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#### ABSTRACT

The farm population has declined fairly steadily for more than half a century. By 1970 the proportion of the U.S. population residing on farms had fallen to about 5 per cent, and by 1977 had iropped to 3.6 per cent. About 1.4 per cent of the farm, population was of Spanish origin (represented for the first time in this year's report), as compared to 5.4 per cent of the renfarm population. The farm population had a higher proportion White than the nonfarm population and a lower proportion Black. In 1977 the median age of farm residents was 35.2 years, as compared with 29.1 years for nonfarm residents. The farm repulation had a higher proportion of persons 55 years and over than the nonfarm population, and a slightly lower proportion of children under age 14. Farm families were more likely than nonfarm families to be of the married-couple type, and were less likely to be maintained by women. Although a lower proportion of farm families had own children under 18 present (because of the older age structure of the farm population), those who did have children tended to have a larger number than corresponding nonfarm families. Both the South and combined North and West regions evidenced ar increase in the proportion of the farm resident lator force engaged in nonagricultural pursuits. The median income of farm families continued to lag behind that of nonfarm families. (BR)

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## CURRENT POPULATION REPORTS

U.S. Department of Commerce BUREAU OF THE CENSUS

U.S. Department of Agriculture ECONOMICS/STATISTICS, AND COOPERATIVES SERVICE

# Farm Population

Series P-27, No. 51 Issued November 1978.

# Farm Population of the United States: 1977

U.S. DEPARTMENT OF HEALTH
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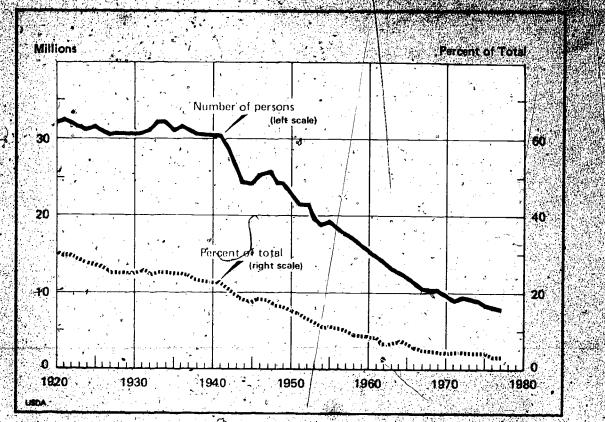
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#### Figure 1. Farm Population, 1920 to 1977

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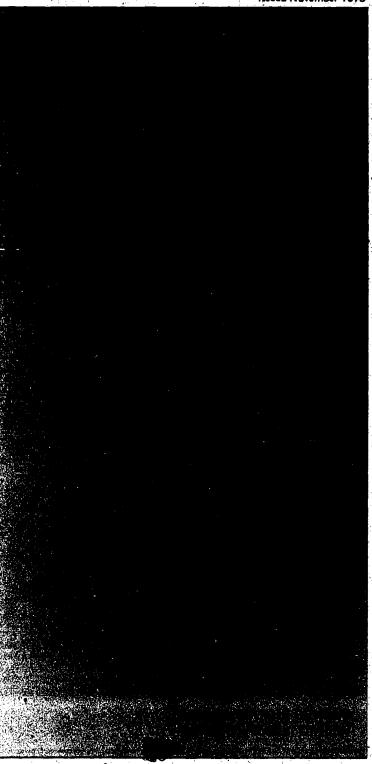


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## CURRENT POPULATION REPORTS

### Farm Population

Series P-27, No. 61 Issued November 1978





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### SYMBOLS USED IN TABLES

- + Represents zero.
- B Base less than 75,000
- ... Not applicable.

### Farm Population of the United States: 1977

During the first 7 years of this decade, the U.S. farm population decreased by 1.9 million persons (19.6 percent). The number of persons living on farms in rural areas averaged 7,806,000 for the 12-month period centered on April 1977. These estimates were prepared cooperatively by the Bureau of the Census and the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture.

The farm population has declined fairly steadily for more than half a century (figure 1). In 1920, when the farm population was first enumerated separately, 32 million or 30 percent of the Nation's population resided on farms. The proportion had fallen to about 5 percent by 1970, and has now dropped to 3.6 percent (table A).<sup>2</sup>

# DEMOGRAPHIC AND SOCIAL CHARACTERISTICS OF THE FARM POPULATION

Spanish origin. The estimated number of farm residents of Spanish origin, which is presented for the first time in this year's report, was 112,000—1 percent of the Spanish origin total—in 1977. Only about 1.4 percent of the farm population was of Spanish origin, as compared to 5.4 percent of the nonfarm population (table B). Due to the size of the sample estimate, detailed characteristics of the Spanish-origin farm population are not shown in this report.

Racial composition. The farm population has a higher proportion White than the nonfarm population and a lower proportion Black (table B). Since 1970, different rates of decrease by race have caused Whites to increase from 90 to 94 percent of the farm total, and Blacks to decline from 9 to 5 percent (table 1). The rate of decrease for White farm residents over this 7 year interval was 16 percent, as compared with a 53-percent decrease for Blacks. The numerical loss, however, was much greater for Whites (1,426,000) than for Blacks (452,000).

Historically, higher rates of population loss among Black farm residents have been associated with heavy losses in the

number of cotton and tobacco tenant farmers. Blacks have had a high representation among tenant farmers, and the number of such farms has fallen steadily and sharply since 1935. With mechanization and modernization of cotton and tobacco farming, landowners have, for the most part, ceased to employ tenant labor to produce their crops.<sup>3</sup>

Table A. Population of the United States, Total and Farm: April 1960 to 1977

(Numbers in thousands)

		Farm population						
Year	Total resident population	Number of persons <sup>1</sup>	Percent of total population					
1977 1976	215,915 214,284	7,806 8,253	3.6 3.9					
1975	212,542	8,864	4.2					
1974	211,018	9,264	4.4					
1973	209,468	9,472	4.5					
1972 1971	207,802 205,677	9,610 9,425	4.6 4.6					
1970	<sup>2</sup> 203,235	9,7	4.8					
1969	200,887	10,307	5.1					
1968	,198,923	10,454	. 5.3					
1967	196,976	10,875	5.5					
1966	195,045	11,595	5.9					
1965	192,983	12,363	6.4					
1964	190,507	12,954	6.8					
1963	187,837	13,367	7.1					
1962:	185,104	14,313	7.7					
1961:	182,298	14,803	8, 1					
1960	<sup>2</sup> 179,323	15,635	8.7					

<sup>&</sup>lt;sup>1</sup>Five-quarter averages centered on April; see "Definitions and Explanations" in the appendix.

<sup>2</sup>Official census count.

<sup>&</sup>lt;sup>2</sup>Estimates of the farm population from 1920 to the present are not strictly comparable due to definitional changes. Prior to 1960, farm residence was based essentially on self-identification, i.e., respondents themselves determined whether they lived on a farm. From 1960 to 1977, the farm population has been restricted to persons living in rural territory and has been identified on the basis of acreage and dollar sales of farm products (see "Definitions and Explanations" in the appendix).



Data from the 1974 Census of Agriculture indicate a drop in tenancy from 17.1 to 11.3 percent between 1964 and 1974 for all farms, and a drop from 43.1 to 13.9 percent for farms operated by Blacks and persons of races other than White. See also Calvin L. Beale, "The Black American in Agriculture," in Mabel M. Smythe, ed., The Black American Reference Book (Englewood Cliffs, N.J.: Prehtice-Hall, 1976).

<sup>&</sup>lt;sup>1</sup>The Economics, Statistics, and Cooperatives Service was created in January 197B from the former Economic Research Service, Statistical Reporting Service, and Farmer Cooperative Service.

### Table B. Farm and Nonfarm Population by Race and Spanish Origin: 1977

(Numbers in thousands. 'Figures are five-quarter averages centered on April)

				Percent distribution					
Race	Total	Farm	Nonfarm	Total	Farm	Nonfarm;			
All races	<sup>1</sup> 211,792	7,806	203,986	100.0	100.0	100.0			
White	183,664 24,472 11,154	7,949 397 112	_176,315 24,075 11,042	.86.7 11.6 5.3	94.1.` 5.1 1.4	86.4 11.8 5.4			

<sup>&</sup>lt;sup>1</sup>The total U.S. population figure shown here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.

Table C. Farm and Nonfarm Population by Age: 1977

(Numbers in thousands. Figures are five-quarter averages centered on April
For meaning of symbols, see text)

	8_		· Percent distribution ~					
Age	Farm	Nonfarm	Farm	Nonfarm				
All ages	7,806	203,986	. 100.0	100.0				
Under 14 years	1,555 1,076 517 • 354	46,022 23,714 18,460 16,868	19.9 13.8 6.6 4.5	22.6 11.6 9.0 8.3				
30 to 34 years	, 376 433	14,369 11,526 10,562 10,923	4.8 5.5 5.9 6.5	7.0 5.7 5.2 5.4				
45 to 49 years	556 554 . 467	11,250 10,307 8,776 21,212	7.1 7.1 6.0 12.2	5.5 5.1 4.3				
Median age	35.2	29.1-		• • • •				

Another factor underlying the disproportionate drop in the Black farm population is the marginal economic situation of this group. According to the 1974 Census of Agriculture, Black farm operators tended to be older than White operators, and their farms were smaller and less productive. These data relate to farm operators rather than to the farm-resident population. However, income data for farm-resident families from the March 1977 CPS yield a similar picture (table 9). The median income of Black farm families in 1976 was \$5,181, only about two-fifths

of the \$12,129 median for White farm families. The proportion of Black farm families below the poverty level was 46 percent; about five times higher than the national average for all families and four times higher than that for White farm families.

Footnote 4 Con	Ope	rators
•	Black and other races	<b>White</b>
Age of operator:		, r
Percent 55 years and over	53.1	/ 43.3
Median age	56 years	52 years
Size of farm:	•	
Percent under 140 acres .	70.9	`35.9
Median size	69 acres	202 acres
Value of products sold:		
Percent under \$20,000	. 72,3	53.2
Median value	\$9,012	\$18,279



<sup>&</sup>lt;sup>2</sup>Persons of Spanish origin may be of any face.

<sup>\*</sup>Age of operator and acreage and value of products sold were reported by race of operator in the 1974 Census of Agriculture, Volume I, for individual and family operations (sole proprietorships) and for partnerships, which had annual sales of \$2,500 or more. Summary data from this source are as follows:

Age and sex. In 1977, the median age of farm residents was 35.2 years, as compared with 29.1 years for nonfarm residents (table C). The farm population had a higher proportion of persons 55 years and over than the nonfarm population, and a slightly lower proportion of children under age 14. Within the working ages, farm residents in the later years, 45 to 64, exceeded those 25 to 44, a reversal of the pattern found in the nonfarm population.

Farm males outnumbered farm females by 338,000 in 1977 (table 2). There were 109 males on farms for every 100 females, whereas there were only 93 males per 100 females in the non-farm population. The lower representation of females in the farm population, as compared with the nonfarm population, is most pronounced in the late teens and early 20's and again in the late 50's and older ages—when women have the highest probabilities of being single and widowed, respectively. The relatively high sex ratios for farm residents at these ages probably reflect a tendency toward increased outmigration of young farm women as they reach maturity, and of older farm women upon widowhood. Women on farms, in comparison to nonfarm women, had a higher proportion married with husband present and a lower proportion in the combined category of single, separated, divorced, and widowed (table D).

Family type, family size, and fertility. Farm families were more likely than nonfarm families to be of the married couple type

Table D. Percent Distribution of the Farm and Nonfarm Population, by Marital Status and Sex: March 1977

	<i>a</i> ,		
Sex and marital status	Total	Farm	Nonfarm
			.,
Female, 14 years			Γ΄.
• and over	100.0	100.0	100.0
Single	23.4	21.6	23.5
Married, husband present.	55.7	68,2	55.3
Married, husband absent	٠3.6	1.2	3'. 7
Separated	2.7	. 0.6	Ý.8
Other 1	0.9	. 0.5	(1.9
Widowed	11.6	8.4	11\.8
Divorced	5.6	0.8	5'. 8
Male, 14 years	* .	,	
` and over	,100.0	100.0	100.0
Single	30.2	31.7	. 30.k
Married, wife present	60.9	6Ì.6	60.9
Married, wife absent,	2.5	-2.0	2.5
Separated	1.₹	1.3	ነ 1.7
Other	. 0.7	0.7	0.7
, Widowed	2.4	2.1	2.4
Divorced	4.0	2.7	.4.1

Includes women with a husband in the Armed. Forces

Source: Data from March 1977 Current, Population Survey. See Current Population Reports, Series P-20, No. 323, "Marital Status and Living Arrangements: March 1977."

(table 3), and were less likely to be maintained by women (no husband present). Although a lower proportion of farm families had own children under 18 present (because of the older age structure of the farm population), those who did have children tended to have a larger number than corresponding nonfarm families.

Fertility data for June 1977 (table E) indicated the average number of children born to farm women 18 to 44 years of age (1,973 per 1,000 women) was significantly higher than the average born to nonfarm women (1,597 per 1,000 women). For women 18 to 39 years of age reporting on birth expectations in the June survey, expected lifetime births were higher for farm than nonfarm women. The difference, however, was due entirely to the difference in the number of births to date and not to additional births expected:

# ECONOMIC CHARACTERISTICS OF THE FARM POPULATION

The total number of persons employed solely or primarily in agriculture in the United States averaged 3.5 million in 1977 (table F). Fifty four percent of these lived on farms, whereas the remainder lived off farms and commuted to work (figure 2). Agricultural workers have evidenced contrasting growth trends by place of residence. From 1970 to 1977, farm resident agricultural workers declined by one-fifth (453,000). During

Nonfarm Women: June 1977

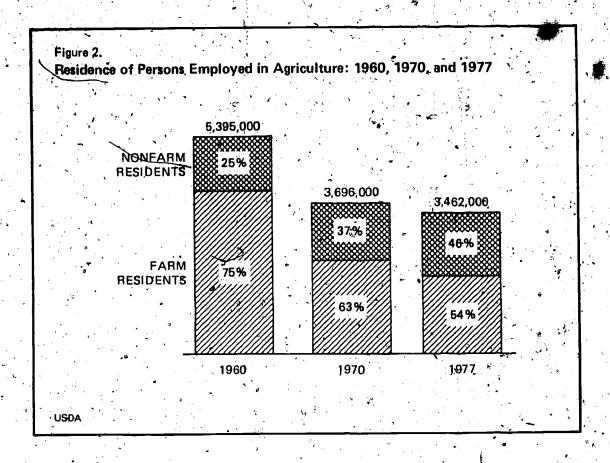
- Characteristic	Total	Farm	Nonfarm
CHILDREN EVER BORN PER			
1,000 WOMEN	.•		,
Total, 18 to 44 years	1,608	1,973	1,597
18 to 24 years	432	402	433
25 to 29 years	1,286	1,581	1,280
30 to 34 years	12,065	2,241	2,059
35 to 39 years	2,734	3,288	2,711
40 to 44 years	3,153	3,380	3,143
•	*.		
NOMEN 18 TO 39 YEARS	/	a. '	
OLD.			. '
Simple to data non 1 000		,	
Births to date per 1,000	1,493	1,885	1,482
women	1,475	1,005.	1,402
ted per 1,000 women	770	744	771
Lifetime births expected		'	//*
per 1,000 women	2,263	2,629	2,253

<sup>&</sup>lt;sup>P</sup>Data limited to women reporting on birth expectations.

Source: Data from the June 1977 Current
Population Survey. See Current Population Reports, Series P-20, No. 325, "Fertility of
American Women: June 1977." See table A-7 for
bases.

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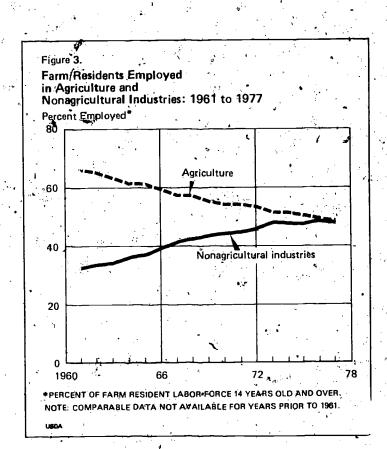
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this same period, the number of agricultural workers living off farms rose from 1.4 to 1.6 million. This increase reflects a general trend among farm wage workers to commute from nonfarm residences to their farm jobs. In 1977, about 3 of every 4 wage and salary agricultural workers lived off farms (tables G and 7).

Labor force participation. In 1977, there were 3.8 million persons in the farm-resident labor force. Farm residents, 14 years of age and over, were just as likely to be in the labor force, either employed or seeking work, as were their nonfarm counterparts. For both residence groups, the 1977 labor force participation rate was about 60 percent (table H). Although there was little difference in the overall labor force participation rate by farm-nonfarm residence, there was a significant difference between these two groups by sex. Farm resident men had a higher labor force participation than nonfarm men. On the other hand, although the labor force participation of farm women had increased from 30 to 41 percent between 1960 and 1977, their level of participation remained below that of nonfarm women (47 percent).

Agricultural and nonagricultural employment. Between 1970 and 1977, the employed farm resident labor force engaged solely or primarily in agriculture declined from 2.3 to 1.9 million persons. During this same 7-year period, the number of farm residents working in nonagricultural industries remained essentially the same. As a consequence, the proportions employed in agriculture and nonagricultural industries in 1977 were nearly equal (table 5 and figure 3). This similarity in the



# Table F. Persons 14 Years Old and Over Employed in Agriculture, by Farm-Nonfarm Residence and Sex: , 1977 and 1970

(Numbers in thousands. Figures are five-quarter averages centered on April)

$\sim$	Both		Male		,, Female		Percent distribution					
Residence	Both sexes		male		rema te		Both sexes		Male		Pem	ale
	1977	1970	1977	1970	1977	1970	1977	1970	1977	1970	1977	1970
Parm residents.	3,462 1,880 1,582	3,696 2,333 1,363	2,795 1,527 1,267	3,045 1,902 1,143	667. 353 315	A. W.	100.0 54.3 45.7	100.0 63.1 , 36.9	100.0 54.6 45.3	100.0 62.5 37.5	100.0 52.9 47.2	100.0 , 66.3 33.8

# Table G. Nonfarm Residents 14 Years Old and Over Employed in Agriculture, by Class of Worker and Sex: 1977 and 1970

(Numbers in thousands. Figures are five-quarter averages centered on April)

	Both		\ \ Wa	10	Female		Percent distribution							
Class of worker	Both	вежев	Ma	ie .	rem	are	Both	8exes	Ма	le	Fem	ale		
	.1977	1970	1977	1970	1977 -	1970	1977	1970	1977	1970	1977	1970		
Total agricultural workers	1,582	1,363	1,267 394	1,143	315 40	220 28	100.0	100.0 31.1		100.0	100.0	100.0		
Wage and "salary workers	1,075 72	872 66	844	719 27	230 44	153	68.0 4.6	64.0 4.8	66.0		73.0 14.0	69.5 17.7		

proportions employed in agriculture and nonagricultural industries was apparent among both White and Black farm residents (table 6).

Both the South and the combined North and West regions have evidenced an increase in the proportion of the farm resident labor force engaged in nonagricultural pursuits. Southern farm residents, however, are more likely to have nonfarm jobs as their principal employment than are farm residents of the North and West. In 1977, 55 percent of workers living on Southern farms were primarily engaged in nonagricultural activities; among residents on farms outside the South, only 45 percent were so employed. This regional disparity is apparently associated with the disproportionately high number of low-income farms in the South, whose residents must rely on supplemental nonfarm income. According to the 1974 Census of Agriculture, the South contained two-fifths of all farms in the United States but nearly three-fifths of those with sales of less than \$2,500.

"Unemployment. As in earlier years, the rate of unemployment—the proportion of the civilian labor force currently without a

The Current Population Survey indicated that 27.5 percent of the Southern farm resident labor force was engaged in nonagricultural activities in 1970. The corresponding figure for the combined North and West was 25.1 percent.

job and looking for work—was relatively low for the farm population. About 3 percent of the labor force living on farms in 1977 was unemployed; the comparable rate for the nonfarm population was 7.5 percent (table H). Although there is some evidence of racial disparity in the farm unemployment rates, both rates were lower than the corresponding rates for the nonfarm population. In 1977, the rates of unemployment for White and Black farm residents were 2 percent and 6 percent, respectively. The comparable nonfarm rates were nearly 7 percent for Whites and 14 percent for Blacks.

Class of worker. Farm residents primarily engaged in agriculture were most likely to be classed as self-employed, irrespective of region of residence (table 7). There was some evidence, however, of a regional difference in the proportions employed for wages and salary or as unpaid family workers. In the South, there is some evidence that workers who were not self-employed were most likely to be working for wages and salary. In the combined Northern and Western States, however, employed farm residents were just as often unpaid family workers as wage and salary workers. The indicated prevalence of salaried employment in the South reflects, at least in part, the higher incidence of nonagricultural employment among Southern farm people discussed earlier. As in previous years, persons living on



Table H. Employment Status of the Farm and Nonfarm Population 14 Years Old and Over, by Sex: 1977

(Numbers in thousands. Figures are fivequarter averages centered on April)

Sex and employment status	Farm	Non- farm
		1.
Both sexes	6,251	157,965
In labor force	3,838	94,620
Labor force participation		<i>'</i>
ratepercent	61.4	59.9
Employed	3,736	87,502
Unemployed	102	7,118
Unemployment rate percent	2.7	7.5
Male	3,264	74,672
In labor force	2,606	55,596
Labor force participation	. 70 0	·~_, _
ratepercent	79.8	74.5
Employed	2,562 44	51,789
Unemployed		3,807
Unemployment ratepercent	1.7	· _ \ : 6.8
Female	25,987	83,292
In labor force	1,232	39,023
Labor force participation		
ratepercent	41.2	46.9
Employed	1,174	35,713
Unemployed	58	3,310
Unemployment ratepercent	4.7	8.5

farms and working in nonagricultural industries in 1977 were predominantly wage and salary workers regardless of region of residence.

Income. The median income of farm families continues to leg behind that of nonfarm families. In 1976, the median income for farm families was \$11,663, substantially lower than the \$15,065 for nonfarm families (table 9). The proportion of farm families with 1976 incomes below the poverty level was 13.5 percent, 1½ times that of nonfarm families.

#### RELATED REPORTS

Comparable figures for 1976 appear in Current Population Reports, "Farm Population of the United States 1976," Series Census ERS (P-27), No. 49, and earlier reports were published annually beginning in 1961.

Beginning with 1972, the data are not strictly comparable with data for earlier years because of adjustments in sample design and survey procedures occasioned by 1970 census data. Application of 1972 procedures to data for March 1970 lowered the farm population 14 years old and over by about 25,000. In 1976, revisions were made in the processing procedure for determining farm nonfarm residence of the rural population. The revisions lowered the total farm population by an estimated 130,000. The effects are discussed in detail in the report cited above.

Although not fully comparable with the Current Population Survey, farm population figures for 1970 for the United States, States, and counties appear in Chapter C of 1970 Census of Population, Volume I, Characteristics of the Population; characteristics of the farm population by States are presented in chapter D.

### Table 1. Farm Population, by Race and Sex, for Broad Age Groups: 1977 and 1970

(Numbers in thousands) Figures are five-quarter averages centered on April)

, , , , , , , , , , , , , , , , , , , ,	Both	Seves	Мд	10	Fem		,	Pe,	rcent di	stributi	on	, ,
Race and age		f			rem	116	Both,	sexes	Ma	le .	Fem	ale
	1977.	1970	1977	1970	1977	1970	1977	1970	1977	1970	1977	1970
All races	7,806	9,712	4,072	5,004	3,734.	4-,708	100.0	100.0	100.0	1Òọ.0	100 <b>.0</b>	100.0
Under 14 years 14 years and over	1,555 6,251	2,490 7,222	808 3,264	1,274 3,730	747 2,987	1,216	19.9 80.1	25.6 74.4	19.8 80.2	, 25. <b>5</b> , 74.5	20.0 80.0	25.8 7472
White	7,349	8,775	3,850	4,524	3,497	4,251	100.0	-100.p	100.0	100.0	100.0	100.0
Under 14 years	1,433 5,914·	2,152 6,623	755 . 3,095	1,10± 3,423	678 2,819	1,051 3,200	19.5 80.5	24.5 75.5	19.6 80.4	24.3 75.7	19.4 80.6	24.7 75.3
Black	397	849	190	. 432	208	417	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years	108	311	45 145	$ \int_{273}^{159} $	63 145	153 264	27.2 73.3	36.6 63.4.	23.7 76.3	36.8 63.2	30.3 69.7	36.7 63.3

#### Table 2. Farm Population, by Age and Sex: 1977 and 1970

(Numbers in thousands. Figures are five-quarter averages centered on April)

ing and described and continues the constitution described in the constitution of the	Both sexes Male		1	Fem		Percent distribution						
Age		se xes	Frid	l	r em.		Both	sexes	Ma	le •	Fema	ile
	1977	1970	1977	1970	1977	- 1970	1977	1970	1977	1970	1977	1970
All agea	7,806	9,712	4,072	5,004	3,734	4,708	100.0	100.0	100.0	100.0	100.0	100.0
Under 14 years	1,555 6,251	2,490 7,222	808 3,264	1,274	. 747 2,987	1,216 3,492	19.9 80.1	25.6 74.4	19.8 80.2	25.5 74.5	.20.0 .80.0	25.8 74.2
14 to 19 years	1,026 ا 517مر	1,316	590 - 29.7	714 269	486	602	13.8	13.6	14.5	14.3	13.0	12.8
25 to 34 years	. 730 891	770	374 446	371 518	355 445	399	- 9.4	7.9**	سيمه و	7.4	9.5	4.9. 8.5
45 to 54 years	1,065	1,250	529	618	516	543 631	11.4	10.9	11.0	10.4	11.9	11.5
55 to 64 years	1,021 950	1,207	545 483	64 l 599	476 7 467	561 523	$\begin{bmatrix} 13.1 \\ 12.2 \end{bmatrix}$	12.4 11.6	13.4	12.8 12.0	12.7 12.5	11.9 14.1

Table 3. Characteristics of Farm and Nonfarm Families, by Race: March 1977

(For meaning of symbols, see text)

		All races			White		Black			
Characteristic	. Total	Farm	Nonfarm	Total	·Farm	Nonfarm	Total	Farm	Nonfarm	
									į į	
m . s .: 1	56,710	2,184	54,526	50,083	2,072	48,011	5,804	97	5, <b>7</b> 07	
Total familiesthousands	100.0	100:0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
	83.8	92.4	83.4	86.7	93.0	86.4	58.7	81.4	58.3	
Married couple Male head, no wife present	2.6	3.8	2.6	2.4	3.8	2.4	4.2	4.1	4.2	
Female head, no husband present	13.6	3.8	14.0	10.9	3:2	11.2	37.1	,14.4	37.4	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
All sizes	38.0	39.6	37.9	39.2	40.3	39,1	29.8	26.8	29.9	
2 persons	53.2	49.0	53.4	53.0	49.6	53.2	53.5	40.2	53.7	
3 to 5 persons	8.8	11.4	8.7	7.8	10.1	7.7	16.7	_33.0	16.4	
o persons or more		1			_	•				
Mean size, of family	3.37	3.47	3.36	3.31	3.41	3.30,	3.78	4.60	3. <b>7</b> 7	
1	1						İ			
All families with own children under I8.4	30,145	1,029	29,116	26,014	971	25,043	3,589	47	3,542	
Percent with	72.3	66.0	72.6	73.6	67.4	73.9	63.3	(B)	63.6	
1 or 2 own children under 18 3 or 4 own children under 18	23.7	25.5	23.6	23.1	25.2	23.0	27.7	(B)	27.6	
5 or more own children under 18	4.0	8.6	3.8	, 3.3	7.3	3.1	9.1	(B)	8.8	
5 of more own children duder rotters				1	]		-			
Mean number of own children	2.01	2.27	2.00	1.98	2.21	1.97	2.21	(B)	2.19	
	1.	1							'	
Percent of all families with members-	55.5	49.1	55.8	53.7	48.5	53.9	69.7	57.7	69.9	
Under 18 years	92.3	89.1	92.5	91.9	89.1	92.0	95.4	89.7	95.5	
18 to 64 years	17.5	24.4		17.8	24.2	17.5	15.5	29.9	15.2	

Source: Data from March 1977 Current Population Survey. See Current Population Reports, Series P-20, No. 326, "Household and Family Characteristics: March 1977."

Table 4. Metropolitan-Nonmetropolitan Residence of the Farm and Nonfarm ( Population, by Race: 1977

Figures are five-quarter averages centered on April)

Race and residence	Total	Farm '	Nonfarm
ALL RACES			,
United States Inside SMSA's Percent Outside SMSA's Percent	1211,792 143;182 67.6 68,610 32.4	7,806 1,501 19.2 6,305 80.8	203,986 141,681 69.5 62,305
WHITE			
United States	183,664 121,773 66.3 61,890 33.7	7,349 1,452 19.8 5,897 80.2	176,311 120,321 68.2 55,993 31.8
BLACK  United States.  Inside SMSA's. Percent.  Outside SMSA's. Percent.	24,472 18,354 75.0 6,118 25.0	397 32 8,1 4 46 92,24	24,07 18,32; 76. 5,75 23.

<sup>1</sup> The total U.S. population figure shown here differs from that shown in table A because the latter refers to the total resident population, whereas this and other tables refer only to the civilian noninstitutional population.

28MSA's refers to standard metropolitan statistical areas as designated in the 1970 census publications; see "Definitions and Explanations."

Table 5. Employment Status of the Farm Population 14 Years Old and Over, by Sex, 1977 and 1970, and by Region, 1977

(Numbers in	thousands.	Figures ar	e five quar	ter average	es centered	on April)		• .
	•					Percent d	istribution	•
Sex and employment status	United	States	North and West	South	Unitled	States,	North and West	South
	1977	1970	1977	1977	1977	1970	1977	1977
Both sexes In labor force Not in labor force	6,251 3,838 2,413	7,222 4,293 2,929	3,895 2,462 1,433	2,357- 1,376 981	100.0 61.4 38.6	100.0 59.4 <sup>2</sup> 40.6	100.0 63.2 36.8	100.0 58.4 41.6
In labor force	3,838 3,736 1,880 1,856 102	4,293 4,211 2,333 1,878 82	2,462 2,401 1,297 1,104	1,376 1,336 582 753 41	100.0 97.3 49.0 48.4 2.7	100.0 98.1 54.3 43.7	100.0 97.5 52.7 44.8 2.5	100.0 97.0 42.3 54.7 3.0
Male In labor force Not in labor force	3,264 2,606 658	3,730 2,974 756	2,063. 1,691 372	1,201 915 286	100,0 79.8 20.2	100.0 79.7 20:3	100.0 82.0 18.0	100.0 76.2 23.8
In labor force Employed Agriculture Nonagricultural industries Unemployed	2,606 2,562 1,527 1,035 44	2,974 2,932 1,902 1,030 42	1,691 1,663 1,049 614 29	915 899 479 420 16	100.0 98.3 58.6 39.7	-100.0 98.6 64.0 34.6 1.4	100.0 98.3 62.0 36.3	100.0 ,98.3 ,52.3 ,45.9 ,1.7
Female	2,987 1,232 1,755	3,492 1,319 2,173	1,834, 770 1,060	1,156 462 694	100.0 41.2 58.8	100.0 37.8 62.2	100.0 42.1 57.9	100.0 40.0 60.0
In labor force Employed Agriculture Nonagricultural industries Unemployed	1,232 1,174 353 821 58	1,319 1,279 431 849 40	770 738 250 488 32	462 436 104 333 25	100.0 95.3 28.7 66.6 4.7	100.0 97.0 32.7 64.4 3.0	100.0 95.8 32.5 63.4 4.2	-100.0 94.4 22.5 72.1 5.4

Table 6. Employment Status of the Farm Population 14 Years Old and Over, by Race and Sex, for Regions: 1977

			•	Perc	ent distribut	ion ,
ace, sex, and employment status	, United	T		United	North and West	Sòuth
	States	and West	South	States	and west	South
ITE						
	5,914	3,868	2,045	100.0	100.0	100,0
Both sexes	3,659 2,255	2,446	1,213 833	61.9	63.2 36.7	59.3 ~ 40.2
labor force	3,659	1	1,213	100.0	100.0	100.0
Employed	3,568		1,181	9.7.5	97.6	197.4
Agriculture	1,798	•	509	49.1	52.7	42.0
Nonagricultural industries	1,7 <u>70</u> 91		672 32	48.4 2.5	44.9 2.4	2.0
Male	3,095	2,050	1,045	100.0	100.0	, 100.0
labor force	2,493		810	80.5	82.0 18.0	17.
ot in labor force	602		234	19.5		
labor force	2,493		810 799	100.0	100.0 98.3	100.
Employed	2,453 1,460		418	58.6	61.9	51.
Nonagricultural industries	993		380	39.8	36.4	46.
Unemployed	. 40	28	12	,1.6	1.7	1.
Female	2,819		1,000	100.0	/ 100.0	100.
labor force	1,166		599	41.4.5 58.6	· , 42.1 · / ► 58.0	40.
ot in labor forca	1,653		1	100.0	100.0	100.
labor force	, 1,166 1,115		401 382	95.6	9,5.8	. 95.
Employed	7338		90	- ` 29.0 •	32.5	22.
Nonagricultural industries	117		292	66.6	63.3	72.
Unemployed	51	32	. 19	4.4	4.2	
ĻACK ,					(n)	100.
Both sexes	151		2 <del>83</del>	100.0 52.6	(B)	52.
n labor force	138	· 1	135	47.4	(B)	47.
n labor force	15/	. 4	148	100.0	(B)	100.
Employed	144		140	94.1	(B)	94.
Agriculture,	( 7		69	47.1	(B)	48
Nonagricultural industries	,	i i	9	5.9	(B)	_ 6.
	14		142	100.0	(B)	100.
Malen labor force	, 9	1 '	95	67.6	(B)	6 <b>6</b> .
ot in labor force	4		46	32.4	(B)	32.
n labor force	91	3	95	100.0	(B)	100
Employed	9	1	93	98.0	(B)	97
Agriculture	6	1	57	61.2	(B)	.36
Nonagricultural industriesUnemployed		3.	3	3.1	(B)	3.
	1.6	5 4	. 142	100.0	(B)	100
Femalen labor force	14		53	37.9	(B)	37.
ot in labor force	9	1 h	89	62.8	(B)	62
n labor force	, ,	5	53	(B)	(B)	
Employed	4	8 - 1	47	(B)	(B)	(1
Agriculture	1	2   -	11	(B)	(B)	
Nonagricultural industries	3	. [ 1	36	(B)	(B)	1 (1

Table 7. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker and Sex, for Regions: 1977 and 1970

	Minited :	States	North a	nd West	Sou	th	Percent distribution							
Sex and class of worker		Ĩ					United	States	North a	nd West	Sou	th		
	1977	1970	1977	1970	or 1977	1970	1977	1970	1977	1970	1977	1970		
TOTAL AGRICULTURAL WORKERS			7			,st								
Both sexes	1,880	2,333	/ 1,297	1,599	582	734	100.0	100.0	100.0	100.0	100.0	100.0		
Self-employed workers	1,147 377 356	1,411 395 526	801 231 266	974 216 408	345 146 90	437 179 118	61.0 20.1 18.9	60.5 16.9 22.5	61.8 17.8 20.5	60.9 13.5 25.5	59.3 25.1 15.5	59.5 24.4 16.1		
Male	1,527	1,902	1.049	ຸງ , 288	479	614	100,0	100.0	100.0	100.0	100.0	100.0		
Self-employed workers	1,067 321 139	1,352 349 200	750° 195 104	195	318 126 34	417 153 45	69.9 21.0 9.1	71.1 18.3 10.5	71.5 18.6 9.9	72.6 , 15.2 12.0	66.4 26.3 7.1	67.9 24.9 7. <b>9</b>		
Female	<b>3</b> 53	431	250	311	104	120	100.0	100.0	100.0	100.0	100.0	100.0		
elf-employed workers age and salary workers npaid#family workers	79 55 218	59. 46 326	52 35 162	38 20 253	29 20 56	21 26 73	22.4 15.6 61.8	13.7 10.7 75.6	20.8 14.0 64.8	12.2 6.4 81.4	26.0 19.2 53.8	17.5 21.7 60₄8		
TOTAL NONAGRICULTURAL WORKERS		•		-			1	, ,						
Both sexes	<b>\$1,856</b>	1,878	1,104	1,104	753	774	100.0	100.0	100.0	100.0	100.0	100.0		
Self-employed workers	167 1,672 17	159 1,698 21	97 998 8	92 1,000 -13	70 675 8	67 698 8	90.1 90.1 0.9	8.5 90.4 - 1.1	8.8 90.4 0.7	8.3 90.6 1.2	9.3 89.6 1.1	8.7 90.2 1.0		
Male	1,035	1,030	. 614	592	420	438	100.0	100.0	100.0	100.0	100.0	100:0		
ielf-employed workers	118 915 • 247, 1	112 9L2 5,	· 70 543 -	66 523 <b>2</b>	372 1	46 389 . 3	11.4 88.4 0.1	10.9 88.5 0.5	11.4 88.4	11.1 88.3 0.3	11.4 88.6 0.2	10.5 88.8 .0.7		
Female.	821	849	488	514	333	335	100.0	100.0	100.0	100.0	100.0	100:0		
Gelf-employed workers	49 757	4.7 786	27 454	26 477	303	309	6.0	5.5 92.6	93.0	5.1 92.8	6.6 91.0	, 6.3 92.2		
Wage and salary workers Unpaid family workers	15	16	4 74	10	303	309	1.8,	1.9	1.6	1.9	2.1	1.8		



Table 8. Farm Residents 14 Years Old and Over Employed in Agriculture and Nonagricultural Industries, by Class of Worker, Race, and Sex, for Regions: 1977

(Numbers in thousands. Figures are five-quarter averages centered on April. For meaning of symbols, see text) Agricultural workers Percent distribution Nonagricultural workers Nonagricultural workers Agricultural workers Race, sex, and class of worker North North North United North United United and United and South States South States West South States West South and West States and West WHITE 100.0 100.0 100.0 1,798 1,289 509 1,770 1,098 672 100.0 100.0 100.0 Both sexes..... 8.8 9.8 68 62.5 62.0 63.7 9.2 Self-employed workers... 1,124 799 88.8 108 1,590 993 597 18.4 17.4 21.2 89.8 90.4 224 Wage and salary workers...... 331 19.1 20.6 15.1 1.0 . 0.7 1,2 17 343 266 Unpaid family Workers.... 100.0 100.0 100.0 100.0 100.0 1,041 613 380 100.0 1,460 418 993 71.8 71.3 11.6 11.4 11.8 115 70 45 71.6 748 Self-employed workers..... 1,046 298 94 335 19.4 18.3 22.5 88.3 88.4 88.2 877 542 190 Wage and salary workers..... 283 .0.3 10.0 6.2 0.1 26 9.0 131 104 Unpaid family workers...... 292 21 100.0 100.0 100.0 100.0 100.0 249 90 777 485 100.0 338 Female.... 48 27 23.1 28.9 7.2 26 20.9 78 52 Self-employed workers..... 34 92.8 90.1 713 450 14.2 `13.7 15.6 91.8 Wage and salary workers..... 48 14 1.6 51 62.7 64.7 56.7 2.1 2.4 Unpaid family workers..... 212 161 16 8 BLACK (B) (B) (B) (B) (B) (B) 72 3 69 72 ì 71 Both sexes ...... (B) (B) (B) (B) (B) Self-employed workers..... 20 20 (B) (B) (B) 40 37 69 1 69 (B) (B) (B) (B) Wage and salary workers...... (B) 12 (B) (B) (B) (B) Unpaid family workers..... 12 (B) (B) (B) (B) (B) 35 (B) 57 35 60 (B) (B) (B) (B) Self-employed workers..... °19 19. (R) (B) (B) (B) 33 (B) (B) Wage and salary workers..... 31 33 (B) (B) 34 (B). (B) (B) (B) (B) 7 7 Unpaid family workers..... (B) 36 (B) (B) (B) (B) (B) 12 11 36 Female...... (B) (B) (B) (B) (B) Self-employed Workers..... (B) (R) 35 (B) <del>(B)</del> 36 Wage and salary workers .... 6 (B) (B) (B) (B) (B) Unpaid family workers.....

Table 9. Income Characteristics of Farm and Nonfarm Families, by Race: 1976

(Families as of March 1977)

		All races			White			Black	
Chdracteristic	Total	Farm	Nonfarm	Total	Farm	Nonfarm	Total	Farm	Nonfarm
Total familiesthousands	56,710	2,184	54,526	50,083	2,072	48,011	5,804	97	5,,707
Families by 1976 income	100.0	100.0	100.0	100.0	100.0	. 100.0	100.0	100.0	100.0
Less than \$4,000 or loss	6.9	13.6	6.7	5.5	12.5	5.2	18.7	37.1	18.4
\$4,000 to \$9,999	23.0	28.4	22.8	21.6	27.6	21.4	34.7	45.4	34.6
\$10,000 to \$14,999	20.3	19.5	20.3	20.4	19.9	20.4	18.8	12.4	19.0
\$15,000 to \$19,999	19.1	15.2	19.2	198	15.8	19.9	13.5	3.1	1.3, 7.
\$20,000 and over	30.7	(-23.3)	31.0	32.7	24.3	33.0	14.2	4.1	14.4
Hedian family income (1976 dollars):			٠,	•	•				
1976	14,958	/11,663	15,065	15,537	12,129	15,646	9,242	5,181	9,355
1975	14,510	/11,471	14,627	15,091	11,886	15,221	9,285	5,228	9,383
1974	14,894	12,250	14,997	15,478	12,590	15,604	9,242	6,029	9,316
1973	15,437	12,869	15,568	16,134	13,296	16,279	9,312	5,891	9,400
1972	15,126	12,046	15,280	15,715	12,399	15,892	9,340	5,337	9,442
1971	14,457	10,112	14,668	15,001	10,419	15,229	9,052	4,581	9,205
1970 ,	14,465	9,935	14,677	15,006	10,291	15,236	9,205	4,438	9,374
•	ł					!			2, 4
Percent of families	100.0	100.0	100.0	. 100,0	100.0	100.0	100.0	100.0	100.0
Below poverty level	9., 4	13.5	9.2	7.1	11.7	6.9	27.9	46.4	27,5
Above poverty level	90.6	86.5	90.8	92.9	88.3	93.1	72.1	53.6	72.5

Source: Data relate to income in 1976 from the March 1977 Current Population Survey. Income includes money wages or salary, net income from farm and nonfarm self-employment, and income from other sources; see "Definitions and Explanations" in the Appendix. From Current Population Reports. Series P-60, No. 107, "Money Income and Poverty Status of Families and Persons in the United States: 1976 (Advance Report)," and Series P-60, Nos. 101 and 105, and unpublished data.



### **Appendix**

#### **DEFINITIONS AND EXPLANATIONS**

Population coverage. With the exception of the total population shown in table A, all figures in this report relate to the civilian noninstitutional population. The total population shown in table B (211,792,000) differs from the estimated April 1, 1977 total civilian population (214,267,000) chiefly in excluding the institutional population. For the Current Population Survey, both the institutional and military components of the population are regarded as entirely nonfarm.

Farm population. In the Current Population Survey, as in the 1960 and 1970 Censuses, of Population, the farm population consists of all persons living in rural territory on places of 10 or more acres if as much as \$50 worth of agricultural products were sold from the place in the reporting year (for the CPS the preceding 12 months). 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 in the reporting year. Persons in institutions, summer camps, motels, and tourist camps, and those living on rented places where no land is used for farming, are classified as nonfarm.

From April 1960 through January 1976, farm residence was determined in the Current Population Survey by the responses to two questions. Owners are asked, "Does this place have 10 or more acres?" and renters are asked, "Does the place you rent have 10 or more acres?" If the response is "Yes," the respondent is asked, "During the past 12 months, did sales of crops, livestock, and other farm products from this place amount to \$50 or more?" If the acreage response is "No," the inquiry relates to sales of \$250 or more.

Beginning in February 1976, the second question was altered so that after responding either "Yes" or "No" to the acreage inquiry, owners/renters are asked, "During the past 12 months, how much did sales of crops, livestock and other farm products from this place amount to?" The respondents are given a choice of four answers: "\$1,000 or more," "\$250 to \$999," "\$50 to \$249," and "Under \$50."

The question was changed to enable identification of the farm population as defined previously (see above) and as defined under the new farm definition announced by the U.S. Department of Agriculture and the Bureau of the Census in August 1975. Under the new definition, a farm would be identified on the basis of sales alone; and would be defined as any place from which \$1,000 or more of agricultural products are sold, or would probably be sold, in the reporting year.

All of the farm figures presented in this report are based on the acreage/sales definition in use since 1960. Implementation of the new definition is being delayed, since Congress is currently considering further revisions in the farm definition.

Farms located within the boundaries of urban territory, comprising a small minority of all farms, are not treated as farms for population census purposes, and their population is not included in the farm population. Urban territory includes all places with a population of 2,500 or more and the densely settled urbanized fringe areas around cities of 50,000 or more. Beginning with the 1972 estimate, the estimated farm population is limited to the rural territory as determined in the 1970 Census of Population. In the Current Population Surveys of 1963 through 1971, the urban-rural boundaries used, were those of the 1960 Census of Population and did not take into account the annexations and other substantial expansions of urban territory that were incorporated into the 1970 Census of Population. The net effect was to classify an unknown number of persons as rural farm in the Current Population Surveys of 1970 and 1971 who were treated as urban (and hence nonfarm), in the 1970 census as well as in the Current Population Surveys beginning in 1972.

In the Current Population Survey, unmarried persons attending college away from home are enumerated as residents of their parents' homes, whereas in the Census of Population such persons are enumerated as residents of the communities in which they live while attending college. The effect of this difference is to classify a larger number of college-aged persons as farm residents in the Current Population Survey than would be so classified under decennial census usage.

Nonfarm population. The nonfarm population comprises all persons living in urban areas and all rural persons not on farms.

Five-quarter averages centered on April. April-centered annual averages of the farm population for the years 1970 through 1977 were computed by using data for the five quarters centered on the April date for which the estimate was being prepared. For example, for April 1977, quarterly estimates for the months of October 1976, and January, April, July, and October 1977, were used with a weight of one-eighth given to each of the two October estimates and a weight of one-fourth to each of the estimates for the other 3 months. One reason for the choice of April as the date for centering population estimates is that this is the decennial census month.

April-centered annual averages for persons under 14 years by race and sex, and for persons 14 years old and over, by race,



13

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sex, age, labor force characteristics, and region were also computed for 1977 by using data for the specified characteristics for the five quarters centered on April 1977.

Metropolitan-nonmetropolitan residence. The population residing in standard metropolitan statistical areas (SMSA's) constitutes the metropolitan population. The metropolitan population in this report is based on SMSA's as defined in the 1970 population census publications and does not include any subsequent additions or changes. For the 1970 census, except in New England, an SMSA was defined as a county or group of contiguous counties which contains at least one city of 50,000 inhabitants or more, or "twin cities" with a combined popula-.. tion of at least 50,000. In addition to the county, or counties, containing such a city or cities, contiguous counties were included in an SMSA, if, according to certain criteria, they were essentially metropolitan in character and were socially and economically integrated with the central county. In New England, SMSA's consist of towns and cities, rather than counties.

Geographic regions. The major regions of the United States for which data are presented represent groups of States, as follows:

North and West: Northeast, North Central, and West regions combined.

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

North Central: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Sputh Dakota, Wisconsin.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregion, Utah, Washington, Wyoming.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia.

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

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 Spanish origin. Persons of Spanish origin in this report were determined on the basis of a question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (or the origin of some other household member) from a "flash card" listing ethnic origins. Persons of Spanish origin, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South. American, or some other Spanish origin.

Family. The term "family," as used in this report, refers to a group of two or more persons related by blood, marriage, or adoption and residing together; all such persons are considered as members of the same family. Thus, if the son of the head of the bousehold and the son's wife are in the household, they are treated as part of the head's family. On the other hand, a lodger and his wife not related to the head of the household or an unrelated servant and his wife are considered as additional families, and not a part of the household head's family.

The mean size of family is derived by dividing the number of persons in families by the total number of families. In the classification of families by number of family members, the head of the family and all other persons in the family are included. The number of family members is the same as size of family.

Head of family. One person in each family was designated as the head. The head of a family is usually the person regarded as the head by members of the family. Women are not classified as heads if their husbands are resident members of the family at the time of the survey. Married couples related to the head of a family are included in the head's family and are not classified as separate families.

The Census Bureau has traditionally designated a head of household to serve as the central reference persons for the collection and tabulation of data for individual members of the household (or family). However, recent social changes have resulted in a trend toward recognition of more equal status for all members of the household (or family), making the term "head" less relevant in the analysis of household and family data. As a result, the Bureau is currently developing new techniques of enumeration and data presentation which will eliminate the concept of "head." While some of the data in this report are based on the concept of "head," methodology for future Census Bureau reports will reflect a gradual movement away from this traditional practice.

Type of family. The classification of families by type is based on the sex and marital status of héad. Families with a head and spouse present are itermed "married couple" families. Families in which the spouse of the head is not present are either "male head, no wife present" or "female head, no husband present."

Own children." "Own" children in a family are single (never married) sons and daughters, including stepchildren and adopted children, of the family head. In table 3, the mean number of own children is derived by dividing the number of children by the total number of families with own children under 18.

Marital status. The marital status classification identifies four major categories: single, married, widowed, and divorced. These terms refer to the marital status at the time of the enumeration.

The category "married" is further divided into "married, spouse present," "separated," and "other married, spouse absent." A person was classified as "married, spouse present" if the husband or wife was reported as a member of the household, even though he or she may have been temporarily absent on business or on vacation, visiting, in a hospital, etc., at the time of the enumeration. Persons reported as separated included



those with legal separations, those living apart with intentions of obtaining a divorce, and other persons permanently or temporarily separated because of marital discord. The group "other married, spouse absent" includes married persons living apart because either the husband or wife was employed and living at a considerable distance from home, was serving away from home in the Armed Forces, had moved to another area, or had a different place of residence for any other reason except separation as defined above.

Children ever born. The term "children ever born" refers to the total number of live births reported by women. Included in the number are children born to the woman before her present marriage, children no longer living, and children away from home, as well as children who were still living in the home.

Births to date. In the data on birth expectations in table E, the number of "births to date" has the same meaning as the number of children ever born.

Additional births expected. In the data on birth expectations in table E, the number of "additional births expected" refers to any births a woman expects in addition to the children she has already borne, if any.

Lifetime births expected. In the data on birth expectations in table E, the number of "lifetime births expected refers to the sum of births to date and additional births expected. The sum represents the total number of births a woman expects during her lifetime."

Labor force and employment status. The definitions of labor force and employment status in this report relate to the population 14 years old and over.

Labor force. Persons are classified as in the labor force if they were employed as civilians, unemployed, or in the Armed Forces during the survey week. The "civilian labor force" is comprised of all civilians classified as employed or unemployed.

Employed. Employed persons comprise (1) all civilians who, during the specified week, clid any work at all 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, and (2) all those who 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 time off for personal reasons, whether or not they were paid by their employers for time off, and whether or not they were seeking other jobs. Excluded from the employed group are persons whose only activity consisted of work around the house (such as own home housework, painting or repairing own home, etc.) or volunteer work for religious, charitable, and similar organizations.

Unemployed. Unemployed persons are those civilians 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, such as registering at a public

or private employment office, meeting with prospective employers, checking with friends or relatives, placing or answering advertisements, writing letters of application, or being on a union or professional register; (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 who are not classified as employed or unemployed are defined as "not in the labor force." This group who are neither employed nor seeking work includes persons engaged only in own home housework, attending school, or unable to work because of longterm physical or mental illness; persons who are retired or too old to work; seasonal workers for whom the survey week fell in an off season; and the voluntarily idle. Persons doing only unpaid family work (less than 15 hours) are also classified as not in the labor force.

Agriculture. The industry category "agriculture" is somewhat more inclusive than the total of the two major occupation groups, "farmers and farm managers" and "farm laborers, and supervisors." It also includes (1) persons employed on farms in occupations such as truck driver, mechanic, and bookkeeper, and (2) persons engaged in certain activities other than strictly farm operation such as cotton ginning, contract farm services, veterinary and breeding services, hatcheries experimental stations, greenhouses, landscape gardening, tree service, trapping, hunting preserves, and kennels.

Nonagricultural/industries. This category includes all industries not specifically classed under agriculture.

Multiple jobs. Persons with two or more jobs during the survey week were classified as employed in the industry in which they worked the greatest number of hours during the week. Consequently, some of the persons shown in this report as engaged in nonagricultural activities also engaged in agriculture and vice versa.

#### Class of Worker

Self-employed workers. Persons who worked for profit or fees in their own business, profession, or trade, or who operated a farm either as an owner or tenant.

Wage and salary workers. Persons who worked for any governmental unit or private employer for wages, salary, commission, tips, pay "in kind," or at piece rates.

Unpaid family workers. Persons who worked without pay on a farm or in a business operated by a person to whom they are related by blood or marriage.

Income. Total money income is the algebraic sum of the amounts received in the preceding calendar year from each of the following sources: (1) Maney wages or salary; (2) net income from nonfarm self-employment; (3) net income from farm self-employment; (4) Social Security or railroad retirement, (5) dividends, interest (on savings or bonds), income



from estates or trusts, or net rental income; (6) public assistance or welfare payments; (7) unemployment and workmen's compensation, government employee pensions, or veterans payments; (8) private pensions, annuities, alimony, regular contributions from persons not living in this household, and other periodic income.

Receipts from the following sources are not included as income: (1) Money received from the sale of property, such as stocks, bonds, a house, or a car (unless the person was engaged in the business of selling such property, in which case the net proceeds would be counted as income from self-employment); (2) withdrawals of bank deposits; (3) money borrowed; (4) tax refunds; (5) gifts; and (6) lump-sum inheritances or insurance payments.

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

In the income distribution for families, the lowest income group (less than \$4,000) includes those families who were classified as having no income in the income year and those reporting a loss in net Income from farm and nonfarm self-employment or in rental income. Many of these were living on income "in kind," savings, or gifts; or were newly constituted families, or families in which the sole breadwinner had recently died or had left the household. However, many of the families who reported no income probably had some money income which was not recorded in the survey.

It should be noted that although the income statistics refer to receipts during the preceding year, the composition of families refers to the time of the survey. The income of the family does not include amounts received by persons who were members of the family during all or part of the income year if these persons no longer resided with the family at the time of enumeration. On the other hand, family income includes amounts reported by related persons who clid not reside with the family during the income year but who were members of the family at the time of enumeration.

The median income is the amount which divides the distribution into two equal groups, one having incomes above the median, and the other having incomes below the median. The medians for families are based on all families.

Poverty (low-income) classification. Families and unrelated individuals are classified as being above or below the poverty level using the poverty index adopted by a Federal Interagency Committee in 1969. This index is based on the Department of Agriculture's 1961 Economy Food Plan and reflects the different consumption requirements of families based on their size and composition, sex and age of the family head, and farm-nonfarm residence. It was determined from the Department of Agriculture's 1955 survey of food consumption that families of three or more persons spend approximately one third of their income on food; the poverty level for these families was, therefore, set at three times the cost of the economy food plan. For smaller families and persons living alone, the cost of the economy food plan was multiplied by factors that were slightly higher in order to compensate for the relatively larger, fixed expenses of these smaller households. The poverty thresholds are updated every year to reflect changes in the Consumer Price hodex (CPI). The poverty threshold for a farm family of four was \$4,950 in 1976, about 5.5 percent higher than the comparable 1975 cutoff of \$4,695. Corresponding poverty thresholds for a nonfarm family of four were \$5,815 in 1976 and \$5,500 in 1975. For further details, see Current Population Reports, Series P-60, No. 115.

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.

Symbols. A dash "-" represents zero or a number which rounds to zero. The symbol "B" means that the base for the derived figure is less than 75,000; and three dots "..." mean not applicable.

Rounding. The individual figures in this report are rounded to the nearest thousand. With few exceptions, the individual figures 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. Percentages are based on the rounded absolute numbers.

# SOURCE AND RELIABILITY OF THE ESTIMATES

Source of Data

Most of the estimates in this report are April-centered five-quarter averages of data collected in 1960 through 1977 from the Current Population Survey (CPS) of the Bureau of the Census. The monthly CPS deals mainly with labor force data for the civilian noninstitutional population. Questions relating to labor force participation are asked about each member 14 years old and older in each sample household. Data on fertility and birth expectations, income and low income status for the year 1976; and household and family characteristics of farm and nonfarm families are not based on five-quarter averages. These types of data are obtained from supplementary questions to CPS asked in the months of March and June (fertility) 1977. The farm and nonfarm residence data for persons are April centered five-quarter averages.

The present CPS sample was initially selected from the 1970 census files and is updated continuously to reflect new construction where possible (see section "Nonsampling Variability" below). The monthly CPS sample is spread over 461 areas with coverage in each of the 50 States and the District of Columbia. A supplementary sample of housing units in 24 States and the District of Columbia was incorporated with the monthly CPS sample to produce the March and June 1977 data. The expanded CPS sample is located in 614 areas comprising 1 113 counties; independent cities, and divisions in the nation. The 614 sample areas used in March and June include 461 areas from the monthly CPS and 153 supplementary areas.



Samples for previous sample designs were selected from files from the most recently completed census. The following table provides a description of some aspects of the CPS sample designs in use during the referenced data-collection period.

The estimation procedure used for monthly CPS data involves the inflation of the weighted sample results to independent estimates of the civilian noninstitutional population of the United States by age, race, and sex. These independent estimates were based on statistics from decennial censuses, statistics on births, deaths, immigration,

and emigration; and statistics on the strength of the Armed Forces. For the estimates from March CPS data in this report, some persons in the Armed Forces were included. The estimation procedure in March for the data in the report also involves a further adjustment so that husband and wife of a household received the same weight.

Decennial Census of Population. Decennial census data in this report are based on complete counts or on the samples associated with the census as indicated in the list of sources: Descriptions of samples from the census are found in the

#### Description of the Current Population Survey

	Number of	Households	Housing units .	
Time period	Sample areas <sup>1</sup>	Interviewed	Not Interviewed	visited, not eligible?
	7.	-		
Supplemental sample	153)	8,500†	500	1,500
August 1972 to present	461	45,000	2,000	8,000
August 1971 to July 1972	449	45,000	2,000	8,000
January 1967 to July 1971	449	48,000	2-,000	8,500
March 1963 to December 1966:	357	33,500	1,500	6,000
January 1960 to February 1963	333	33,500	1,500	6,000

<sup>1</sup>Except for the supplemental sample, these areas were chosen to provide coverage in each State and the District of Columbia.

These are housing units which were veited, but were found to be vacant or otherwise not eligible for interview.

Note: Prior to 1966, income data were collected from approximately 75 percent of occupied housing units in CPS.

appropriate, census publications. To determine if the 1960 and 1970 data in the text tables of this report are based on complete counts or on the samples associated with the census refer to the sources of data at the bottom of that table.

#### Reliability of the Estimates

Since the estimates in these tables are based on a sample, they may differ somewhat from the figures that would have been 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 survey—sampling and nonsampling. The standard errors provided for this report primarily indicate the magnitude of the sampling errors. They 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 the nonsampling error is unknown. Consequently, particular care should be exercised in the interpretation of figures based on a relatively small number of cases or on small differences between estimates.

Nonsampling variability. Nonsampling errors can be attributed to many sources, e.g., inability to obtain information about all cases in the sample, definitional difficulties, differences in the interpretation of questions, inability or unwillingness to provide correct information on the part of respondents, inability to recall information, errors made in collection such as in recording or coding the data, errors made in processing the data, errors made in estimating values for missing data and failure to represent all units with the sample (undergoverage).

Undercoverage in the CPS results from missed housing units and missed persons within sample households. Overall undercoverage, as compared to the level of the decennial census, is about 5 percent. It is known that CPS undercoverage varies with age, sex, and race. Generally, undercoverage is larger for males than for females and larger for Blacks and other taces than for Whites. Ratio estimation to independent age sex race population controls, as described previously, partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different charac-



Table A-1. Standard Errors of Estimated Numbers of Persons or Families in the Farm population

(68 chances out of 100. Numbers in thousands)

Size of estimate	Standard error
25	8 11 16 25 35 49 78 109 152 184

Note: For standard errors for metropolitan or nonmetropolitan data, or regional (North and West, South) data, multiply the standard errors above by 1.4.

teristics than interviewed persons in the same age-sex-race group. Further, the independent population controls used have not been adjusted for undercoverage in the 1970 census, which was estimated at 2.5 percent of the population with similar undercoverage differentials by age, sex, and face as is observed in CPS.

The approximate magnitude of two sources of under coverage in CPS is known. About 600,000 conventional new construction units (housing units, other than mobile homes or group quarters) were issued building permits prior to the 1970 census but building was not completed by the time of the census (i.e., April 1970); these units have no representation in the CPS sample. Most conventional new construction for which building permits were issued after 1969 is represented. About 290,000 occupied mobile homes are not represented in CPS; these units were either missed in the census or have been built or occupied since the census. These estimates of missed units are relevant to the present sample only and not to earlier designs where the extent of undercoverage was generally less. The extent of other sources of undercoverage is unknown but believed to be small.

In most cases the schedule entires for income are based on the memory or knowledge of one person, usually the wife of the family head. The memory factor in data derived from field surveys of income probably produces underestimates because the tendency is to forget minor or irregular sources of income. Other errors of reporting are due to misrepresentation or to misunderstanding as to the scope of the income concept.

Comparability with other data. Data obtained from the CPS and other sources are not entirely comparable. This is due to large part to differences in interviewer training and experi-

Table A-2. Standard Errors of Estimated Numbers of Persons or Families in the Total or Nonfarm Population

(68 chances out of 100. Numbers in thousands)

Size of estimate	Standard error							
25	5 7 10 16 23 33 52							
5,000	73 102 123 155 204 241 223							

Note: For standard errors for metropolitan data, or regional (North and West, South) data, multiply the standard errors above by 1.4.

 $^{1}$ To derive the standard errors for an estimate greater than 150,000,000 use formula (2).

ence and in differing collection procedures. These differences are not reflected in the standard errors provided. Therefore, caution should be used in comparing results between different sources.

Caltion should also be used in comparing estimates from 1977, when the expanded sample was used, to those from 1976 and earlier years. Some relatively trge differences in estimates of population in metropolit, and nonmetropolitan areas have been observed between the 461 and the 614 area samples. These differences in lect a relatively large increase in variance on those estimates and do not represent actual-changes in the population.

Sampling variability. The standard errors given in the following tables are primarily measures of sampling variability, that is, of the variations that occurred by chance because a sample rather than the whole of the population was surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a complete census figure by less than the standard error. The chances are about 90 out of 100 that this difference would be less than 1.6 times the standard error and about 95 out of 100 that the difference would be less than twice the standard error.

All statements of comparison appearing in the text are significant at a 1.6 standard error level or better, and most

rare significant at a level of more than 2.0 standard errors. This means that for most differences cited in the text, the estimated difference is greater than twice the standard error of the difference. Statements of comparison qualified in some way (e.g., by use of the phrase, "some evidence") have a level of significance between 1.6 and 2.0 standard errors.

Note when using small estimates. Percentage distributions are shown in this report only when the base of the percentage is 75,000 or greater. Because of the large standard errors involved, there is little chance that percentages would reveal useful information when computed on a smaller base. Estimated numbers are shown, however, even though the relative standard errors of these numbers are larger than those for the corresponding percentages. These smaller estimates are provided primarily to permit such combinations of the categories as serve each user's needs.

Standard errors for data based on the decennial census. Sampling errors of all data from the samples of the decennial censuses shown in this report except for fertility are small enough to be disregarded. The standard errors for census sample data may be found in the appropriate census volumes.

Standard error tables and their use. In order to derive standard errors that would be applicable to a large number of estimates and could be prepared at a moderate cost, a number of approximations were required. Therefore, instead of providing an individual standard error for each estimate, generalized sets of standard errors are provided for various types of characteristics. As a result, the sets of standard errors provided give an indication of the order of magnitude of the standard error of an estimate rather than the precise standard error.

The figures presented in tables A-1, A-2, A-3, and A-4, provide approximations to the standard errors of various estimates for families and unrelated individuals and for persons. Estimated standard errors cannot be obtained from tables A-1, A-2, A-3, and A-4 without the use of the factors in table A-6. Table, A-5 provides approximations to the standard errors of estimated fertility rates for the nonfarm population. Estimated standard errors cannot be obtained from table A-5 without the use of the bases in table A-7. The factors in table A-6 must be applied to the generalized standard errors in order to adjust for the combined effect of sample design and the estimating procedure on the value of the characteristic. The standard error tables with which each factor should be used are indicated in table A-6. Standard errors for intermediate values not shown in the generalized tables of standard errors may be approximated by interpolation.

Two parameters (denoted "a" and "b") are used to calculate standard errors for each type of characteristic; they are presented in table A-6. These parameters were used to calculate the standard errors in tables A-1, A-2, A-3 and A-4 and to calculate the factors in table A-6. They also may be used to calculate the standard errors for estimated numbers and estimated percentages directly. Methods for direct computation are given in the following sections.

Standard errors of estimated numbers. The approximate standard error,  $\sigma_{\rm X}$ , of an estimated number shown in this report can be obtained in two ways. It may be obtained by use of the formula

$$\sigma_{\mathbf{x}} = \mathbf{f}\sigma \tag{1}$$

where f is the appropriate factor from table A-6 and o is the standard error on the estimate obtained by interpolation from table A-1 or A-2. Alternatively, standard errors may be approximated by formula (2) from which the standard errors were calculated in tables A-1 and A-2. Use of this formula will provide more accurate results than the use of the formula (1) above.

$$\sigma_{x} = \sqrt{ax^{2} + bx}$$

Here x is the size of the estimate and a and b are the parameters in table A-6 associated with the particular type of characteristic.

Standard errors of estimated percentages. The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends on both the size of the percentage and the size of the total upon which this percentage is based. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages particularly if the percentages are 50 percent or more. When the numerator and denominator of the percentage are in different categories, use the factor or parameters indicated by the numerator. The approximate standard error,  $\sigma_{\{\chi,p\}}$ , of an estimated percentage can be obtained by use of the formula

$$\sigma_{(\mathbf{x},\mathbf{p})} = \mathbf{f}\sigma \tag{3}$$

In this formula f is the appropriate factor from table A-6 and,  $\sigma$  is the standard error on the estimate from table A-3 or A-4. Alternatively, the standard errors may be approximated by formula (4), from which the standard errors in table A-3 and A-4 were calculated; direct computation will give more accurate results than use of the standard error table and the factors.

$$\sigma_{(\mathbf{x},\mathbf{p})} = \sqrt{\frac{\mathbf{b}}{\mathbf{x}} \cdot \mathbf{p} \left(100 \cdot \mathbf{p}\right)} \tag{4}$$

Here x is the size of the subclass of persons or families and unrelated individuals which is the base of the percentage, p is the percentage ( $0 \le p \le 100$ ), and b is the parameter in table A-6 associated with the particular type of characteristic in the numerator of the percentage.

Illustration of the use of standard error tables. Table F of this report shows that in 1977 there were 3,462,000 persons employed in agriculture. Table A-6 shows that the appropriate factor is 0.9 and that this factor is to be used with the standard errors in table A-1. Table A-1 shows the standard



error on an estimate of this size to be approximately 90,000. Applying the factor of 0.9 and using formula (1), the approximate standard error is 0.9 x 90,000 = 81,000. The chances are 68 out of 100 that the estimate would have been a figure differing from a complete census figure by less than 81,000. The chances are 95 out of 100 that the estimate would have differed from a complete census figure by less than 162,000 (twice the standard error).

Of these 3,462,000 persons employed in agriculture 2,795,000 or 80.7 percent are males. From Table A 6 the appropriate b parameter for computing standard errors is 2050; using formula (4), the standard error of an estimate of 80.7 percent is

$$\sqrt{\frac{2050}{3,462,000}}$$
 (80.7) (100 - 80.7)  $\pm$  1.0 percent.

Consequently, chances are 68 out of 100 that the estimated 80.7 percent would be within 1.0 percentage points of a complete census figure, Chances are 95 out of 100 that the estimate would be within 2.0 percentage points of a complete census figure, i.e., the 95 percent confidence interval would be from 78.7 to 82.7 percent.

Standard error of a difference. For a difference between two sample estimates, the standard error is approximately equal to

$$\sigma_{(\mathbf{x}\cdot\mathbf{y})} = \sqrt{\sigma_{\mathbf{x}}^2 + \sigma_{\mathbf{y}}^2 - \sigma_{\mathbf{y}}^2} \tag{5}$$

where  $\sigma_{\rm X}$  and  $\sigma_{\rm Y}$  are the standard errors of the estimates  $\dot{\rm X}$  and  $\dot{\rm Y}$ ; the estimates can be of numbers, percents, averages, etc. This will represent the actual standard error quite accurately for the difference between two estimates of the same characteristic in two different areas, or for the difference between two separate and uncorrelated characteristics in the same area. If, however, there is a high positive correlation between the two characteristics, the formula will overestimate the true standard error.

Illustration of the computation of the standard error of a difference. Table 1 of this report shows that there were 4,072,000 males and 3,734,000 females on farms in 1977. The estimated difference between the number of males on farms and the number of females on farms is 338,000.

 Using formula (2) and the appropriate parameters from table A-6, the standard error on the estimate of 4,072,000 males on farms is 99,000.

Similarly the approximate standard error on the estimate of 3,734,000 females on farms is 95,000. Therefore, from formula (5) the approximate standard error on the estimated difference of 338,000 persons is

$$137,000 \div \sqrt{(99,000)^2 + (95,000)^2}$$

This means the chances are 68 out of 100 that the estimated difference based on the sample estimates would vary from the difference derived using complete census figures by less than 137,000 persons. The 68 percent confidence interval about the 338,000 persons difference is from 201,000 to 475,000, i.e., 338,000 ± 137,000. A conclusion that the average estimate of the difference derived from all possible samples of the same-size and design lies within a range computed in this way would be correct for roughly 68 percent of all possible samples. The 95 percent confidence interval is 64,000 to 612,000. Thus, we can conclude with 95 percent confidence that there was a significant difference in the number of males and females on farms in 1977.

Standard error of a ratio. Certain mean values for persons in families shown in the tables of this report were calculated as the ratio of two numbers. For example, the mean number of persons per family is calculated as

- total number of persons in families
- y total number of families

Standard errors for these means may be approximated as shown below. There are two cases to consider. In either case, the denominator y represents a count of families of a certain class, and the numerator x represents a count of persons with the characteristic under consideration who are members of these families.

Case 1: There is at least one person having the characteristic in every family of the class: as for example, the mean number of persons per family or the mean number of persons per family with a male head. For ratios of this kind, the standard error is approximated by the following formula:

$$\sqrt{\frac{x}{y}} = \sqrt{\left(\frac{x}{y}\right)^2 \left[\left(\frac{\sigma}{y}\right)^2 + \left(\frac{\sigma}{x}\right)^2 - 2\rho \cdot \left(\frac{\sigma}{x}\right)\left(\frac{\sigma}{y}\right)\right]}$$
(6)

The standard error of the estimated number of families,  $\sigma_{\rm V}$ , and the standard error of the estimated number of persons with the characteristic in those families,  $\sigma_{\rm X}$ , may be calculated by the methods described above. In formula (6),  $\rho$  represents the correlation coefficient between the numerator and the denominator of the estimate. In the above examples, and for other ratios of this kind, use 0.7 as an estimate of  $\rho$ .

Case 2: The number of persons having the characteristic in a given family may be 0, 1, 2, 3, or more: for example, the mean number of persons under 18 years of age. For ratios of this kind the standard error is approximated by formula (6) but pois assumed to be zero. If p is actually positive, then this procedure will provide an overestimate of the standard error of the ratio.

<sup>\*</sup>Using an "a" parameter of 0.000017 and a "b" parameter of 2050 from table A-8, formula (2) gives a standard error of 83,000.

Table A-3. Standard Errors of Estimated Percentages of Persons or Families in the Farm Population

Base of percentages (thousands)	Estimated percentages									
	,1 or 99	2 or 98	5 or 95	10 or 90	25 pr 75	50				
25	3.1	4.4	. 6.8	9.4	13.6					
50 100 250	2.2 1.6 1.0	$\begin{array}{c} 3.1 \\ 2.2 \\ 1.4 \end{array}$	4.8 3.4 2.2			11.1				
500 1,000	0.7	1.0	1.5 1.1	2.1 1.5	4.3 3.0 2.1	5.0 3.5 2.5				
2,500 5,000	0.3	0.4	0.7	0.9	1.4	1.6				
10,000 15,000	0.2 . 0.13	0.2 0.2	0.3 0.3	0.5 0.4	0.7 0.6	0.6				

Note: For standard errors for metropolitan or nonmetropolitan data, or regional (North and West, South) data, multiply appropriate standard errors above by 1.4.

Table A-4. Standard Errors of Estimated Percentages of Persons or Families in the Total or Nonfarm Population

<del></del>					- NO.		
• •	•	•	, 1	Estimated	percentage	s -	
Base of percentages (th	ousands)	<u> </u>	· · · · · ·	- ''	<del></del>	· · · · · ·	<del></del>
	•	1 or 99	2 or 98	5 or 35	10 or 90	25 or 75	50 5
25	• • • • • • • • • • • • • • • • • • • •	2.1	2.9	4.5	6.2	9.0	10.4
50		1 115	2.13	3.2	4.4	6.4	7.4
100		1.0	1.5	2.3	, 3.1	4.5	5.2
250		0.7	0.9	1.4	2.0	2.8	3.3.
500		0.5	0.7	1.0	1.4	2.0	2.3
1,000		0.3	0.5	.0.7	1.0	1.4	1.6
2,500.4	,	0.2	0.3	0.5	0.6	0.9	1.0
5,000	• • • • • • • • •	0.15	0.2	0.3	0.4	0.6	0.7
10,000		0.10	0.15	0.2	0.3	0.5 .	0.5
15,000		0.08	0.12	0.19	0.3	0.4	0.4
25,000		0.07	0.09	0.14	0.2	0.3	0.3
50,000		0.05	0.07	0.10	0.14	0.2	0.2
100,000		0.03	0.05	0.07	0.10	0.14	0.16
150,000	•••••	0.03	→ [0.04]	0.06	0.08	0.12	0.13
200,000		0.02	ີ`0.03	0.05	0.07	0.10	0.12
216,000		0.02	0.03	0.05	0.07	0.10	0.11

Note: For standard errors for metropolitan or nonmetropolitan data, or regional (North and  $\frac{1}{2}$  West, South) data, multiply appropriate standard errors above by 1.4.



Standard error of a fertility ratio. Table A.5 provides standard errors for both number of children ever born and the number of expected lifetime births per 1,000 women.<sup>2</sup> The sampling variability on the ratio of children born per 1,000 women depends on the shape of the distribution on which the ratio is based, the size of the sample, the sample design and the use of ratio estimates.

Illustration of the computation of the standard error of a fertility ratio. Table E shows that in 1977 there were 3,288 children ever born per 1,000 ever married farm women aged

35 to 39. Table A-7 shows that there were about 250,000 women in this group. Table A-5 shows the standard error of a rate of 3,288 children on a base of 250,000 women to be approximately 257. Multiplying the standard error of 257 by 1.2 (factor for fertility standard errors of the farm population), the standard error becomes 308. Consequently, the chances are 68 out of 100 that the estimate would have shown a fertility rate differing from a complete census figure by less than 308. The chances are 95 out of 100 that the estimate would have shown a fertility rate differing from a complete census figure by less than 616 (twice the standard error), i.e., the 95 percent confidence interval would be between 2,672 and 3,904 children ever-born per 1,000 ever-married farm women aged 35 to 39.

Table A-5. Standard Errors of Estimated Fertility Rates for the Nonfarm Population

	Children ever born per 1,000 women							
Number of women (thousands)	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000
250. 500. 750. 1,000. 2,000. 5,000. 10,000. 15,000. 20,000. 25,000. 30,000.	51 36 30 26 18 11 9 7 6 5	93 66 54 47 33 20 15 12 11	129 92 74 65 45 29 20 16 15 12 12	164 116 95 82 58 37 26 21 19 16 15	198 140 114 99 70 44 31 26 23 20 19	234 166 135 117 83 52 38 29 27 24 22	274 194 158 137 97 61 44 35 31 28 25	315 222 181 158 112 70 50 41 35
35,000	l ;	7	10	12	15	18	21	24

Note: Multiply the above standard errors by 1.2 to obtain the standard errors for fertility of the farm population.



<sup>&</sup>lt;sup>5</sup> The bases for the estimated fertility rates are given in table A-7 of for use with table A-5 to obtain estimated standard errors.

Table A-6. Parameters and Factors to be Used to Obtain Standard Errors for Each Type of Characteristic

Type of characteristig .	, Parai	neters	f	Standard error tables	
	а	b	Factors		
Five-Quarter Averages			٠.		
Farm population (race, age, mex, and employment		200		***	
subsets)	,				
Total, agriculture employment, or	,	,	,		
nonagriculture employment					
All races	-0.000014 -0.000017	2455 3316	1.0	A-1, A-	
Unemployed	-0.000017	3310	1.2	A-1, A-	
Total or White	-0.000006	1054	0.7	A-1, A-	
Black and other races	-0.000053	1211	0.7	A-1, A-	
Spanish origin	-0.000008	1497	0.8	A-1, A-	
Total or nonfarm population		•	, , , , , , , , , , , , , , , , , , ,		
Agriculture employment			, '· ·	•	
All races	-0.000017	2050	0.0	A-1, A-	
Spanish origin	-0.000027	3720	1.2	A-1, A-	
Nonagriculture employment					
Total or White	-0.000005 -0.000069	1081 1081	1.0	A-2, A-	
Spanish origin	-0.000009	1456	1, 0 1, 2	A-2, A- A-2, A-	
	0.000020	1430	1.2	A-2, A-	
onthly Averages					
	. ,	<b>.</b>	•		
amily-type or size			4 1	v d	
Farm population Total or White	0.000015	0006	A service great		
Black and other races	-0.000015 -0.000128	.2986 2698	1.1	A-1, A-	
Spanish origin	-0.000029	3057	1.1	A-1, A- A-1, A-	
Total or nonfarm population			7.2	2,	
Total or White	-0.000010	1389	1.1	A-2 . A-	
Black and other races	-0.000087	1255	1.1	A-2, A-	
Spanish origin	-0.000020	1422	1.1	Á-2, A-	
amily Income and Low Income		, ,		6	
Farm population	:			•	
Total or White	-0.000012	2285	1.0	A-1, A-	
Black and other races	-0.000094 -0.000029	1982	* 0.9	A-1, A-	
. , , , ,	-0.000029	3057	1.1	A-1., A-	
Total or white	0.000000	·			
Total or White	-0.000008 -0.000064	1063 922	1.0	A-2, A- A-2, A-	
Spanish origin	-0.000004	1422	1.1	A-2, A- A-2, A-	
ertility					
(Number of women)		, •			
Farm population	· .	• ,	1		
All races	-0.000026	3369	1.2	A-1, A-	
Spanish origin	-0.000049	5154	1.4	A-1, A-	
Total or nonfarm population	·			•	
All races	-0.000018	1567	1.2	A-2, A-	
Spanish origin	-0.000033	. 2397	1.5	A-2, A-	

Note: For metropolitan-nonmetropolitan data or regional (North and West, South) data cross-tabulated with other data, apply a factor of 2.0 to the parameters for the characteristic of interest.

For data collected from 1960 through 1966, multiply the above "a" and "b" parameters by 1.5; multiply the above "f" factors by 1.2.



Table A-7. Estimates of the Number of Women and Number of Women Reporting Birth Expectations, by Age and Farm-Nonfarm Residence: July 1977 CPS

(Numbers in thousands)

	The state of the s	<u> </u>		
Women by age	Total	Farm	Nonfarm	
Total, 18 to 44 years	42,580 14,049 8,857 7,697 6,267 5,710	1,275 408 172 216 250 229	41,/305 13,641 8,685 7,481 6,017 5,481	
18 to 39 years, reporting birth expectations	29,213	800	28,414	

Source: U.S. Bureau of the Census, Current Population Survey, June 1977.