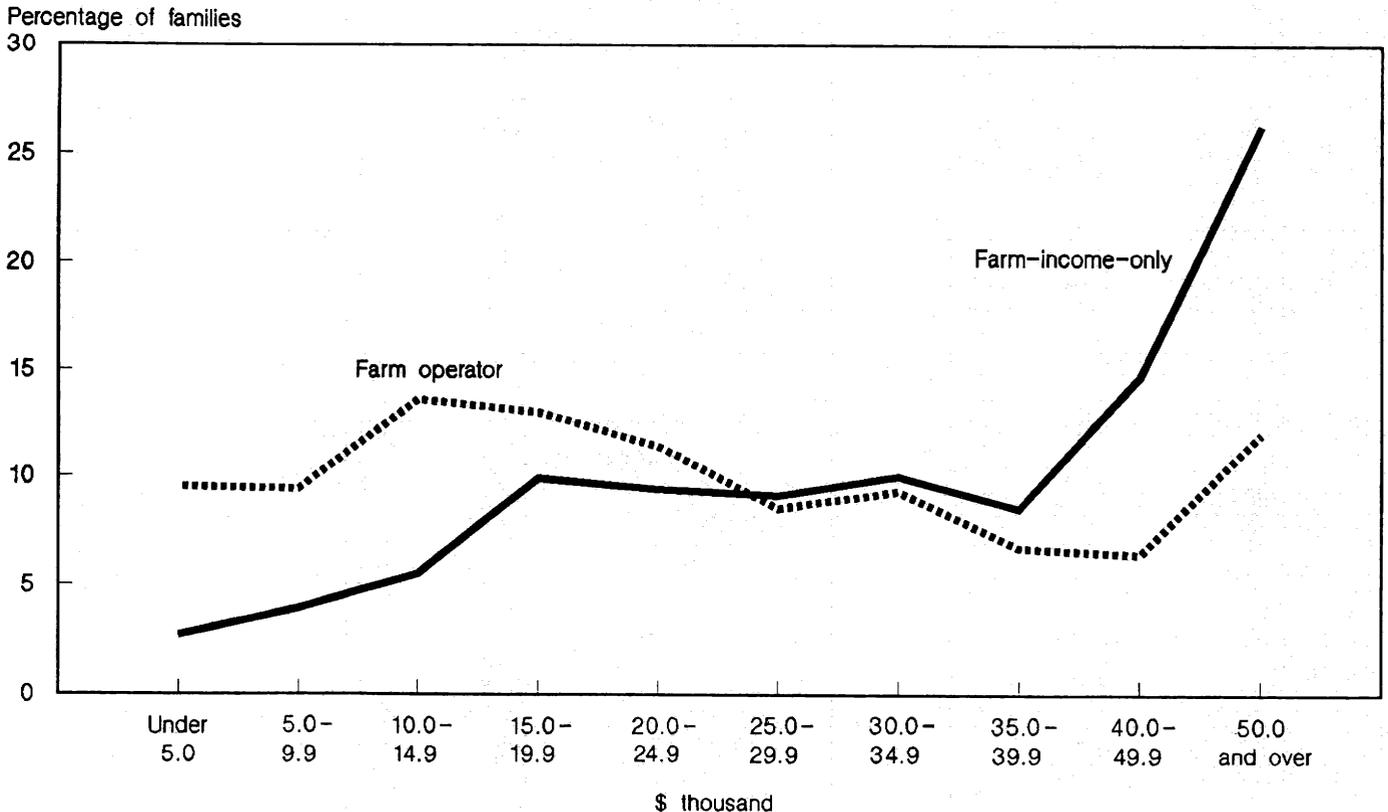
Farm entrepreneurial families received income from various sources, but as expected, most families (88 percent) received farm self-employment income (or loss) in 1986 (table 10). About 20 percent of farm operator families reported no farm self-employment income. Families without farm self-employment income could be families with farm managers or new operators. Almost 28 percent of the total income of farm operator families came from farming compared with less than 8 percent for farm-income-only families (7).

Wage and salary income was the most frequently reported income source, after farm self-employment income, for farm entrepreneurial families. Wage and salary income was also the main source of income for families nationwide. In 1986, 78 percent of farm families and 82 percent of families nationwide received wage and salary income (8). Nine out of 10 farm-income-only families versus 7 out of 10 farm operator families reported wage and salary as a source of income.

Interest, the third most frequently reported income source, is widely received by farm entrepreneurial families. Farm

Figure 7

Income distribution of farm operator and farm-income-only families, 1986



Source: (7).

families were more likely than families nationwide to have savings or investments that earned interest. About three-fourths of farm families and two-thirds of U.S. families reported income from interest in 1986 (table 10) (8). A third of the farm families received other property income, such as dividends and rents. This, too, is a larger proportion than found among U.S. families as a whole. The higher likelihood of farm entrepreneurial families to earn rental income, which is included in the dividend category, may partially explain the difference in receipt of dividends (1).

Some farm families received income from public assistance, unemployment compensation, and retirement programs, but these were exceptions. This report classified people as members of the farm population if they had farm-related jobs or farm self-employment income. Thus, few people in farm entrepreneurial families would be expected to receive these kinds of payments, which go to people who are not working.

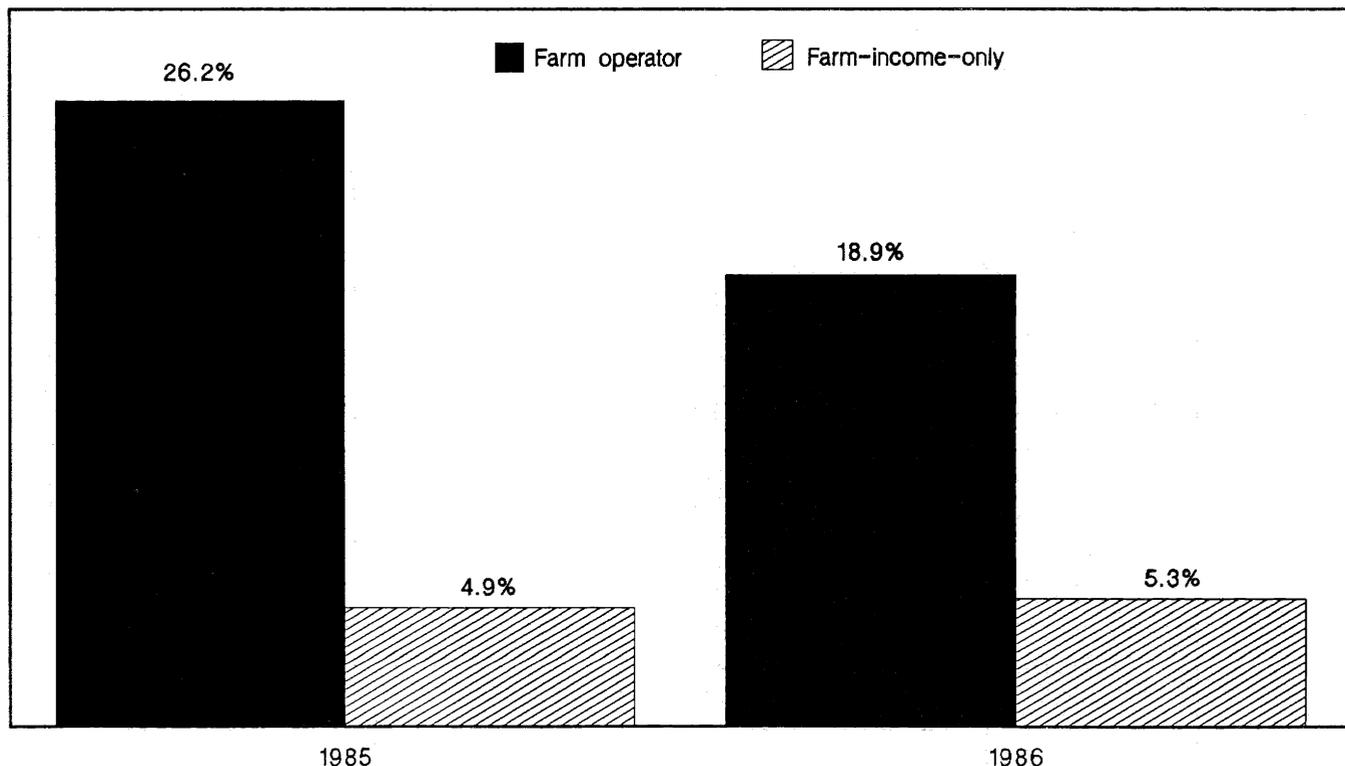
Welfare benefits ranked at the bottom of the list of income sources for farm entrepreneurial families. Less than 1 percent of farm families received public assistance compared with almost 6 percent of families nationwide (8). One reason for this difference is that farm families tend to have more assets than families nationwide. Another explanation is that the farm population has far fewer female-headed

families with minor children. Thus, a smaller proportion of farm families qualify for assistance.

People in farm entrepreneurial families may have received other types of benefits less often than families in the general population because they chose not to participate. Wage and salary workers and/or their employers are required to enroll in unemployment compensation and retirement benefit programs. But the self-employed have an option not to enroll. The higher proportion of self-employed persons in farm entrepreneurial families explains part of the difference in the rate at which farm families receive these benefits compared with the rate for families nationwide. Eight percent of farm entrepreneurial families, and 14 percent of all families, received unemployment compensation, veterans payments, and workers' compensation in 1986 (8). Farm families were also less likely to collect retirement income (10.6 percent versus 14.4 percent).

Income sources differed between the two subgroups in the farm population. Farm operator families were less likely than farm-income-only families to get interest, dividends, or rent. This was consistent with the lower median income for farm operators/managers. And, the operator families were more likely to receive Social Security payments, an indication of their older average age.

Figure 8
Poverty among farm operator and farm-income-only families, 1985 and 1986



Source: (7).

Conclusions

The use of farm occupation and farm self-employment income as criteria for identifying farm people emphasizes farming as a business rather than a place of residence. The business emphasis of our farm population definition is noticeable in some of the demographic and socioeconomic characteristics of the farm entrepreneurial population:

- Males outnumbered females, particularly in the farm operator population, where someone had to be actively working in the occupation.
- Education has improved for younger persons. The proportion of the population age 25-44 who have completed high school is significantly higher than for those age 45 years and older. Modern technology has increased the need for more education.
- Unemployment was low for both males and females. Self-employed persons are still considered employed even when profits are low or negative.

Table 10—Source of income of farm entrepreneurial families, 1986

Source of income	Total	Farm operator	Farm income only
		<i>Thousands</i>	
Total families	1,671	1,033	638
		<i>Percent</i>	
Percentage of families receiving:			
Wage and salary income	77.6	70.5	89.2
Nonfarm self-employment income	18.2	14.4	24.5
Farm self-employment income	87.7	80.4	100.0
Interest	73.7	70.7	78.6
Dividends ¹	35.5	32.0	41.1
Social security and railroad retirement income	22.7	26.0	17.4
Supplemental security income ²	1.3	1.5	.8
Public assistance and welfare ³	.6	.7	.4
Unemployment compensation, veterans payments, and workers' compensation	8.4	7.5	10.0
Retirement ⁴	10.6	9.9	11.6
Alimony and child support ⁵	11.0	9.0	14.3

¹Includes dividends, net income from estates or trusts, net rental income, or royalties.

²Includes payments made by Federal, State, and local welfare agencies to low-income persons who are aged (65 years old and over), blind, or disabled.

³Includes Aid to Families with Dependent Children and general assistance.

⁴Includes private pensions and annuities, military retirement, and Federal, State, or local government pensions.

⁵Includes other regular contributions from persons not in the household.

Source: (7).

Farm entrepreneurial families were distinctive in several ways when compared with families at the national level. They were more traditional in the sense that they had a significantly higher proportion of married-couple families. Although farm families had lower income and higher poverty rates, they also were more self-reliant. Only a very small proportion reported public assistance and welfare as a source of income. More than three-fourths of farm families received income from farm self-employment as well as wage and salary income.

Although farming can still be considered a lifestyle, people who make their living by farming must have appropriate skills for the farm business. Technological change means that farmers need advanced skills to be competitive. The people responding to these advanced requirements sufficiently to maintain their farms should be measured as the unique group they are.

This report is the first of an annual series that will monitor farm people using farm occupation and farm self-employment income criteria.

References

1. Banks, Vera J., Margaret A. Butler, and Judith Z. Kalbacher. *Alternative Definitions of Farm People*. AGES 89-9. U.S. Dept. Agr., Econ. Res. Serv., Mar. 1989.
2. _____, and Judith Z. Kalbacher. *Farm Income Recipients and Their Families: A Socioeconomic Profile*. RDRR-30. U.S. Dept. Agr., Econ. Res. Serv., Sept. 1981.
3. Cox, E. Jane, and Victor J. Oliveira. *Agricultural Work Force Households: How Much Do They Depend on Farming?* AIB-547. U.S. Dept. Agr., Econ. Res. Serv., July 1988.
4. U.S. Department of Agriculture, Economic Research Service. *Financial Characteristics of U.S. Farms, January 1, 1987*. AIB-525. Aug. 1987.
5. _____, National Agricultural Statistics Service. *Agricultural Statistics, 1987*.
6. _____, National Agricultural Statistics Service. *Crop Production*. CrPr2-2. Aug. 1987 and earlier years.
7. U.S. Department of Commerce, Bureau of the Census. *March 1986 and 1987 Current Population Survey*. Unpublished tabulations developed by the U.S. Dept. Agr., Econ. Res. Serv.
8. _____, Bureau of the Census. "Household and Family Characteristics: March 1987," *Current Population Reports, Series P-20, No. 424, May 1988*.

9. _____, Bureau of the Census. "Money Income and Poverty Status of Families and Persons in the United States, 1986," *Current Population Reports* (advanced report), Series P-60, No. 157, July 1987.

10. _____, Bureau of the Census, and U.S. Department of Agriculture, Economic Research Service. "Farm Population of the United States: 1986," *Current Population Reports*, Series P-27, No. 60, Nov. 1987.

11. _____, Bureau of the Census, and U.S. Department of Agriculture, Economic Research Service. "Rural and Rural Farm Population: 1987," *Current Population Reports*, Series P-27, No. 61, June 1988.

Appendix I: Definitions and Explanations

Population coverage. Estimates in this report are based on data tabulated from the March 1986 and 1987 Current Population Survey (CPS) of the Bureau of the Census. They relate to the civilian noninstitutional population of the United States and members of the armed forces living off post or with their families on post.

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. Data for "other races" are not shown in this report.

Hispanic origin. Persons of Hispanic origin are those who indicate that their origin is Mexican, Puerto Rican, Cuban, Central or South American, or some other Hispanic origin. Persons of Hispanic origin may be of any race.

Age. The age classification is based on the age of the person at last birthday.

Median. The median is the value which divides a distribution into two equal parts, one-half of the cases falling below this value and one-half of the cases exceeding this value.

Labor force. Persons are classified as in the labor force if they were employed or unemployed during the survey week.

Employed. Employed persons include all civilians age 16 and over who, during the specified week, (1) did any work as paid employees or in their own business or profession, or on their own farm, or who worked 15 hours or more as unpaid workers on a farm, or in a business operated by a member of the family, or (2) were not working but who had jobs or businesses from which they were temporarily absent because of illness, bad weather, vacation, or labor management dispute, or because they were taking off for personal reasons, whether or not they were paid by their employers

for time off, and whether or not they were seeking other employment.

Unemployed. Unemployed persons are those civilians age 16 and over who, during the survey week, had no employment but were available for work and (1) had engaged in any specific job-seeking activity within the past 4 weeks; (2) were waiting to be called back to a job from which they had been laid off; or (3) were waiting to report to a new wage or salary job within 30 days.

Not in the labor force. All civilians age 16 and over who are not classified as employed or unemployed are defined as "not in the labor force." This group includes persons engaged only in own-home housework, attending school, or unable to work because of long-term physical or mental illness; persons who are retired; seasonal workers for whom the survey week fell in an off-season, and the voluntarily idle.

Industry and occupation. Data on industry and occupation refer to the job held during the survey week. Persons with more than one job during the survey week were classified as employed in the industry or occupation in which they worked the greatest number of hours during the week. The industry and occupation groups are based on the classification system used in the 1980 Census of Population.

Family. A family is a group of two or more persons (one of whom is the householder) related by birth, marriage, or adoption and residing together; all such persons are considered as members of one family.

Family household. A family household is a household maintained by a family (as defined above). A married-couple family household consists of a husband and wife, with or without children. Other family households consist of a male or female householder with dependents but no spouse present.

Nonfamily household. A nonfamily household consists of a householder who lives alone or with one or more nonrelatives. It may also contain subgroups of persons who are related to each other but not to the householder.

Own children. Own children in a family are sons and daughters, including stepchildren and adopted children of the householder. The count of own children under 18 years old is limited to single (never married) children.

Family income. The total income of a family is the sum of the amounts received by all income recipients in the family.

Rounding. The individual figures in this report are rounded to the nearest thousand and have not been adjusted 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 100.0 percent. The totals, however, are always shown as 100.0.

Appendix II: Source and Reliability of Estimates

Estimates in this report are based on data obtained from the March 1986 and 1987 CPS conducted by the Bureau of the Census. The monthly CPS deals mainly with labor force data for the civilian, noninstitutional population of the United States and members of the armed forces living off post or with their families on post. Questions relating to labor force participation are asked about each member 14 years old and over in every sample household. Supplementary questions are also asked every March about household and family characteristics, and about money income and work experience for the previous year. For a more detailed description of the CPS, its sample size, and the estimating procedure, see (8, 11).

Since the CPS estimates in this report are based on a sample, they may differ somewhat from the figures obtained if a complete census had been taken using the same schedules, instructions, and enumerators. There are two types of errors possible in an estimate based on a sample--sampling and non-sampling. Standard errors that primarily indicate the magnitude of the sampling errors for data presented in this report are published in (8). Standard errors also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The full extent of nonsampling error is unknown. Particular care should thus be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

All major statements of comparison made in the text of this report are statistically significant at the 90-percent confidence level. This means that the chances are at least 9 in 10 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.

Appendix III: Characteristics of Farm Operators and Farm Income Recipients

About 1.3 million individuals were primarily employed as farm operators or farm managers (app. table 1). Around 761,000 individuals received farm self-employment income. Farm income recipients were less likely than farm operators to reside on farms. The median age for both farm operators and farm income recipients was about 49 years.

Appendix table 1—Selected characteristics of farm operators and farm income recipients, 1987¹

Characteristic	Farm operators		Farm income recipients only	
	...Thousands...	...Percent...	...Thousands...	...Percent...
Total	1,286	761	100.0	100.0
Male	1,129	641	87.8	84.2
Female	157	120	12.2	15.8
Residence:				
Farm	865	290	67.3	38.1
Nonfarm	421	471	32.7	61.9
Race: ²				
White	1,267	732	98.5	96.2
Black	9	16	.7	2.1
Hispanic origin ³	25	6	1.9	.8
Age:				
Under 18 years	6	10	.5	1.3
18 to 64 years	1,085	674	84.4	88.6
18-24 years	57	23	4.4	3.0
25-34 years	231	113	18.0	14.8
35-44 years	254	154	19.8	20.2
45-54 years	248	188	19.3	24.7
55-64 years	294	196	22.9	25.8
65 years and over	195	77	15.2	10.1
			Years	
Median age	48.8	49.3	—	—

— = Not applicable.

¹Totals may not add due to rounding.

²Does not include category "other races."

³Persons of Hispanic origin may be of any race.

Source: (7).

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