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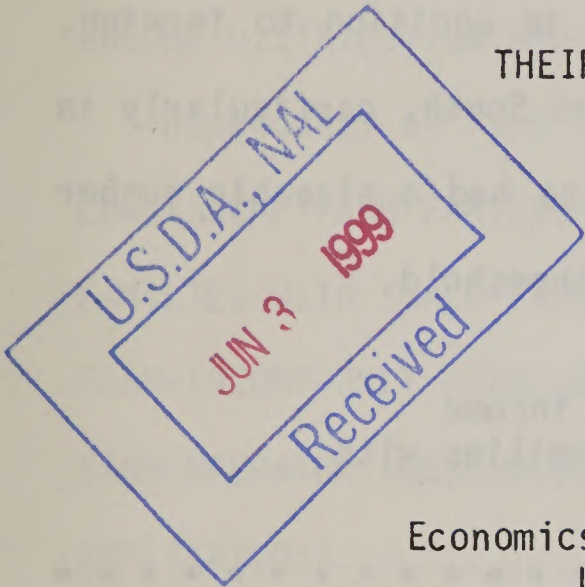
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FAMILIES WITH FARM INCOME,  
THEIR INCOME, INCOME DISTRIBUTION, AND  
INCOME SOURCES



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November 1979

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ABSTRACT

This report utilizes data from the Farm Family Living Expenditures Survey of 1973. Nationally, total income for farm families is becoming more equally distributed. Low-farm incomes or even negative farm income does not necessarily indicate a low family income because over 90 percent of the families had income from at least one other source in addition to farming. Most low-income farm families were concentrated in the South, particularly in the Appalachian and Delta region. The Corn Belt also had a sizeable number of farm families whose income was below the poverty threshold.

Keywords: Net farm income, off-farm income, income, income sources, small farms, low-income farms, families with farm income.

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## SUMMARY

The downward trend in the proportion of U. S. personal income attributable to farming established in the 1930-40 period has continued into the seventies. Farming now contributes less than 3 percent of U.S. total personal income. The percentage by regions, however, varies widely.

Only 1 in 12 farm families depended entirely on farming as their income source in 1973. The remaining 92 percent had income from at least one non-farm source in addition to farm income. Almost 8 in 10 of the households had income from wages and salaries, the most important source of nonfarm income. Generally, as total family income rose, the portion from wages and salaries rose, except at the highest income levels.

Farm families reporting farm profits had a significantly higher average total income than those families reporting farm losses. Those operators reporting farm losses were generally younger, had a higher wage and salary earnings, and had less total income from non-work sources, such as dividends, rents, and royalties. The size of farm loss was generally small.

The greatest inequality of total income was between farm families in the Northern Plains and those in the Mountain region. The greatest inequality of farm family income occurred in the regions of high concentration of small farms, such as Appalachia.

Most low-income farm families are located in the South (Appalachia, Southeast, and Delta) and are associated with the older farm households. The absence of a full-time wage earner in the household contributes to the low-income problem. The farm-income-only households have a much higher probability of being in the low-income category than do those households reporting income from both farm and nonfarm sources.

Small farm businesses and low-income farm households are not synonymous. Low-farm income may contribute to a low-household income, but except in the case of the farm-income-only households, it is not the sole cause of farm poverty. Many farms with low farm sales (less than \$20,000) had household incomes above the poverty level. For example, two in five of the farmers reporting farm sales of less than \$2,500 in 1973 had family net money incomes of \$10,000 or more.

Families with farm income only had average farm sales almost four times as great as those families who had farm and nonfarm income. The farm-income-only operator was younger and had a slightly larger family unit than those operators with both farm and nonfarm income. More farm families in the Northern Plains depended on farm income as their sole source of income than in any of the other regions.

Income from nonfarm sources make up over half of the income of persons reporting farm income. The degree of dependency on farming for family income was lowest in the Appalachian and highest in the Lake States regions. In

the Northeast, Appalachian, Southeast, Delta and Pacific regions, income from wages and salaries exceed income from farming. Corn Belt operators earned the greatest dollar amount from off-farm jobs; however, these earnings were less than farm earnings in the region. Social Security payments are increasing in importance as an income source in all regions primarily because the number eligible and the payment per recipient is increasing. Few of the households reporting farm income were welfare recipients and most of those who were recipients were located in the Delta region.

FAMILIES WITH FARM INCOMES, THEIR INCOME,  
INCOME DISTRIBUTION, AND INCOME SOURCES

by

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INTRODUCTION

Farm families have traditionally been viewed as depending almost exclusively on farming as their primary income source. However, in recent decades off-farm income of farm families has become increasingly important until today total nonfarm income received by farm families exceeds the income these families receive from farming. Growth in off-farm income ranks as one of the major developments affecting the well-being of farm families in recent years. Not only has the dollar amount of off-farm income received by farm families increased but the diversity of off-farm income sources has increased. Farm families now receive income from much the same sources as nonfarm families in addition to income from farming.

Farm policymakers have focused largely on aspects of farm business and less on the role nonfarm income plays in the total well-being of farm families. This leads to confusion about the characteristics of components of the farm population. For example, the distinction between low-income farm households and small farm households has often been ignored because it was assumed they were identical. But they are not necessarily the same households. Because farm families receive income from a variety of sources, the probability of a household with a small farm business receiving a low family income is small. An analysis of income data for families reporting farm income in

the United States by Larson (11)<sup>1/</sup> revealed that in 1970 a wide range of family income existed within each of several farm size classes. For example, farms reporting gross farm sales of less than \$5,000 had low net farm incomes, about \$1,200, but averaged \$7,200 from off-farm sources. Obviously, these households in 1970 could not be classified as low income. Thus, the economic well-being of a majority of farm families is closely linked to the nonfarm sector and the dependency has been growing.<sup>2/</sup>

This report examines several characteristics of farm households including some factors associated with their economic well-being.

### Objectives

This study examines the level, sources, and personal distribution of income of families with farm income and inquires into the income of four broad farm-operator family groups. These groups are:

- (1) low-income farm operator households;
- (2) households associated with small farms;
- (3) households dependent solely on farming; and
- (4) households dependent primarily on off-farm income.

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<sup>1/</sup> Underscored numbers in parentheses refer to the list of references at the end of the report.

<sup>2/</sup> Evidence supporting the growing importance of off-farm income to farm families has been shown by several national and state studies (3, 4, 5; 6; 7; 8; 9, 10, 11, 12, 13; 17, 18, 19; 20; 22; 25). Despite the findings in these and other studies, visible gaps still exist in knowledge about personal income of farm people and characteristics of their households.

### Source of Data<sup>3/</sup>

Data used in this report were obtained primarily from the 1973 Farm Family Living Expenditures Survey conducted by the Statistical Reporting Service (now part of Economics, Statistics, and Cooperatives Service). The major purposes of the survey were:

- (1) to provide weights reflecting farm-operator family living expenditure patterns for a recent year to use in calculating the index of prices paid by farmers for commodities and services, including interest, taxes, and farm wage rates;
- (2) to provide benchmark data for estimating farm family living expenses and budgets, and
- (3) to provide estimates of many farm family living expenditures not available from other sources.

Respondents were visited three times with the initial interview in April 1973, and the subsequent visits in July 1973, and January 1974. Information on annual income and assets, the primary concern of this study, was collected during the January 1974 visit.

A two-stage sample design was used and the primary sampling units consisted of 121 counties, where each county in the Nation had a chance to be selected. Certain segments of land within each primary sampling unit were selected such that all farms, regardless of size, had the same chance of being selected.

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<sup>3/</sup> This section is based on "Farm-Operator Family Living Expenditures for 1973," U.S. Department of Agriculture, Statistical Reporting Service, Crop Reporting Board. SPSy 6(9-75), Sept. 1975, pp. 3-6.

Completed questionnaires were obtained from 2,621, or 81 percent of the 3,251 eligible farm operators in the total national sample. The survey expansion factors were adjusted to account for the 19-percent incompleteness.

The income data presented are in terms of net family money income before taxes. It includes net income from the farm arrived at by deducting operating expenses from gross farm income; net income from nonfarm business or professional practices, including the value of goods and services withdrawn for personal use from nonfarm businesses; wages or salaries before any deductions; Armed Forces pay (reserve duty pay and/or quarters and subsistence allowances); Social Security or railroad retirement payments; interest; welfare payments and/or other public assistance; unemployment, including Workmen's Compensation; Armed Forces allotments, Government retirement, and veterans payments; private pensions or annuities, alimony, child support, and regular contributions of persons not in the immediate household; and net income from rented properties and royalties. It does not include other money income such as inheritance or bequests, lump sum payments from casualty insurance, and gifts of cash from persons outside the immediate household.

Survey results are estimates of the total population based on a sample and, consequently, they may differ somewhat from the figures obtained if a complete census had been taken using the same questionnaires, instructions, and enumerations. The results of any survey are subject to sampling variability and nonsampling errors. Appendix 1 presents information on sampling variability.

## TOTAL PERSONAL INCOME FROM FARMING

U. S. total personal income in current dollars directly attributable to farming increased by 56 percent between 1963 and 1976 (from \$16 billion to \$25 billion) while personal income from all sources increased by 196 percent (from \$463 billion to \$1,374 billion). The percent of U.S. personal income attributable to farming has trended downward at least since 1963 (table 1). In 1976, only 1.8 percent of the U.S. personal income was attributable to farming, a little more than one-half the percentage of 1963.

### Regional Distribution

In 1976, farm income as a percentage of total personal income ranged from slightly less than 0.5 percent in the Northeast to 5.9 percent in the Northern Plains (table 1)<sup>4/</sup>. Between 1963 and 1976, all regions experienced

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<sup>4/</sup>

Regions:

Northeast--Maine, N.H., Vt., Mass., R.I., Conn., N.Y., N.J., Del., and Md. Except for the inclusion of Del. and Md. it conforms to the Census' Northeast Region.

Lake States--Mich., Minn., and Wisc.

Corn Belt--Ill., Ind., Iowa, Mo., and Ohio.

Northern Plains--Kans., Nebr., N. Dak., and S. Dak.

The Lake States, Corn Belt, and Northern Plains region taken together are the same as Census' North Central Region.

Appalachian--Va., W. Va., N.C., Ky., and Tenn.

Southeast--Ala., Fla., Ga., and S. Car.

Delta--Ark., La., and Miss.

Southern Plains--Okla. and Texas.

The Appalachian, Southeast, Delta and Southern Plains regions plus Del. and Md. make up Census' Southern Region.

Mountain--Mont., Idaho, Wyo., Colo., N. Mex., Ariz., Utah, and Nev.

Pacific--Wash., Ore., Calif., Alaska, and Hawaii.

The Mountain and Pacific regions conform to Census' West Region.



Table 1. U.S. total personal income from farming as a percentage of all personal income from all sources by regions, 1963-76.

Region	Personal Income from Farming as a Percentage of all Personal Income from all Sectors*													
	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Northeast	0.8	0.8	0.9	0.8	0.7	0.6	0.7	0.6	0.5	0.5	0.7	0.6	0.5	0.5
Lake States	3.4	2.8	3.3	3.5	2.8	2.6	2.5	2.9	2.4	2.5	4.3	3.3	2.6	1.8
Corn Belt	3.2	2.6	4.0	3.8	3.1	2.7	3.2	2.7	2.7	3.1	3.9	2.7	3.3	1.9
Northern Plains	12.0	10.4	13.8	15.0	12.5	10.6	11.7	10.6	11.0	14.5	19.9	12.1	10.3	5.9
Appalachian	5.1	4.7	4.5	4.1	3.8	3.1	3.3	3.0	2.7	2.8	3.4	2.9	2.3	2.1
Southeast	4.9	4.5	4.3	3.7	2.6	3.3	3.5	3.1	3.1	2.9	3.0	2.6	2.3	2.1
Delta	9.6	8.8	7.9	7.7	6.8	6.8	6.2	6.6	6.1	6.6	6.6	5.9	3.9	3.2
Southern Plains	5.2	4.6	5.3	5.0	3.9	4.0	3.8	3.6	3.4	3.7	4.6	2.2	1.8	1.6
Mountains	5.7	4.8	5.9	5.5	5.3	4.9	4.8	5.3	4.6	4.8	6.0	4.8	3.6	2.7
Pacific	2.9	2.7	2.9	2.8	2.5	2.6	2.4	2.1	2.2	2.3	3.0	3.1	2.2	2.4
United States	3.4	3.0	3.3	3.2	2.8	2.6	2.7	2.5	2.4	2.6	3.4	2.6	2.3	1.8

\*Personal income is defined as current income received by persons from all sources, including transfer payments. It is measured before taxes, except for individual contribution to social security.

Source: Survey of Current Business, Bureau of Economic Analysis, U.S. Department of Commerce, August issue.

fluctuations in the percentage of personal income derived from farming, particularly the more rural Northern Plains, Delta, and Mountain regions, but overall each region experienced a decline. It appears that differences among regions with respect to the percentage of total personal income from farming are decreasing. For example, the greatest difference between the lowest and the highest percentage regions (19.2 percentage points) occurred in 1973 but averaged 11.5 percentage points between 1963 and 1971. By 1976, the percentage difference had declined to only 5.4 percentage points. A combination of shifts in the relative price structure for products produced in the different regions, the changes in the number of farms, and the growing proportion of goods and services produced in the nonfarm sectors contributes to the declining differences among regions.

#### INCOME DISTRIBUTION AMONG FARM FAMILIES

Earlier studies have indicated that total farm income for farm families is becoming more equally distributed due to increased off-farm income, decreased farm numbers, and increased farm size (3, 6, 8, 12, 13, 17, and 18). As American agriculture has become more capital intensive, it has allowed more farm family labor to be utilized off-farm. Consequently, even after adjusting for inflation, incomes of families reporting farm earnings have risen and become more alike. Carlin (3) and Larson (13) found that the income gap between farm families and nonfarm families was narrowing and that regional differences in family incomes were decreasing.

Reported total net money income of farm families ranged from a negative \$12,500 to over \$150,000 and averaged \$12,027 in 1973. About 23 percent of the families had net money incomes of less than \$5,000 (table 2). This

Table 2. Level and average net money income and average net farm income by regions for all farm families, farm families reporting farm profits and farm families reporting farm losses, 1973.

Geographic Region	Farm Families (000)	Level of Family Net Money Income							Average Net Farm Income dollars
		Less than \$3,000	\$3,000-\$4,999	\$5,000-\$9,999	\$10,000-\$14,999	\$15,000-\$24,999	\$25,000 or more	Average	
-----percent-----									
<u>All Farm Families:</u>									
Northeast	182	12.7	12.2	26.4	21.3	23.4	4.0	10,829	2,753
Lake States	304	7.6	14.6	28.8	25.2	19.2	4.6	11,155	5,803
Corn Belt	644	7.4	7.5	20.6	26.6	24.8	13.1	14,709	8,131
Northern Plains	272	4.4	12.4	34.2	24.8	18.8	5.4	11,395	6,991
Appalachian	457	18.5	19.5	28.5	19.9	11.3	2.3	8,787	1,924
Southeast	219	10.3	11.4	32.6	18.9	21.7	5.1	11,700	3,575
Delta	174	20.2	17.4	30.7	18.4	11.5	1.8	8,446	1,875
Southern Plains	303	8.2	11.4	26.6	21.6	20.8	11.4	13,993	6,136
Mountain	315	11.9	7.6	29.7	16.9	17.8	16.1	15,553	8,068
Pacific	160	4.4	10.0	24.4	24.4	23.7	13.1	14,728	4,259
U.S.	2,850	10.8	12.6	22.5	22.5	19.3	7.6	12,027	5,097
<u>Farm Families Reporting Farm Profits:</u>									
Northeast	126	8.7	13.8	29.7	22.5	21.0	4.3	11,061	4,409
Lake States	273	6.2	14.3	28.6	25.6	20.9	4.4	11,496	6,532
Corn Belt	544	6.0	7.0	18.9	26.5	26.6	15.0	15,633	9,652
Northern Plains	249	3.2	12.9	34.4	24.8	18.8	5.9	11,591	7,663
Appalachian	370	18.7	19.9	30.1	18.2	10.8	2.3	8,676	2,489
Southeast	163	8.4	12.2	29.0	19.9	24.4	6.1	12,645	4,842
Delta	124	15.4	21.1	30.1	19.9	10.9	2.6	8,801	2,673
Southern Plains	235	7.9	11.5	23.0	20.4	23.6	13.6	14,967	8,056
Mountain	121	12.3	8.5	29.2	16.0	17.0	17.0	15,731	9,215
Pacific	92	2.1	8.6	21.5	19.4	29.0	19.4	17,568	8,217
U.S.	2,297	9.2	13.0	26.6	22.3	20.2	8.7	12,624	6,500
<u>Farm Families Reporting Farm Losses:</u>									
Northeast	56	22.0	8.5	18.6	18.6	28.9	3.4	10,287	-1,120
Lake States	31	20.7	17.2	31.0	20.7	3.5	6.9	7,944	-1,058
Corn Belt	100	15.1	10.5	30.2	26.8	15.1	2.3	9,483	-463
Northern Plains	23	18.8	6.2	31.3	25.0	18.7	--	9,112	-822
Appalachian	87	17.5	17.5	21.2	27.5	13.8	2.5	9,273	-563
Southeast	56	15.9	9.1	43.2	15.9	13.6	2.3	8,887	-194
Delta	50	32.2	8.1	32.3	14.5	12.9	--	7,553	-358
Southern Plains	68	9.3	11.1	38.9	25.9	11.1	3.7	10,458	-656
Mountain	14	8.3	--	33.3	25.0	25.0	8.3	13,976	-2,065
Pacific	68	7.5	11.9	28.4	31.3	16.4	4.5	10,786	-1,235
U.S.	553	17.1	11.2	29.7	23.6	15.5	2.9	9,548	-724

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

estimate compares favorably with Current Population Survey (CPS) estimates which show that 21.5 percent of the farm families in 1973 received less than \$5,000 [26].

The Delta and Appalachian regions had a higher proportion of their farm families with incomes under \$5,000 than any of the other regions. Only in these two regions did farm families average less than \$10,000 total income. The Pacific region had the smallest percentage of farm families with incomes under \$5,000. Less than 1 percent of the farm families had a negative total net money income before taxes and only about one in three of these had income from farm sources only.

Farm operators reporting farm profits (80.6 percent) had a higher average total net money income overall and in each region except the Appalachian region than did those farm families reporting farm losses (table 2). Farm operators reporting a farm loss generally had a small farm loss but higher off-farm incomes than did farm operators reporting a farm profit. The proportion of farm families with total incomes under \$3,000 who reported farm losses was almost twice that of similar farm families reporting farm profits. But the difference between the proportion of the two groups with incomes under \$5,000 was only 6 percentage points. The highest incidence of farm families reporting negative cash income from farming was in the Pacific, Northeast, and Delta regions. The lowest incidence was in the Lake States, Corn Belt, and Northern Plains.

#### Dependency on Farm Income

Only a small proportion, about 1 in 12, of the families with farm income depended solely on farm incomes for their livelihood. The remaining families

had income from one or more nonfarm sources in addition to farm income. In aggregate terms, off-farm income exceeded farm income. The most frequently reported sources of off-farm income were wages and salaries, returns from nonfarm businesses, pensions which included Social Security payments, unemployment compensation, private pensions, and welfare payments and investments which included interests, rents, and royalties (table 3).

The degree of dependency on farm income for family livelihood varied by regions (fig. 1). Overall, 57.6 percent of the net money income of the families reporting farm income came from nonfarm sources in 1973 (table 4). Families in the Appalachian region showed the least dependence on farm income as only 22 percent of their income was from farming (app. table 2). Families in the Northeast, the Delta, and the Pacific regions also had less dependency on farm income than families in the other regions. Families in the Northern Plains, with over 61 percent of their income from farming and the Corn Belt, with 55 percent of their income from farming, showed the greatest dependency on farm income. The portion of family income derived from farming, for those families reporting farm profits, rose as total family income increased and at the higher income levels (above \$25,000) farm income exceeded off-farm income.

In the highly industrialized Northeast, Lake States, Corn Belt, Appalachian, and Southeast regions, wages and salaries accounted for between 71 and 74 percent of all off-farm income of the farm households. But only in the Northeast, Appalachian, Southeast, Delta, and the Pacific regions did the income from wages and salaries of these households exceed their income from farming. Wage and salary income ranged upward to 2.5 times greater than

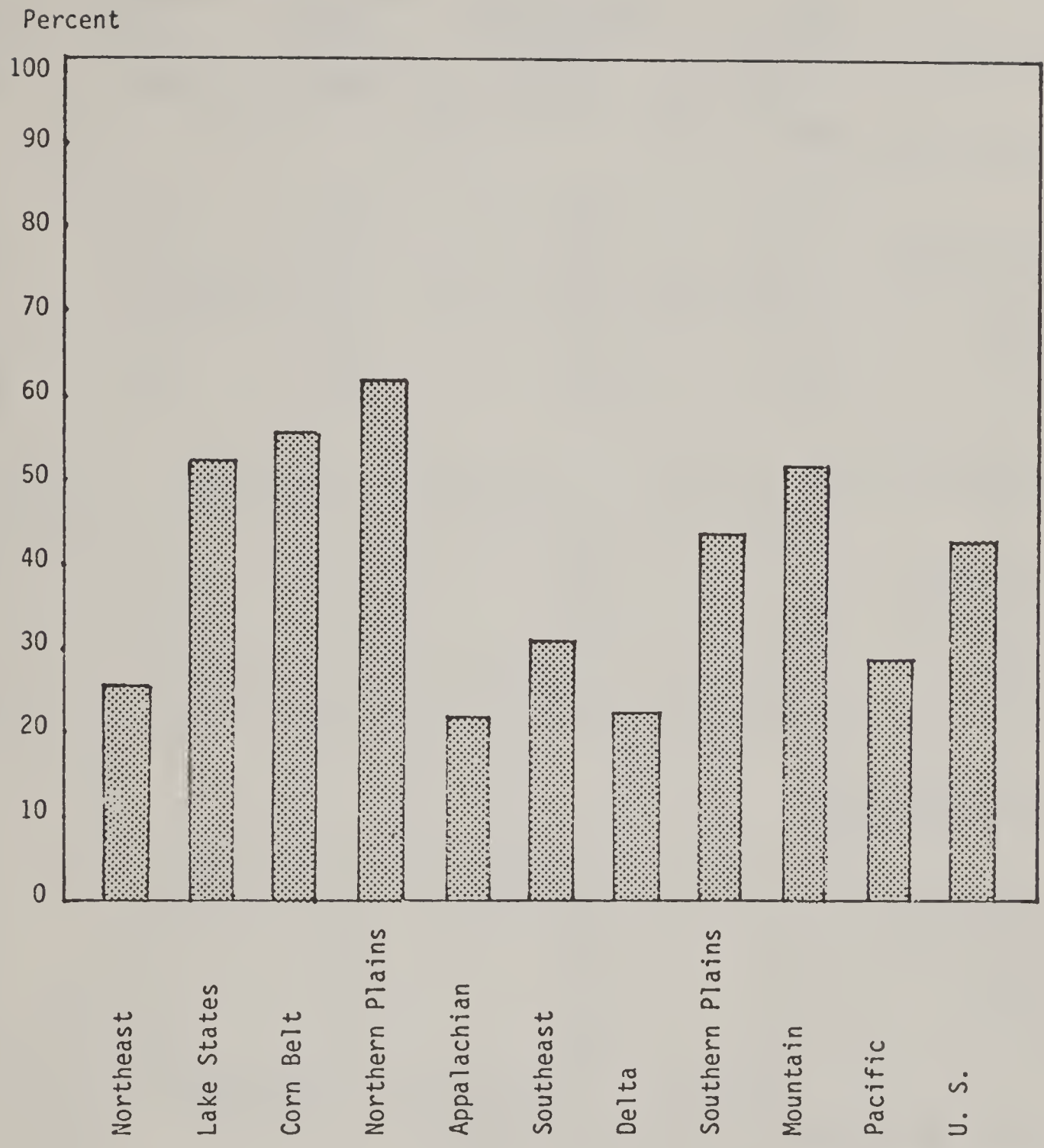


Figure 1. Net farm income as a percentage of farm family total net money income for regions and the U.S., 1973.

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

Table 3. Sources of farm family income, by average amount of income received by those families receiving, age of farm operator, size of farm family and number of full-time earners per family, 1973.

Sources of Income	Number of Farm Families (000)	Average Amount Received by Those Receiving Dollars	Average Age of Farm Operator Years	Average Size of Farm Family Number	Full-Time Earners per Family Number
<u>All Families with Farm Income:</u>					
Farm	2,850	5,097	50.8	3.56	1.12
Nonfarm Businesses <sup>1/</sup>	382	6,316	47.5	3.74	1.23
Wages and Salaries <sup>2/</sup>	1,716	7,685	47.5	3.92	1.35
Pensions <sup>3/</sup>	1,080	1,939	61.0	2.86	0.78
Investments <sup>4/</sup>	1,693	1,119	53.4	3.26	1.11
Total	2,850	12,027	50.8	3.56	1.12
<u>Families with Farm Profits:</u>					
Farm	2,297	6,500	51.0	3.56	1.11
Nonfarm Business <sup>1/</sup>	287	5,913	47.5	3.89	1.20
Wages and Salaries <sup>2/</sup>	1,300	7,010	47.7	3.90	1.35
Pensions <sup>3/</sup>	825	1,879	61.4	2.84	0.79
Investments <sup>4/</sup>	1,360	1,143	53.4	3.27	1.11
Total	2,297	12,624	51.0	3.56	1.11
<u>Families with Farm Losses:</u>					
Farm	553	-724	49.8	3.56	1.14
Nonfarm Businesses <sup>1/</sup>	93	7,552	47.3	3.62	1.34
Wages and Salaries <sup>2/</sup>	417	9,786	46.4	3.97	1.33
Pension <sup>3/</sup>	254	2,143	59.8	2.96	0.76
Investments <sup>4/</sup>	331	1,021	53.3	3.22	1.11
Total	553	9,548	49.8	3.56	1.14

<sup>1/</sup> Operation of non-farm business or professional practice.

<sup>2/</sup> Cash wages, salaries, commissions, and tips.

<sup>3/</sup> Pensions, retirement, social security, veterans benefits, unemployment compensation, and welfare payments.

<sup>4/</sup> Rental income from non-farm property, interest, dividends, etc.

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

Table 4. Sources and levels of family income for all farm families, farm families reporting farm profits, and farm families reporting farm losses, 1973.

Level of Farm Family Income	No. of Farm Families Thous.	Estimated Aggregate Family Income Million Dollars	Source of Farm Family Income				
			Farm	Nonfarm Businesses <sup>1/</sup>	Wage and Salaries <sup>2/</sup>	Pensions <sup>3/</sup> Investments <sup>4/</sup>	
			Percent				
<u>All families with farm income:</u>							
Under \$3,000	307	482	15.5	7.0	20.3	48.0	9.2
3,800- 4,999	360	1,465	39.8	3.7	19.8	28.7	8.0
5,000- 9,999	774	5,807	37.1	5.8	39.9	11.5	5.7
10,000-14,999	643	7,959	35.2	6.4	49.8	5.1	3.5
15,000-24,999	550	10,372	39.2	6.7	47.7	2.8	3.6
25,000 or more	216	8,193	60.2	9.6	19.7	1.2	9.3
Total	2,850	34,278	42.6	7.1	38.6	6.2	5.5
<u>Families with farm profits:</u>							
Under \$ 3,000	212	440	48.2	1.7	9.5	9.3	31.3
3,000- 4,999	298	1,211	50.2	2.7	12.4	10.0	24.7
5,000- 9,999	610	4,582	49.3	4.0	31.2	6.9	8.6
10,000-14,999	513	6,357	45.0	5.4	41.4	5.3	2.9
15,000-24,999	464	8,770	47.1	5.6	41.4	4.4	1.8
25,000 or more	200	7,633	64.9	8.6	16.7	9.2	0.6
Total	2,297	28,993	51.8	5.9	31.5	5.4	5.4
<u>Families with farm losses:</u>							
Under \$ 3,000	95	42	-329.8	62.6	134.3	186.2	46.7
3,000- 4,999	62	254	-9.5	8.8	54.6	33.9	12.2
5,000- 9,999	164	1,225	-8.0	12.8	72.4	14.3	8.5
10,000-14,999	130	1,602	-3.3	10.3	82.8	8.6	1.6
15,000-24,999	86	560	-2.9	23.2	60.9	3.0	15.8
Total	553	5,285	-7.6	13.4	77.5	10.3	6.4

<sup>1/</sup> Operation of non-farm business or professional practice.

<sup>2/</sup> Cash-wages, salaries, commissions, and tips.

<sup>3/</sup> Pensions, retirement, social security, veterans benefits, unemployment compensation and welfare.

<sup>4/</sup> Rental income from non-farm property, interest, dividends, etc.

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.



income from farming for the Pacific. The Corn Belt farm households earned the greatest dollar amount from wages and salaries of any of the regions, almost 23 percent of wages and salaries income earned by farm households, but these earnings were only about 60 percent of farm earnings in the region.

At the lowest total income levels, under \$3,000, off-farm income made up 85 percent of the total (table 4). Even when considering only those households reporting farm profits, off-farm income was approximately equal to farm income for all except the highest income households, \$25,000 or more. Less than 1 percent of the households had a negative net money income. On the other hand, almost 20 percent had a negative net farm income. Although the low-income families, those under \$3,000, had an apparent low dependency on farm income, that view is somewhat misleading. First, families in the under \$3,000 income group reporting farm profits had almost equal dependency on farm and nonfarm income sources. These families accounted for 91 percent of all families in the lowest income class. And second, a high percentage of older operators had total incomes under \$3,000.

Generally, as total income rose the portion from wages and salaries rose, except in the highest income class -- those households with income \$25,000 and over. This relationship between total income and wage and salary income was consistent for all families, for those reporting farm profits, and for those reporting farm losses. For the \$25,000 and over income class, income from nonfarm business became an important source of income. Nonfarm business sources include income from proprietorships, professional, and other high skill occupational incomes. The \$25,000 and above income class also included many of the large farm operations.

One of the more notable aspects of the income distribution and the sources of income of households with farm income was the relatively few receiving welfare. The few who did receive welfare payments received it in the form of aid to families with dependent children and over one-half of these were in one region -- the Delta. It is possible that the level of asset holding (farm-land and buildings) may have precluded many of these low-income farm families from participating in the existing welfare programs.

Households with negative farm incomes included almost half of the aged (65 years of age or older) operators receiving welfare. Slightly more than 90 percent of the families headed by operators 65 years of age or older received income from Social Security. This represented approximately one in seven of all farm families.

Regions with higher family net money incomes tended to also have higher average net farm income and vice versa (app. table 3). The least differences in total net money income between those reporting farm profits and those reporting farm losses occurred in Northeast, Appalachian, and Delta regions and the greatest differences in the Corn Belt and Pacific regions. The Pacific region farm families reporting farm profits had an average income of \$17,568, more than twice the average incomes of similar Appalachian and Delta farm families. However, the average income of farm families reporting farm losses showed considerably smaller variations between regions primarily because the average net farm loss in regions of lower family total net money

income was less than in regions that had higher average family net money incomes.

In terms of the average amount per household reporting the only wide variations by regions were in incomes from farm, wages and salaries, and nonfarm businesses (app. table 3). The lowest average earnings for those reporting wages and salaries income were in the Northern Plains, both overall and for those households with farm profits. But, when considering only those households reporting farm losses, the average income in the Northern Plains from wages and salaries was second highest of all the regions, although few households there had losses. In every instance, except in the Southeast, the average income for those reporting wage and salary income was higher among those households reporting farm losses than for those reporting farm profits. The reason for the exception is not readily apparent but the greater age of those in the region with farm losses probably explains most of the difference. Overall, approximately 78 percent of the net money income before taxes of households reporting farm losses was from wage and salaries while only 32 percent of the income of households reporting farm profits was from that source (table 4). The differences in farm earnings and in wage and salary earnings in the various regions explain to a large extent the differences in net money incomes between the regions.

A useful tool to summarize the degree of concentration of a given income distribution is the inequality index or Gini Ratio. In determining the index, income recipients are ranked from lowest to highest and the cumulative percentage of the numbers is plotted against the cumulative percentage of

income received as in fig. 2. The curve is a line with a slope of 45 degrees if all incomes are equal. The coefficient of inequality for a Lorenz Curve (Gini Ratio) is the area between the curve and the diagonal line divided by the area under the diagonal,  $A/A + B$  Figure 2. It has a maximum value of one when the lowest 99.9999 percent received no income and a minimum value of zero when all incomes are equal<sup>5/</sup>. The ratio is a single figure summary of how evenly income is distributed among recipients in a group (16, 28, and 1).

Data from the 1973 Farm Family Living Expenditures Survey showed considerable differences in the distribution of farm family incomes among the regions. The greatest inequality in total income was between farm families in the Northern Plains region (Gini of .33) and those farm families in the Mountain region (Gini of .48) (table 5). Apparently, the greater inequality in farm income in the Mountain region contributed to the greater inequality in total family income.

The greatest inequality in total income was in the Mountain, Appalachian, Southern Plains, and Delta regions in that order and the least inequality was in the Northern Plains (table 5). In the highly productive farming areas, however, the highest inequality of farm income occurred, such as in the Southern Plains, Mountain, and

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<sup>5/</sup> To compute the ratio let the cumulative percentage of recipients with incomes less than  $m_i$  be  $p_i$ , and let their cumulative percentage of aggregate income be  $q_i$ . Then the Lorenz Curve has an equation  $q_i = f(p_i)$ . If the incomes are reported in classes, let  $r_i$  be the percentage<sup>1</sup> of recipients in income class  $i$ , (whose maximum income is  $m$ ). Then the area under the Lorenz Curve is the sum of the areas of the polygons:  $\frac{1}{2} E(q_i + q_{i-1})r_i$  (23).

Percent of  
Income Received

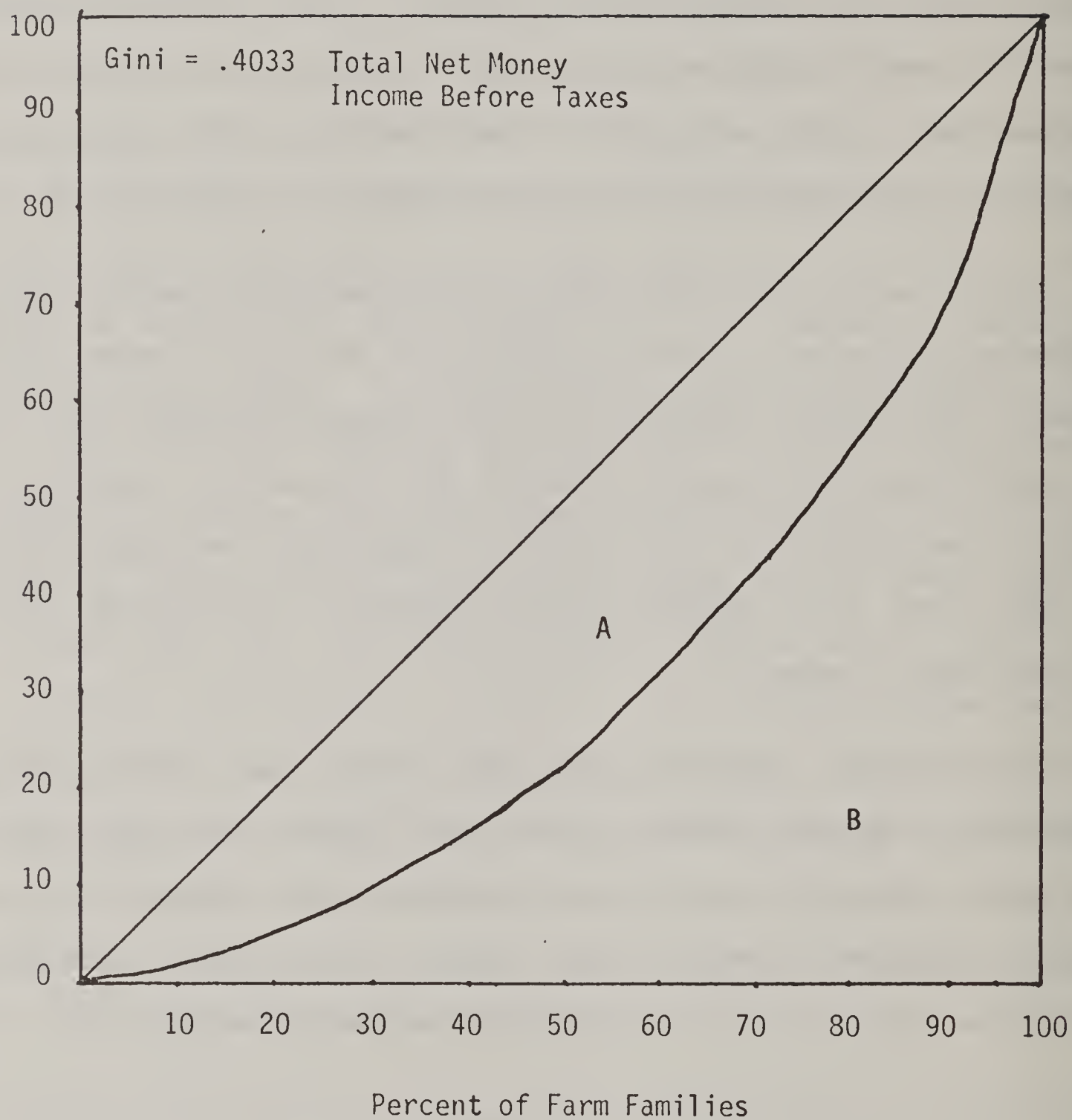


Figure 2. Degree of concentration of family total net money income before taxes, 1973.

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

Table 5. Inequality of income distribution (Gini ratio) by major sources of income for regions, 1973.

Region	Gini Ratio			
	Total Income	Farm Income	Off-farm Income	Wages and Salaries
Northeast	0.3955	0.3787	0.3770	0.3449
Lake States	.3630	.3432	.3436	.2442
Corn Belt	.3647	.4616	.2225	.2117
Northern Plains	.3269	.3360	.2725	.2688
Appalachian	.4125	.2897	.4215	.3361
Southeast	.3891	.4463	.3360	.2959
Delta	.4090	.3824	.3989	.2825
Southern Plains	.4125	.5765	.2894	.2104
Mountain	.4751	.5830	.3398	.2692
Pacific	.3732	.6063	.2902	.2515
All	.4033	.4863	.3223	.2670

Source: Based on special tabulations from the 1973 Farm Family Living Expenditures Survey.

Pacific regions (table 5). The lowest inequality of farm income occurred in the area of high concentration of small farms and limited agriculture -- the Appalachian region. The high inequality of farm income in the Mountain and Pacific regions contributed to the high inequality of total income because income from all off-farm sources, wages and salaries in particular, was relatively low. The Delta and the Northeast regions had a high inequality of total income and a consistently high inequality from farming, from all non-farm sources, and from wages and salaries.

#### LOW-INCOME FARM FAMILIES

The poverty threshold is determined by family income level, number of family members dependent upon the income, sex of family head, the residence of the family (farm and nonfarm) and, the age of the family head (26). For 1973, the farm family poverty threshold ranged from \$1,804 for a single female family head (65 years of age or older) to \$6,357 for a male family head with seven or more persons in the family unit. Using the poverty matrix specified in (26), 10.6 percent of the farm families had income below the poverty threshold (table 6). The survey estimate of 301,000 poor farm families compares favorably with the CPS estimate of 295 thousand farm families below the poverty threshold.

Low-income farm families, that is those below the poverty threshold, were present throughout the United States but were most concentrated in the South. The Appalachian region alone contained a fourth of the low-income farm families and together with the Delta, the Southeast, and the Southern Plains regions accounted for almost 55 percent of the low-income farm households.

Table 6. Farm families with incomes below the poverty threshold by regions, 1973

Region	Farm families below the poverty threshold <sup>1/</sup>	
	Number	Rate within Region
	(000)	Percent
Northeast	31	16.2
Lake States	24	7.6
Corn Belt	43	6.5
Northern Plains	18	6.4
Appalachian	77	16.2
Southeast	23	10.3
Delta	36	19.7
Southern Plains	27	8.6
Mountain	16	11.9
Pacific	6	3.8
United States	301	10.6

<sup>1/</sup> Based on criteria given in Table A-3, p. 162 U.S. Bureau of the Census, Current Population Report, Series P-60, No. 98, "Characteristics of the Low-Income Population:1973".

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.



Nearly 20 percent of farm families in the Delta States had incomes below the poverty threshold, the highest rate of any region. But the Appalachian region had almost twice the number of low-income farm families, an estimated 77,000, as the region with the next largest number, the Corn Belt (table 6). In fact, the Appalachian, the Corn Belt, and the Delta regions together contained almost 52 percent of the low-income farm families but only 44 percent of all farm families. Low family incomes were also associated with the greater age of the operators and the lack of full-time earners (table 7). In contrast, those operators reporting the higher incomes were younger, had more full-time earners per family working, and realized greater returns from farming than from off-farm sources.

Although family size is one of the components in determining the poverty threshold, total family net money income before taxes does not appear to be associated in any consistent way by the number of family members. The possible exception to this is the case of the single person household where on a per capita basis the incomes were larger and the age considerably higher than the multiple person families. The lower income families generally had less than the equivalent of one-full time earner and seven in eight of the families with no full-time earners were 55 years of age or older.

#### FAMILIES WITH SMALL FARM BUSINESS

In the past, it was assumed that family income was directly related to the size of the farm business. Consequently, low net farm incomes were believed to be associated with small farm businesses which in turn implied that family income was relatively low. Results of this survey show a posi-

tive relationship between net farm income and family net money income but it was weak except for the higher incomes (table 7).

Moreover, the distribution of family net money income by farm sales class indicates that a wide range of family income exists within each size of farm business (table 8). A small farm business (value of farm sales) does not necessarily mean that a family has a low income. In fact, almost 40 percent of the farm operators reporting farm sales under \$2,500 had family net money incomes of \$10,000 or more. Thus, size of farm business does not accurately reflect the income situation of farm people<sup>6/</sup>.

One definition of small farms often used is any farm with sales of agricultural products of less than \$20,000. Off-farm income is not taken into consideration. Using this criterion, more than two-thirds of the households reporting farm income in 1973 would be classified as small. These farm families had an average net money income of \$9,618. Whereas those farm operators reporting sales of \$20,000 or more had a significantly higher average net money income of \$17,151.

Almost all (90 percent) of the farm-operator families reporting negative farm incomes were from small farms. As a group they had average farm sales of only \$2,059. Also, about five in eight of the families reporting farm profits were small farm operators and as a group they averaged farm sales of \$9,582.

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<sup>6/</sup> For an indepth analysis of the relationship between economic class as a measure of farmers' welfare see (11).

Table 7. Income and demographic characteristics of families with farm income, 1973.

Total Family Income	Number of Farm Families	Average Net Money Income	Average Farm Income	Average Size of Family	Average Age of Farm Operator	Full-Time Earners Per Family
	thousands	dollars	dollars	number	years	number
<u>All Families with Farm Income:</u>						
Less than \$3,000	307	1,571	242	2.56	59.0	0.63
3,000-4,999	360	4,069	1,617	2.92	56.8	0.79
5,000-9,999	774	7,500	2,768	3.53	51.1	1.08
10,000-14,999	643	12,385	3,527	3.92	46.9	1.27
15,000-24,999	550	18,850	7,346	4.03	46.6	1.40
25,000 or more	216	37,859	22,599	3.83	49.8	1.36
All	2,850	12,027	5,097	3.56	50.8	1.12
<u>Families with Farm Profits:</u>						
Less than \$3,000	212	2,075	996	2.50	59.9	0.61
3,000-4,999	298	4,064	2,033	2.96	57.2	0.78
5,000-9,999	610	7,511	3,673	3.53	51.5	1.07
10,000-14,999	513	12,412	5,563	3.89	47.3	1.25
15,000-24,999	464	18,888	8,861	3.97	46.9	1.37
25,000 or more	200	38,126	24,522	3.82	49.5	1.33
All	2,297	12,624	6,500	3.56	51.0	1.11
<u>Families with Farm Losses:</u>						
Less than \$3,000	95	439	-1,449	2.76	57.2	0.68
3,000-4,999	62	4,098	-388	2.70	53.9	0.86
5,000-9,999	164	7,461	-593	3.53	49.9	1.09
10,000-14,999	130	12,279	-412	4.02	45.2	1.32
15,000-24,999	86	18,648	-842	4.37	45.1	1.58
25,000 or more	16	34,321	-993	4.00	54.1	1.73
All	553	9,548	-724	3.56	49.8	1.14

Source: Special tabulations from the 1974 Farm Family Living Expenditures Survey.

Table 8. Families with farm income, by specified values of farm sales and by levels of family net money income, 1973.

Value of Farm Sales	Families With Farm Income	Level of Family Net Money Income						Average Family Net Money Income	Average Net Farm Income	Average Age of Farm Operator
		Under \$3,000	\$3,000-\$4,999	\$5,000-\$9,999	\$10,000-\$14,999	\$15,000-\$24,999	\$25,000 or more			
	(000)	-----percent-----						dollars	dollars	years
Under \$50	94	19.8	16.3	27.9	18.6	17.4	0.0	8,650	-65	52.9
\$50-999	372	19.7	13.2	29.3	22.9	12.6	2.3	9,151	100	51.9
\$1,000-2,499	411	17.0	16.7	23.6	21.5	19.6	1.6	9,505	451	54.6
\$2,500-4,999	337	13.3	20.4	28.5	21.3	13.6	2.9	9,265	960	55.9
\$5,000-9,999	356	12.8	17.1	31.8	19.0	15.6	3.7	9,749	2,156	51.6
\$10,000-19,999	363	4.5	14.7	36.4	23.1	16.8	4.5	10,673	4,411	50.4
\$20,000-39,999	406	4.8	7.5	32.5	29.9	17.8	7.5	12,291	7,770	47.2
\$40,000-99,999	397	4.1	3.0	14.8	23.1	34.4	20.6	18,648	14,732	46.9
\$100,000 or more	114	1.9	0.9	6.7	14.3	32.4	43.8	29,179	29,179	45.9
All	2,850	10.7	12.6	27.1	22.6	19.4	7.6	12,027	5,097	50.8

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

The Appalachian region held the largest number of small farms, approximately 415,000 or 20 percent of the national total. The Corn Belt held the second highest number, some 339,000 or about 16 percent of the small farm families. The South (Appalachian, Southeast, Delta, and Southern Plains regions) had approximately half of all small farm families but only about 39 percent of all farms (table 9). Although the Corn Belt had the second largest number of small farms, it had the largest number of farms reporting sales of \$20,000 or more; slightly more than one-third of all such farms. The Corn Belt, Lake States and Northern Plains regions contained 63.9 percent of all farms with value of sales \$20,000 or more.

The median age of household heads reporting farm sales under \$20,000 was 6.7 years more than the median age of those having farm sales over \$20,000. The relatively small number of operators 65 years of age or older with farm sales of \$20,000 or over accounted for much of the age differential. As noted previously, the median age of household heads reporting farm profits was greater than for those household heads reporting farm losses but the age differences between those with sales over \$20,000 and those under \$20,000 remained much the same.

#### FARM-INCOME-ONLY HOUSEHOLDS

Off-farm income, either earned or as a result of income transfers, often is the primary source of income for families with farm income. Almost 92 percent of the farm operators reported receiving income from farming and from at least one other source. The remaining 8 percent of the farm families depended upon farming as their sole source of income. This is a vastly

Table 9. Families with farm income, by specified values of farm sales and by regions, 1973.

Value of Farm Sales	Families With Farm Income	Region									
		Northeast	Lake States	Corn Belt	Northern Plains	Appalachian	Southeast	Delta	Southern Plains	Mountain	Pacific
Number (000)	2,850	182	304	644	272	457	219	174	303	135	160
		-----percent-----									
All	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than \$50	3.3	3.6	0.3	2.5	1.0	4.9	3.4	8.7	3.7	0.0	4.4
\$50-999	13.1	10.7	4.3	8.2	4.0	21.3	19.4	20.3	14.4	7.6	23.8
\$1,000-2,499	14.4	15.8	8.3	8.4	5.4	21.5	19.4	23.5	14.8	16.1	18.1
\$2,500-4,999	11.8	10.7	8.6	10.4	5.4	16.7	12.0	15.2	16.1	8.5	10.6
\$5,000-9,999	12.5	8.7	9.9	10.4	13.9	16.0	13.1	14.3	15.6	18.6	6.2
\$10,000-19,999	12.8	11.2	24.2	12.8	16.3	10.4	10.3	8.3	8.6	11.9	10.0
\$20,000-39,999	14.9	23.5	22.5	17.6	28.2	4.4	12.6	4.6	9.1	12.7	8.1
\$40,000-99,999	13.9	12.2	19.2	22.7	21.3	4.1	6.9	3.7	13.6	17.8	11.3
\$100,000 or more	4.0	3.6	2.7	7.0	4.5	0.7	2.9	1.4	4.1	6.8	7.5

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

different picture from even a few decades ago because of growth in both rural job opportunities and income transfer payments.

Households with both farm and off-farm income averaged almost \$4,000 more family income than those households dependent on farming alone (table 10). This is reflected in the number of low-income operators in the two groups. Almost twice the percentage of farm-income-only households had incomes under \$5,000 as the combined farm and off-farm income families. As noted, households with farm income only accounted for only 8 percent of all farm families but these households represented slightly more than 16 percent of the households with incomes under \$3,000 and 17 percent of the households with incomes under \$5,000. Regionally, almost two-thirds of the farm-income-only households in the Northeast, Appalachia and the Delta had less than \$5,000 net money income before taxes.

The percentage of families depending solely on farming for income ranged from 4.4 percent in the Pacific region to 15.4 percent in the Northern Plains region. In the Southern Plains and Pacific regions, families with farm income only had higher average incomes than families with combined farm and nonfarm incomes in the same regions.

About 36 percent of the farm-income-only group had farm sales under \$20,000; overall the group had average farm sales of \$32,358. On the other hand, more than 70 percent of the families with combined farm and off-farm income had farm sales under \$20,000 and averaged farm sales of only \$7,481. Average net farm income was almost twice as high for farm-income only families (\$9,031) as for those with nonfarm sources of income (\$4,755).

Table 10. Families with farm income by sources of income, by regions, and by level of family net money income, 1973.

Sources of Income and Regions	Families With Farm Income	Level of Family Net Money Income							Average Family Net Money Income
		Under \$3,000	\$3,000-\$4,999	\$5,000-\$9,999	\$10,000-\$14,999	\$15,000-\$24,999	\$25,000 and over	dollars	
(000) -----percent-----									
Farm income only:									
Northeast	9	33.3	33.3	22.3	11.1	0.0	0.0	0.0	2,761
Lake States	37	18.9	21.6	40.6	16.2	2.7	0.0	0.0	7,113
Corn Belt	58	17.3	11.5	25.0	23.1	15.4	7.7	7.7	11,914
Northern Plains	35	15.4	26.9	30.8	15.4	3.8	7.7	7.7	9,717
Appalachian	33	38.7	25.8	25.8	6.5	3.2	0.0	0.0	5,082
Southeast	10	25.0	12.5	62.5	0.0	0.0	0.0	0.0	5,444
Delta	12	37.5	25.0	25.0	6.3	6.2	0.0	0.0	4,988
Southern Plains	20	12.5	18.8	12.5	12.5	32.5	6.2	6.2	14,110
Mountains	10	33.3	0.0	22.2	11.1	22.2	11.2	11.2	12,625
Pacific	8	0.0	0.0	37.5	0.0	50.0	12.5	12.5	17,857
All	231	22.6	18.9	29.3	13.7	11.3	4.2	4.2	9,031
Combined farm and off-farm income:									
Northeast	174	11.7	11.2	26.6	21.8	24.5	4.2	4.2	11,215
Lake States	267	6.0	13.6	27.2	26.4	21.5	5.3	5.3	11,719
Corn Belt	586	6.4	7.1	20.2	26.9	25.8	13.6	13.6	14,988
Northern Plains	237	2.9	10.2	34.7	26.1	21.0	5.1	5.1	11,643
Appalachian	424	16.9	19.0	28.7	20.9	12.0	2.5	2.5	9,073
Southeast	219	9.6	11.4	31.1	19.8	22.7	5.4	5.4	12,000
Delta	162	18.8	16.8	31.2	19.3	11.9	2.0	2.0	8,720
Southern Plains	283	7.9	10.9	27.5	22.3	19.6	11.8	11.8	13,985
Mountains	125	10.1	8.3	30.3	17.4	17.4	16.5	16.5	15,941
Pacific	152	4.6	10.5	23.7	25.7	22.4	13.1	13.1	14,585
All	2,619	9.7	12.1	27.0	23.3	20.0	7.9	7.9	12,973

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.



The average age of the household head whose only source of money income was farming was just over 6 years less than for those who had combined farm and off-farm income (45.5 years and 51.6 years, respectively). Only in the Delta and Mountains were the farm-income-only operators older. In the Lake States and the Corn Belt, the operators were about 11 and 7 years younger, respectively. One reason for the reduced ages of the farm-income-only operators was the extreme small number (less than 1.5 percent) of operators 65 years of age or older. Evidently, the older farmers had relinquished the farm operation to others as they became eligible for retirement.

The farm-income-only operators not only were younger but had a larger sized family unit. These households averaged 3.9 persons, whereas households with combined farm and off-farm averaged 3.5 persons. Although the farm-income-only households were larger, more than 91 percent had only one full-time earner. Slightly over 85 percent of the combined farm and off-farm income households had at least one full-time earner but nearly 30 percent also had two full-time earners. This was reflected in average off-farm earnings which were almost double average farm earnings for the group.

#### FARM-OPERATOR HOUSEHOLDS WITH OFF-FARM INCOME

Off-farm income has been more and more important as a component of farm family income over the last several decades. This has resulted primarily from increased off-farm job opportunities open to farm operators and their families. To a lesser extent income transfer payments to farm-operator families have also increased.

In 1974 almost 44 percent of the farm operators in the United States worked off the farm and more than 28 percent worked more than 200 days off-farm (27). More than twice the percentage of small farm operators (\$20,000 farm sale or less) worked off-farm for their livelihood as were solely dependent on farming.

In each total family net money income class of \$1,000, between less than \$1 to \$17,000, aggregative income from nonfarm sources exceeded aggregative net farm income by approximately two to one (fig. 3). In the higher income classes, \$20,000 or more, as total family income increased the farm contribution increased. When considering only those farm operators with combined farm and nonfarm income the dependency on nonfarm income becomes even more striking especially at the lower and upper income levels. For example, 95.6 percent of the families with total net money incomes of \$20,000 or over had both farm and nonfarm incomes but less than 40 percent of family income came from nonfarm sources. At the lower end of the income distribution, the percentage of income from nonfarm sources was greatest, almost 80 percent of those with incomes of less than \$1,000. Age of the farm-operator was a factor at the lower income levels because Social Security payments and other income transfer payments constituted a larger portion of total family net money income than in the other income classes.

#### IMPLICATIONS

Farm income, except for a small percentage of the farm families, is only one source of farm family income. More often than not, the income households receive from farming is less than the household receives from off-farm sour-

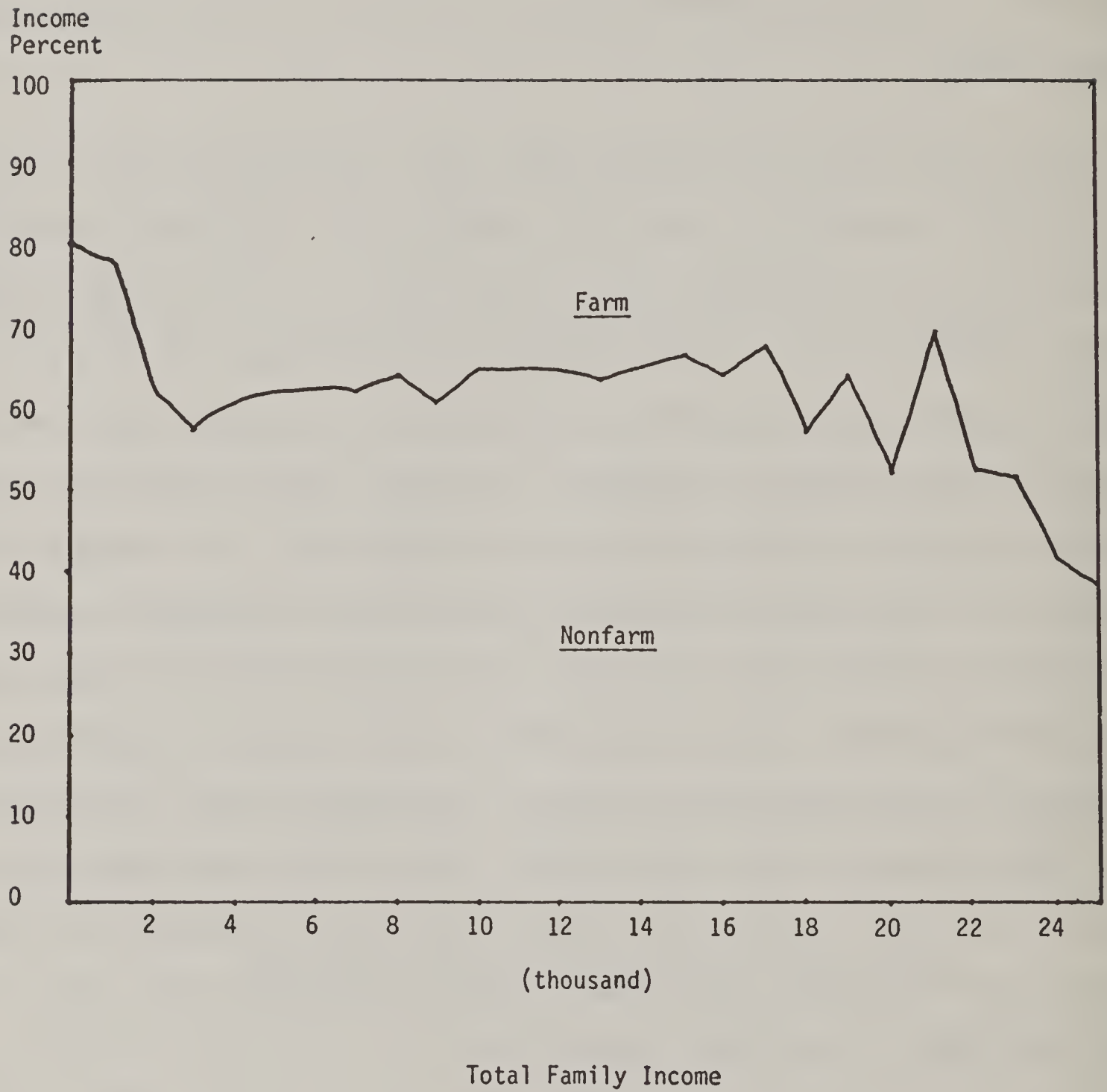


Figure 3. Proportion of total family net money income from farm and nonfarm sources.

Source: Special tabulation from the 1973 Farm Family Living Expenditures Survey.

ces. Consequently, for policy purposes, it is useful to separate those households into categories according to their primary sources of income. For example, policies designed to improve farm income would probably benefit all farm operators but the impact on household income would vary according to the reliance the household had upon farm income.

The amount farm operator families in each region received from different income sources varied considerably. Off-farm job opportunities are not the same in each region, therefore, wage and salary earnings differ between regions. Some regions have more older farm operators, thereby receiving more of their income from Social Security and private pension payments. In regions with relatively high incomes the opportunities for capital accumulations are greater resulting in more income from interest payments. And, the opportunity for natural resource exploitation is greater in some regions, leading to greater rent and royalty payments. All of these factors influence the income levels within each region. Much of the low-income problem among farm households is concentrated in the South and is associated with small farm size, operator's age, and an inability to participate in or unavailability of off-farm job opportunities as indicated by wage and salary payments. While data have not been presented here to verify the relationship, race is a factor in the South. The low-income status farm households in the other regions is more a function of age and, to a lesser extent, of small farm size. Therefore, to improve the income position of low-income Southern farm households is likely to require a much broader set of programs than those needed outside the South.

Table 11. Families with farm incomes, average net family money income, average farm income, and average nonfarm income, and sources of income by levels of off-farm incomes, 1973.

Level of Off-Farm Income	Families With Farm Income	Average Net Family Money Income		Sources of Family Money Income								
		Total	Farm	Nonfarm	All	Nonfarm			Nonfarm			
						Business	Wages & Salaries	Social Security	Interest	Royalties	Other	
	(000)	-----dollars-----		-----percent-----								
None	230	9,031	0	0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
\$1-499	194	10,415	10,213	202	98.1	1.9	0.1	0.5	0.1	1.0	0.2	0.0
\$500-999	144	9,534	8,209	736	92.3	7.7	0.4	2.0	1.3	2.5	0.9	0.6
\$1,000-1,999	278	8,209	6,740	1,469	82.1	17.9	1.2	5.3	6.4	3.0	0.7	1.2
\$2,000-2,999	238	7,452	4,980	2,472	66.8	33.2	2.2	10.6	14.0	3.9	1.0	1.5
\$3,000-3,999	198	8,900	5,498	3,402	61.8	38.2	2.2	14.8	12.3	4.9	1.7	2.3
\$4,000-7,499	536	9,787	4,186	5,612	42.8	57.2	57.2	34.4	7.9	4.5	2.0	2.8
\$7,500-9,999	276	11,979	3,332	8,647	27.8	72.2	7.8	50.8	4.7	3.9	1.5	3.5
\$10,000 or more	756	18,855	2,502	16,352	13.3	86.7	12.2	63.7	1.5	4.2	3.0	2.1
All	2,850	12,027	5,097	6,930	42.4	57.6	7.0	38.4	4.1	3.6	1.9	2.6

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

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## APPENDIX: SAMPLING VARIABILITY

Sampling variability, or error, expressed as a percentage of the estimate, (coefficient of variations or C.V.) used here is not the usual  $V = \frac{s}{x}$  where  $V$  is the coefficient of variation,  $s$  is the standard deviation,  $x$  is the mean of the distribution and  $i$  the class interval, but it is a measure of the relative sampling errors as determined by  $v = \frac{i}{x} \sqrt{\frac{1-f}{n}}$  where  $V^2$  is C.V. squared,  $n$  is sample number, and  $(1-f)$  is the fraction of the population not sampled (15). For selected items the coefficients of variation ( $v$ ) of the estimate of the mean are presented in Appendix Table 1. The chances are about 68 out of 100 that the actual population value for an item is between 95 and 105 percent of the value shown when that item has a C.V. of 5 percent. The chances are 19 out of 20 that the population value for this same item is between 90 and 110 of the survey result. The smaller the C.V. the greater the reliability in the estimate. Note that the C.V.'s estimate the expected error due to sampling, not other types of errors such as measurement errors.

Appendix Table 1. Selected items and related coefficients of variation for the United States, 1973.

Item	Percent of Farm Families Reporting	Average <sup>1/</sup>	Coefficient of Variation
Family size	100.0	3.56	1.30
Age of farm operator	100.0	50.80	0.55
Family income before taxes (all)	100.0	12,027	1.14
Family income before taxes (not including those with farm income only)	80.6	12,624	1.23
Family income before taxes (with farm income only)	8.1	9,031	5.71
Family income before taxes (with negative farm income)	19.4	9,548	2.99
Off-farm income	91.9	7,469	2.17

<sup>1/</sup>Average is in dollars for all items except Family Size and Age of farm operator.

Source: Based on special tabulations from the 1973 Farm Family Living Expenditures Survey.

Appendix Table 2. Incomes and family characteristics of families with farm income by regions, 1973.

Region and Income Class	Number of Farm Families (thousand)	Average Family Income (dollars)	Average Net Farm Income (dollars)	Average Size of Family (number)	Average Age of Farm Operator (years)	Full-Time Earners per Farm (number)
<u>Northeast</u>						
Less than \$3,000	24	740	-609	2.84	52.8	0.88
\$3,000-4,999	22	3,933	1,651	2.92	53.8	0.88
\$5,000-9,999	48	7,268	2,473	3.94	51.5	1.13
\$10,000-14,999	39	11,994	3,053	3.90	46.2	1.17
\$15,000-24,999	42	19,045	3,883	4.39	47.6	1.52
\$25,000 or more	7	32,831	10,309	4.62	52.5	2.25
All	182	10,829	2,753	3.80	50.0	1.18
<u>Lake States</u>						
Less than \$3,000	24	1,288	99	3.09	53.5	0.87
\$3,000-4,999	45	4,086	2,389	3.02	50.9	1.05
\$5,000-9,999	87	7,546	4,483	3.94	49.0	1.15
\$10,000-14,999	76	12,234	6,283	4.84	46.7	1.39
\$15,000-24,999	58	18,597	9,124	4.41	48.4	1.41
\$25,000 or more	14	35,328	17,739	5.43	50.0	1.79
All	304	11,155	5,803	4.13	48.7	1.25
<u>Corn Belt</u>						
Less than \$3,000	49	1,505	313	2.57	56.2	0.74
\$3,000-4,999	50	3,996	1,614	2.77	58.6	0.72
\$5,000-9,999	133	7,466	3,357	3.47	50.9	0.95
\$10,000-14,999	171	12,568	5,657	3.74	46.6	1.20
\$15,000-24,999	159	19,228	9,873	4.20	45.4	1.42
\$25,000 or more	82	35,288	25,584	3.72	50.0	1.37
All	644	14,709	8,131	3.64	49.4	1.16

Continued--

Appendix Table 2. Incomes and family characteristics of families with farm income by regions, 1973. (continued)

Region and Income Class	Number of Farm Families (thousand)	Average Family Income (dollars)	Average Net Farm Income (dollars)	Average Size of Family (number)	Average Age of Farm Operator (years)	Full-Time Earners per Farm (number)
<u>Northern Plains</u>						
Less than \$3,000	13	1,373	649	3.11	55.6	0.89
\$3,000-4,999	34	4,278	2,567	3.08	51.2	0.88
\$5,000-9,999	93	7,581	4,801	3.52	50.4	1.00
\$10,000-14,999	67	12,350	7,564	4.00	46.4	1.30
\$15,000-24,999	51	18,591	10,094	3.84	45.0	1.32
\$25,000 or more	14	30,498	22,647	3.45	56.4	1.09
All	272	11,395	6,991	3.62	51.0	1.12
<u>Appalachian</u>						
Less than \$3,000	88	1,981	632	2.39	61.2	0.48
\$3,000-4,999	90	3,955	1,416	2.69	59.9	0.74
\$5,000-9,999	129	7,422	1,557	3.44	51.6	1.19
\$10,000-14,999	90	12,215	2,011	3.85	46.3	1.49
\$15,000-24,999	50	18,614	3,047	3.78	45.7	1.63
\$25,000 or more	10	42,846	10,145	4.10	42.0	1.60
All	457	8,787	1,924	3.23	53.2	1.06
<u>Southeast</u>						
Less than \$3,000	23	1,748	384	2.94	60.6	0.44
\$3,000-4,999	26	4,014	1,412	2.95	59.5	0.65
\$5,000-9,999	71	7,709	2,487	3.37	53.7	1.11
\$10,000-14,999	41	12,494	2,336	3.52	51.8	1.21
\$15,000-24,999	47	18,391	3,614	4.13	46.6	1.55
\$25,000 or more	11	42,798	26,044	3.44	52.2	1.44
All	219	11,700	3,575	3.47	53.3	1.12

Continued--

Appendix Table 2. Incomes and family characteristics of families with farm income by regions, 1973. (continued)

Region and Income Class	Number of Farm Families (thousand)	Average Family Income (dollars)	Average Net Farm Income (dollars)	Average Size of Family (number)	Average Age of Farm Operator (years)	Full-Time Earners per Farm (number)
<u>Delta</u>						
Less than \$3,000	36	1,843	198	2.48	60.0	0.52
\$3,000-4,999	31	4,104	972	3.29	56.3	0.92
\$5,000-9,999	53	7,313	1,642	3.45	51.2	1.09
\$10,000-14,999	32	12,150	2,260	3.75	46.5	1.42
\$15,000-24,999	19	18,517	5,025	3.52	47.6	1.24
\$25,000 or more	3	41,336	4,260	2.75	52.5	0.75
All	174	8,446	1,875	3.28	52.6	1.02
<u>Southern Plains</u>						
Less than \$3,000	26	1,693	496	1.90	65.0	0.60
\$3,000-4,999	36	4,082	1,288	3.07	55.0	0.57
\$5,000-9,999	81	7,735	1,720	3.77	52.3	1.08
\$10,000-14,999	65	12,571	3,671	3.64	47.9	1.28
\$15,000-24,999	62	17,962	7,633	3.65	46.1	1.24
\$25,000 or more	33	41,764	27,201	3.57	51.8	1.14
All	303	13,993	6,136	3.28	51.1	1.07
<u>Mountain</u>						
Less than \$3,000	17	1,088	-174	2.57	55.7	0.71
\$3,000-4,999	10	4,099	1,026	3.56	53.3	0.56
\$5,000-9,999	40	7,263	2,556	3.54	52.9	1.20
\$10,000-14,999	23	12,616	4,682	4.45	47.5	0.95
\$15,000-24,999	24	19,281	10,985	4.19	48.1	1.19
\$25,000 or more	21	45,876	27,973	4.00	47.9	1.32
All	135	15,553	8,086	3.77	50.7	1.07

Continued--

Appendix Table 2. Incomes and family characteristics of families with farm income by regions, 1973. (continued)

Region and Income Class	Number of Farm Families (thousand)	Average Family Income (dollars)	Average Net Farm Income (dollars)	Average Size of Family (number)	Average Age of Farm Operator (years)	Full-Time Earners per Farm (number)
<u>Pacific</u>						
Less than \$3,000	7	-101	-1,658	2.29	64.3	0.71
\$3,000-4,999	16	4,026	456	2.38	62.5	0.75
\$5,000-9,999	39	7,758	865	3.54	49.5	0.82
\$10,000-14,999	39	12,585	2,547	3.49	45.9	1.13
\$15,000-24,999	38	19,073	5,269	3.71	48.7	1.21
\$25,000 or more	21	36,887	16,784	3.48	45.2	1.43
All	160	14,728	4,529	3.39	49.9	1.06

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

Appendix Table 3. Average family net money income, net farm income, and average amount received from specified sources by those receiving, by regions and farm income status, 1973.

Region and Farm Income Status	Number of Farms	Average Family Net Money Income	Net Farm Income	Average Amount Received by those Receiving			
				Nonfarm <sup>1/</sup> Business	Wages & Salaries <sup>2/</sup>	Pensions <sup>3/</sup>	Investments <sup>4/</sup>
-----dollars-----							
<u>Northeast</u>							
All Farm Families	182	10,829	2,753	4,917	8,476	1,975	938
With Farm Profits	126	11,061	4,409	4,476	6,873	2,459	952
With Farm Losses	56	10,287	-1,120	5,614	11,682	879	899
<u>Lake States</u>							
All Farm Families	304	11,155	5,803	4,877	6,671	1,661	621
With Farm Profits	273	11,496	6,532	4,304	6,444	1,740	656
With Farm Losses	31	7,944	-1,058	9,175	8,052	1,240	306
<u>Corn Belt</u>							
All Farm Families	644	14,709	8,130	4,467	7,655	2,100	808
With Farm Profits	544	15,633	9,652	4,304	7,056	2,034	832
With Farm Losses	100	9,483	-463	5,628	10,350	2,347	690
<u>Northern Plains</u>							
All Farm Families	272	11,395	6,991	3,695	5,604	2,215	859
With Farm Profits	249	11,595	7,663	3,750	4,951	2,167	901
With Farm Losses	23	9,112	-822	3,365	10,512	2,597	484
<u>Appalachian</u>							
All Farm Families	457	8,787	1,924	7,836	7,772	1,773	645
With Farm Profits	370	8,676	2,489	7,381	7,426	1,605	682
With Farm Losses	87	9,273	-563	8,859	9,006	2,437	530
<u>Southeast</u>							
All Farm Families	219	11,700	3,575	7,116	9,415	2,474	923
With Farm Profits	163	12,645	4,852	6,761	9,722	1,760	858
With Farm Losses	56	8,887	-194	9,013	8,590	3,824	1,203

Continued--



Appendix Table 3. Average family net money income, net farm income, and average amount received from specified sources by those receiving, by regions and farm income status, 1973. (continued)

Region and Farm Income Status	Number of Farms	Average Family Net Money Income	Net Farm Income	Average Amount Received by those Receiving			
				Nonfarm Business <sup>1/</sup>	Wages & Salaries <sup>2/</sup>	Pensions <sup>3/</sup>	Investments <sup>4/</sup>
-----dollars-----							
<u>Delta</u>							
All Farm Families	174	8,446	1,875	6,536	6,497	1,507	1,459
With Farm Profits	124	8,801	2,763	5,996	6,010	1,596	1,619
With Farm Losses	50	7,553	-358	7,724	7,429	1,301	804
<u>Southern Plains</u>							
All Farm Families	303	13,993	6,136	7,141	7,715	2,051	1,931
With Farm Profits	235	14,967	7,685	6,842	6,903	2,166	1,903
With Farm Losses	68	10,548	-656	7,867	9,647	1,547	2,029
<u>Mountain</u>							
All Farm Families	135	15,553	8,068	9,879	7,745	2,196	2,134
With Farm Profits	121	15,731	9,215	10,268	5,887	2,265	2,264
With Farm Losses	14	13,976	-2,065	7,350	15,854	1,860	309
<u>Pacific</u>							
All Farm Families	160	14,728	4,259	11,003	9,820	1,929	2,029
With Farm Profits	92	17,568	8,217	12,747	9,239	2,002	3,363
With Farm Losses	68	10,786	-1,235	9,405	10,369	1,828	1,754
<u>United States</u>							
All Farm Families	2,850	12,027	5,097	6,316	7,685	1,939	1,119
With Farm Profits	2,297	12,624	6,500	5,913	7,010	1,879	1,143
With Farm Losses	553	9,548	-724	7,552	9,786	2,143	1,021

<sup>1/</sup> Operation of non-farm business or professional practice.

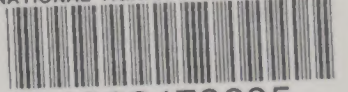
<sup>2/</sup> Cash wages, salaries, commissions, tips.

<sup>3/</sup> Pensions, retirement, social security, veterans benefits, welfare, unemployment compensation, etc.

<sup>4/</sup> Rental income from non-farm property, interest, dividends, royalties, etc.

Source: Special tabulations from the 1973 Farm Family Living Expenditures Survey.

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