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# 1988 Farm Costs and Returns Survey Data

## Selected State and Region Highlights

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**1988 FARM COSTS AND RETURNS SURVEY DATA: SELECTED STATE AND REGION HIGHLIGHTS**, Economic Research Service, Agriculture and Rural Economy Division and National Agricultural Statistics Service, Estimates Division, U.S. Department of Agriculture. Staff Report No. AGES 9012

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**Abstract**

(This publication is a collection of 34 reports highlighting 1988 data compiled from the annual Farm Costs and Returns Survey (FCRS). The State and regional level reports focus on financial characteristics of farms and farm operators from survey results. A farm's economic status is evaluated using the net cash income position and the ratio of debts to assets relationship. Regional production expenditures are compared by farm type. A brief discussion of farm characteristics by region are also presented.)

**Keywords:** Farm Costs and Returns Survey, net cash farm income, debt/asset ratio, farm production expenditures.

## Preface

This report is one of several publications concerning the financial conditions and characteristics of U.S. farms and ranches and farm sector economics available from the U.S. Department of Agriculture. Several other reports are listed below for your reference and purchase.

<u>Other Publications:</u>	<u>Agency</u>	<u>Telephone Number</u>
Economic Indicators of the Farm Sector (5 issues)	ERS/USDA	301-953-2515
Farm Operating and Financial Characteristics, 1988	ERS/USDA	301-953-2515
Financial Characteristics of U.S. Farms, January 1, 1989	ERS/USDA	301-953-2515
Farm Production Expenditures	NASS/USDA	202-447-4021

This report was prepared by the Agriculture and Rural Economy Division, ERS and Estimates Division, NASS. Principal authors of the report are Robert McElroy and Mitch Morehart (202-786-1801), Farm Sector Financial Analysis Branch, ERS and Douglas Kleweno (202-447-4214), Economic Statistics Branch, NASS.

Other ERS and NASS colleagues contributing to the report are thanked for their reviews and suggestions. For further information on the findings, contact the authors or the nearest NASS State Statistical Office.



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Arkansas	B.F. Klugh	501-378-5145
California	H.J. Tippet	916-551-1533
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Delaware	T.W. Feurer	302-697-4490
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Wyoming	S.J. Hundley	307-772-2181

## Contents

	Page
Introduction	1
Criteria for Publication	1
Survey Description	2
Data Reliability and Comparability	3
Farm Production Regions	4
Definitions of Financial Terms	5
Collection of Reports	
Northeast	6
Pennsylvania	7
Delaware, Maryland, New Jersey, New York	11
New England States	15
Lake States	19
Michigan	20
Minnesota	24
Wisconsin	28
Corn Belt	32
Indiana	33
Illinois	37
Iowa	41
Missouri	45
Ohio	49
Northern Plains	53
Kansas	54
Nebraska	58
North Dakota	62
South Dakota	66
Appalachia	70
Kentucky	71
Tennessee	75
Virginia, West Virginia	79



Southeast	83
Alabama	84
Florida	88
Georgia	92
Southeast States	96
Delta	100
Arkansas	101
Mississippi	105
Louisiana	109
Southern Plains	113
Oklahoma	114
Texas	118
Mountain	122
Colorado	123
Idaho	127
Montana, Wyoming, Utah	131
Nevada, Arizona, New Mexico	135
Pacific	139
California	140
Oregon	144
Washington	148

# 1988 FARM COSTS AND RETURNS SURVEY DATA

## SELECTED STATE AND REGIONAL HIGHLIGHTS

### Introduction

This publication represents a collection of data presented by selected State and regional levels as prepared jointly by the Economic Research Service (ERS) and National Agricultural Statistics Service (NASS) of the U.S. Department of Agriculture. The report first describes the criteria for publishing financial data at the designated level followed by a discussion of the Farm Costs and Returns Survey (FCRS) procedures. Comparability, reliability, and definitions associated with these data are then presented. The collection of State and regional reports follow with highlights by region. The collection of four page summary reports were distributed by NASS through their State offices listed in the preface.

### Criteria For Publication

A primary objective of this joint project was to provide survey respondents and other data users with feedback of highlights of the findings from the Farm Costs and Returns Survey conducted in the spring of 1989. The data are presented at the State level where possible. The criteria for inclusion of a particular State are: (1) a target of 300 usable survey reports from farms and ranches sampled, (2) a minimum of thirty observations reported for a particular data cell and, (3) a coefficient of variation no greater than 50 percent for any data element. State data not generally meeting these standards are reported on a regional or sub-regional basis. The stability of survey sample sizes and sampling variability are also considered to ensure comparability with future reports.

The farm production region standard for most economic and labor statistics are used with some modest adjustments for other geographical considerations (figure 1). The major exception to the ten production region boundaries is the Mountain region. It was split into a northern and southern region for greater homogeneity.

State level data are presented for the first time in 1988 for Alabama, Idaho, Louisiana, and Oregon. Every attempt was to present data in a manner for comparison at the lowest possible level subject to data reliability and constraints. Expenditure data are only presented at the regional level. Farm income and other financial data are published as averages or ratios at the State, regional or U.S. levels. Demographic data are provided at the State and regional levels.

The variables selected for publication are limited to an overview of the financial performance of various types and sizes of farms. It is not intended to serve as an exhaustive or detailed presentation. In the preface, several other supporting publications are identified and should be referenced for such purposes.



## Survey Description

The farm financial information contained in this publication is derived from the annual Farm Costs and Returns Survey (FCRS) conducted by the Department of Agriculture in February and March of 1989. During the nationwide survey, over 26,000 farms and ranches were contacted. The FCRS is an integrated survey which combines multiple versions of a questionnaire to simultaneously obtain production expenses, capital purchases, financial information, detailed production practice data, and other farm operating characteristics.

For the survey, a farm is defined as any establishment producing or selling at least \$1,000 worth of agricultural products. Establishments included in the survey are those listed in the Federal Standard Industrial Code (SIC) for agricultural production of crops and major livestock group codes 01 and 02, respectively. This classification includes field crops, vegetables, fruits, and tree nuts, horticultural specialties, animal specialties, cattle, hogs, sheep, goats, horses, poultry, eggs, turkeys, milk, and honey.

A probability sample was drawn from a list of larger and also specialized type operations. Because not all farms are on the list, a second probability sample of small land areas was drawn to ensure complete coverage of the target population. Farm operators residing in these selected land areas, after adjusting for list duplication, represent farms not surveyed from the list sample.

Data collection procedures are uniform and consistent across the Nation by using extensive training and field supervision of data collectors. Efforts are also undertaken to minimize other nonsampling errors by using extensive edit and data analysis. The extent of nonsampling errors is not known or directly measurable.

Since the FCRS is a probability sample, each respondent represents a number of farms of similar size and type. Thus, sample data can be expanded by appropriate weights to represent the U.S. population of farm operators. Estimates based on the expanded sample differ from what would have occurred if a complete enumeration had been taken. Sampling variability can be measured by the coefficient of variation to provide a perspective on the reliability of the data.

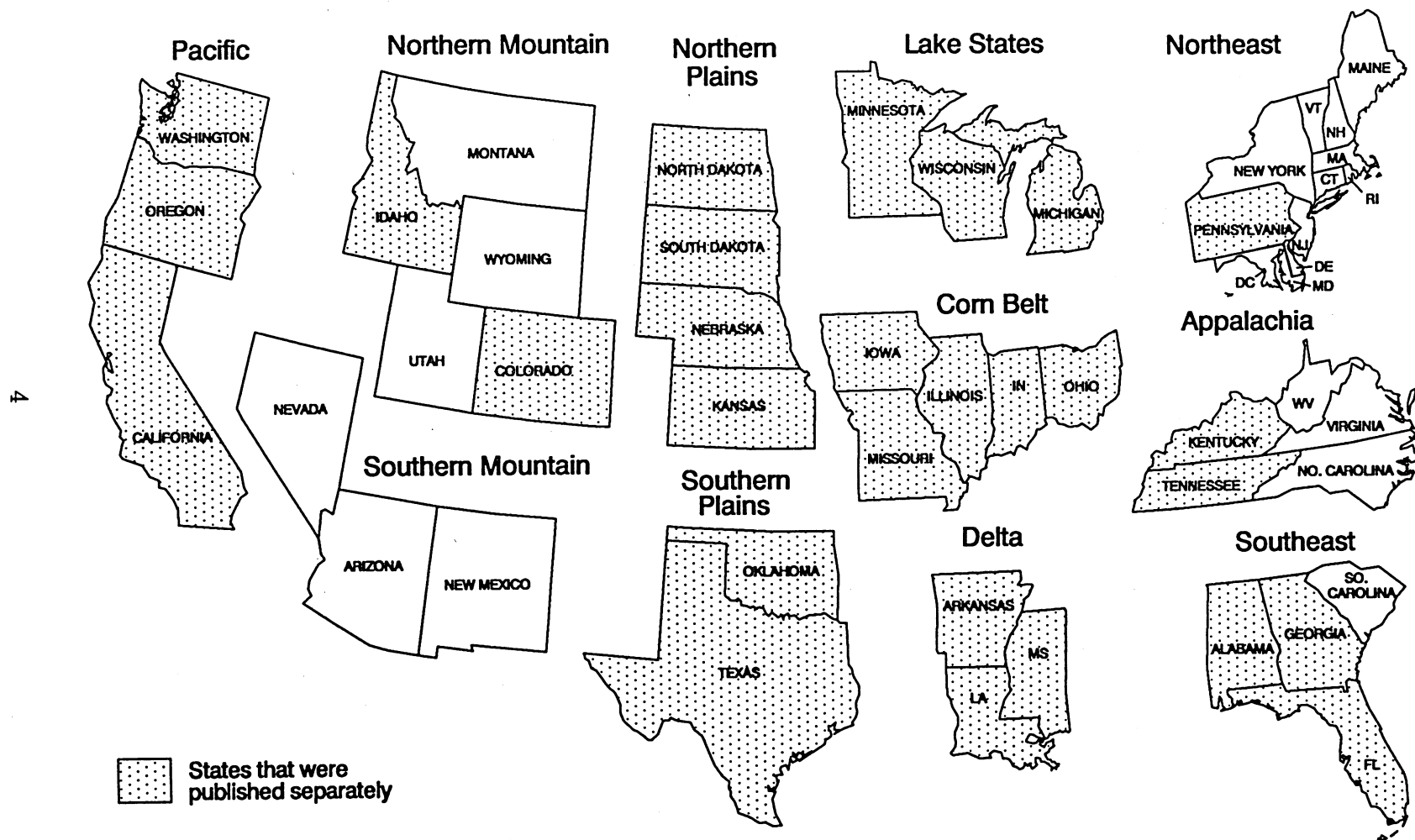
### Data Reliability and Comparability

The 1988 FCRS target population is defined as "any establishment from which \$1,000 or more of agricultural products were sold or would normally be sold during the year." In 1986 and earlier surveys, the population included "any farm that sold or spent at least \$1,000 for agricultural production." The change in population definition ensures comparability with other NASS survey data used to estimate farm numbers. The probability nature of the survey allows expansion of the data so as to represent the U.S. population of farm operators.

NASS production expenditure data differ from the Economic Research Service (ERS) total cash operating expense estimates because the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. In general, total farm production expenditures exceed cash operating expenses by the amount of landlord expenses and capital purchases. This differs from other aggregate sources of information of the U.S. farm sector (for example: Economic Indicators of The Farm Sectors Series, USDA) where income, assets, and debt attributed to integrators and other owners of resources used in production are not summarized as part of the "farm operator" expenditures. FCRS expenditures for the "farm operator" however combine operator, landlord, and contractor data. Contractor only data were collected by the FCRS in 1988 for the first time and are reported in "Financial Characteristics of U.S. Farms, January 1, 1989."



**Figure 1. Farm Production Regions**



## Definitions Of Terms Used For Financial Analysis Of Farm Operators

**Crop sales.** Cash receipts from the sales of all crop commodities during 1987 plus net Commodity Credit Corporation loan receipts.

**Farm business liabilities.** All outstanding liabilities as of December 31, 1987, associated with the Production Credit Association, Farmers Home Administration, commercial banks, Federal land banks, merchants and dealers, life insurance companies, individuals who sold land, Commodity Credit Corporation, and any other lenders.

**Farm business assets.** Market value of owned land and buildings, farm equipment, livestock inventory, crop inventory, purchased inputs and supplies on hand, and other financial assets of the farm business.

**Farm business net worth.** Total farm business assets minus total farm business liabilities.

**Gross cash farm income (GCFI).** Crop and livestock sales plus other farm income.

**Livestock sales.** Cash receipts from the sales of all livestock and poultry products during 1987 including milk, eggs, wool, and honey.

**Net cash farm income (NCFI).** Gross cash farm income minus total cash farm operating expenses.

**Nonfarm income.** Includes the net income from an off farm business, off-farm wages and salaries, interest and dividend earnings, and any other source of off-farm income such as rental properties and Social Security retirement.

**Other farm income.** Government payments (including PIK certificates), income from custom work and machine hire, non-contract livestock grazing, income received under contractual arrangements, income from land rented to others, and income from hunting, fishing, and other outdoor recreation.

**Total cash farm operating expenses.** Variable and fixed cash outlays, excluding principal, associated with the operation of the farm business, including interest, labor, feed, seed, repairs and maintenance, fuels and oils, utilities, transportation and storage, rent and lease payments, supplies, livestock purchased, veterinary fees, fertilizer and chemicals, machine-hire, and other miscellaneous expenses.

# NORTHEAST



The Northeast farm operators represented just over 7 percent of all farms in 1988. Dairy farms were the most common livestock production specialty, while other crop farms (which consist of potatoes, hay, silage, forage, or a nonspecialized combination of field crops and cash grains) were the most common among crop specialties. An estimated 69 percent of farms had gross sales below \$40,000 which was nearly identical to the U.S. distribution by economic class. Almost 89 percent were organized as individual farm operations and 9 percent as partnerships. The remaining 2 percent were either cooperatives or corporate farms. Almost half of all farms operated less than 100 acres and only 2 percent farmed more than 1,000 acres. Fifty-seven percent of farm operators owned all of the land they operated. Full tenants accounted for 7 percent of all farms operated and the remaining 36 percent were partial owners of the land they farmed in 1988.

Half of the total land operated in the Northeast was devoted to crops, 14 percent to pasture, 3 percent was idle under Government programs, and the remainder went for summer fallow, woodland or some other use. Northeast farms accounted for 6 percent of crop sales in 1988 and 9 percent of U.S. livestock sales. Nursery and greenhouse products, vegetables, and fruits accounted for the largest proportion of 1988 crop sales in the Northeast at 43, 13, and 12 percent, respectively. Milk and dairy products represent nearly three-fourths of gross sales of livestock and poultry products. Farms participating in Government programs received 2 percent of total payments. Nonfarm income represented 8 percent of total nonfarm income reported by all farm operators. The typical farm operator was 51 years old and devoted an average of 38 hours per week to working on the farm. One-half of the farm operators considered farming a secondary occupation. Eighty-five percent reported nonfarm income in 1988. Eighteen percent participated in Government agricultural programs.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Pennsylvania

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, financial conditions of Pennsylvania farm operators improved during 1988. An estimated 42 percent of farms were in a favorable financial position, up from 38 percent a year ago. At the opposite extreme, 7 percent of farms were financially vulnerable due to a combination of negative net income and high debt. This was identical to the U.S. value, but 2 points higher than for the region.

Average net farm income increased slightly to \$13,100, but was over \$4,000 less than the U.S. average in 1988. The share of farms with positive net cash farm income increased from 43 percent in 1987 to 46 percent. Average net worth was estimated at over \$500,000 giving Pennsylvania the highest value in the region. The average debt/asset ratio dropped from 0.13 a year ago to 0.06 which was lowest in the region and one-half the U.S. average. Even though the average debt/asset ratio was lower, there were 11 percent of farms with relatively high debt. These balance sheet measures are influenced by changes in land values and reflect the variability in market conditions particularly for farms surrounding urban areas.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Pennsylvania farm financial position

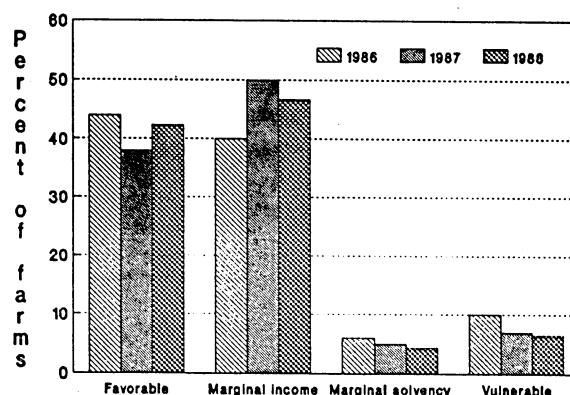


Table 1--Financial performance of Northeast, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Pennsylvania	42	47	4	7
DE, MD, NJ, and NY	43	47	6	4
New England States	46	45	6	3
Northeast	43	47	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	DE, MD NJ, NY	New England States	PA	Northeast	U.S.
Acres per farm					
Acres operated 1/	210	170	150	180	470
Dollars per farm					
Crop sales	26,800	23,700	15,600	21,700	26,200
+ Net CCC loans	-300	200	-200	-200	-900
+ Livestock sales	42,400	35,500	43,000	41,500	38,100
+ Other farm income	4,800	4,300	3,000	4,000	9,000
= Gross cash farm income	73,700	63,700	61,400	67,000	72,400
- Total operating expenses	58,200	52,400	48,300	53,200	55,000
= Net cash farm income	15,500	11,300	13,100	13,800	17,400
Nonfarm income	30,700	50,700	22,200	30,400	28,900
Net worth	472,100	425,000	549,500	496,500	311,300
Ratio					
Debt/asset	0.10	0.10	0.06	0.08	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.



Table 3--Average operating and financial characteristics for Pennsylvania farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	42	47	4	7	100
Economic class:					
Sales above \$250,000	70	d	21	d	100
Sales \$40,000-\$250,000	77	10	10	3	100
Sales below \$40,000	26	64	2	8	100
Type of farm:					
Cash grain	47	48	d	d	100
Other crops	40	48	1	11	100
Dairy	75	10	12	3	100
Other livestock and poultry	16	76	2	6	100
			Acres per farm		
Operating:					
Acres owned	120	70	90	80	90
Acres operated	210	90	220	150	150
			Years		
Operator age	48	53	42	41	50
			Dollars per farm		
Financial:					
Crop sales	31,000	2,400	27,800	600	15,600
+ Net CCC loans	-500	0	400	0	-200
+ Livestock sales	70,600	5,600	193,600	30,800	43,000
+ Other farm income	4,500	800	13,600	1,400	3,000
= Gross cash farm income	105,600	8,800	235,400	32,800	61,400
- Cash operating expenses	70,600	13,900	162,200	72,800	48,300
= Net cash farm income	35,000	-5,100	73,200	-40,000	13,100
Nonfarm income	14,600	27,600	11,900	39,400	22,200
Total assets	345,700	866,500	414,300	246,100	584,800
Total debt	26,800	11,700	224,800	133,200	35,400
			Ratio		
Ratios:					
Debt/asset	0.08	0.01	0.54	0.54	0.06
Return on assets	.03	-.01	.01	-.17	0
Cash expenses/gross income	.67	1.57	.69	2.22	.79
Interest/gross income	.03	.12	.08	.19	.05

d = Data insufficient for disclosure.

The middle economic class of \$40,000 to \$250,000 had the highest percentage of farms in a favorable financial position, followed by the largest class. Many farms in both classes, however, were carrying high debt levels. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms. However, these farms are normally regarded as part-time operations that are more dependent on nonfarm sources of income.

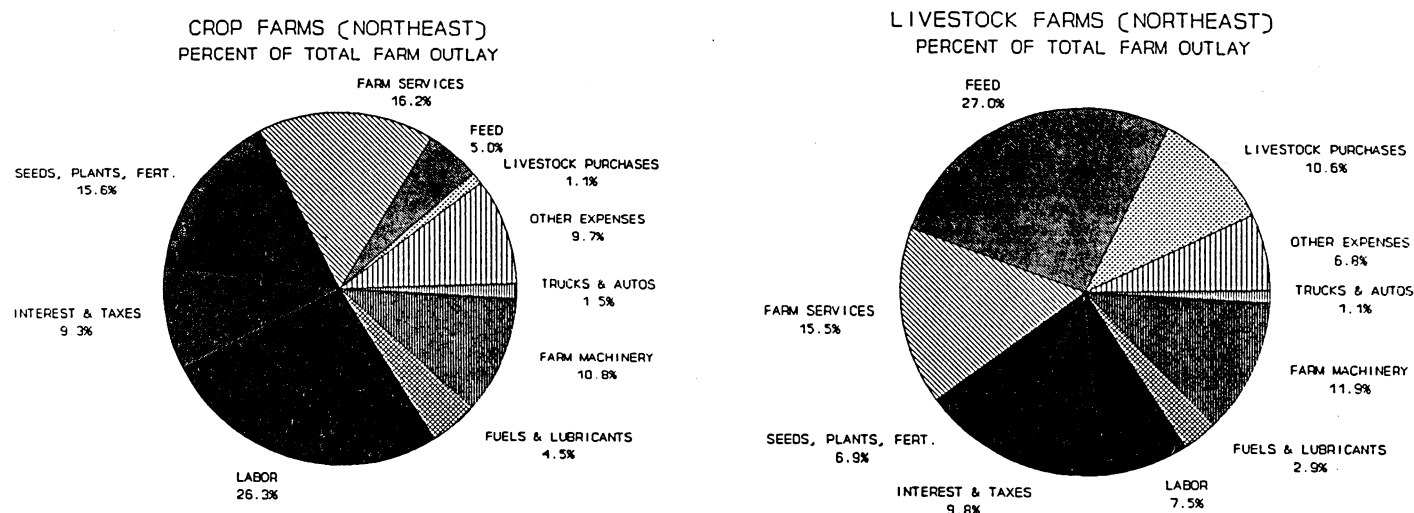
Dairy farms had the highest proportion, 75 percent, in a favorable financial position when compared with other farm types. Farms that specialized in the production of livestock other than dairy had the fewest favorable farms when compared with all other type of farm categories. Over 70 percent of these farms had negative net cash farm income at the end of 1988.

Pennsylvania farms averaged 150 acres, 20 acres more than last year. An average of 60 percent of

these acres were owned by the farm operator. Farm size ranged from 90 acres for farms in the marginal income category to 220 acres for marginally solvent operations. The average age of farm operators was 50 years with marginal income farms having the oldest (53 years) and vulnerable farms, the youngest (41 years).

Marginally solvent farms had the highest net cash farm income with an average debt/asset ratio of 0.54. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficit of marginal income farms was more than offset by nonfarm earnings of their households. Vulnerable farms had the highest nonfarm income when compared to other financial categories, but it was \$600 below their cash losses from farming.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northeast totaled \$7.9 billion, down 2.5 percent from 1987, according to the National Agricultural Statistic Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Decreased regional expenses for feed, farm services, interest, building and fencing, and trucks and autos were partially offset by the remaining major expenditures.

Expenditures by livestock farms at \$5.3 billion were 67 percent of the total regional expenses compared to 76 percent in 1987. Major expenses items on livestock farms were feed (27 percent) and farm services (16 percent). Nearly 60 percent of the crop farm expenses in the Northeast were for labor (26 percent), farm services (16 percent) and seeds, plants, fertilizer, and chemicals (16 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northeast (CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, AND VT)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	2,581,152	5,279,834	7,860,986	118,361,751
Livestock and poultry	29,187	560,811	589,998	13,607,228
Feed	129,524	1,423,470	1,552,994	17,914,533
Farm services	417,246	820,211	1,237,457	24,630,395
Ag. chemicals and sprays	110,457	76,979	187,436	3,858,857
Fertilizer	170,776	201,927	372,703	6,957,661
Interest	118,248	335,212	453,460	8,365,499
Taxes (property and real estate)	121,571	180,449	302,020	3,927,991
Labor	679,798	397,532	1,077,330	10,224,049
Fuels and lubricants	115,774	151,115	266,889	4,450,295
Farm supplies	107,080	148,421	255,501	2,249,336
Building and fencing	96,889	158,099	254,988	2,226,172
Farm and land improvements	32,084	35,027	67,111	943,058
Total farm machinery	277,770	626,489	904,259	11,501,269
Seeds	121,227	87,589	208,816	3,692,164
Trucks and autos	39,336	61,360	100,696	2,058,496
Other unallocated expenses	14,184	15,144	29,328	1,754,751

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### **In this report...**

Overall, financial conditions of Pennsylvania farm operators improved during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Pennsylvania Agricultural Statistics Services as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Delaware, Maryland, New Jersey, and New York

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

An estimated 43 percent of farms in Delaware, Maryland, New Jersey, and New York were considered in a favorable financial position during 1988. This was identical to the Northeast figure and only 3 percentage points below the value for all U.S. farms. At the opposite extreme, 4 percent of farms were regarded as financially vulnerable due to a combination of negative net income and high debt. This was 3 points below the value for all U.S. farms.

The average net cash farm income of \$15,500 was highest in the Northeast, but \$2,000 below the U.S. average of \$17,400. Also when compared to total U.S. farms, there was a greater share of farms in these States with negative income, although they had considerably less farms with high debt. The average debt/asset ratio of 0.10 was 3 percentage points below the ratio for U.S. farms. In further support of their strong solvency position, farms in these States had average net worth that was over \$160,800 above the U.S average in 1988.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--DE, MD, NJ, NY farm financial position

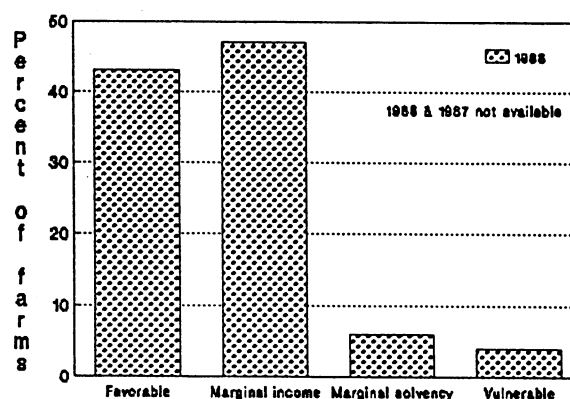


Table 1--Financial performance of Northeast, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Pennsylvania	42	47	4	7
DE, MD, NJ, and NY	43	47	6	4
New England States	46	45	6	3
Northeast	43	47	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	DE, MD NJ, NY	New England States	PA	Northeast	U.S.
<u>Acres per farm</u>					
Acres operated 1/	210	170	150	180	470
<u>Dollars per farm</u>					
Crop sales	26,800	23,700	15,600	21,700	26,200
+ Net CCC loans	-300	200	-200	-200	-900
+ Livestock sales	42,400	35,500	43,000	41,500	38,100
+ Other farm income	4,800	4,300	3,000	4,000	9,000
= Gross cash farm income	73,700	63,700	61,400	67,000	72,400
- Total operating expenses	58,200	52,400	48,300	53,200	55,000
= Net cash farm income	15,500	11,300	13,100	13,800	17,400
Nonfarm income	30,700	50,700	22,200	30,400	28,900
Net worth	472,100	425,000	549,500	496,500	311,300
<u>Ratio</u>					
Debt/asset	0.10	0.10	0.06	0.08	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Delaware, Maryland, New Jersey, and New York farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	42	48	6	4	100
Economic class:					
Sales above \$250,000	64	15	17	4	100
Sales \$40,000-\$250,000	60	22	14	4	100
Sales below \$40,000	33	60	2	5	100
Type of farm:					
Cash grain	44	45	d	d	100
Other crops	40	52	4	4	100
Dairy	62	22	11	5	100
Other livestock and poultry	24	67	3	6	100
			Acres per farm		
Operating:					
Acres owned	170	110	180	110	140
Acres operated	270	150	290	140	210
			Years		
Operator age	51	55	44	44	52
			Dollars per farm		
Financial:					
Crop sales	46,000	7,200	65,200	3,500	26,800
+ Net CCC loans	-200	-200	-200	-1,300	-300
+ Livestock sales	74,400	10,000	85,400	29,000	42,400
+ Other farm income	6,800	2,100	13,500	3,400	4,800
= Gross cash farm income	127,000	19,100	163,900	34,600	73,700
- Cash operating expenses	80,400	31,100	120,100	57,100	58,200
= Net cash farm income	46,600	-12,000	43,800	-22,500	15,500
Nonfarm income	23,200	34,400	11,400	87,300	30,700
Total assets	595,100	488,700	349,900	413,600	521,900
Total debt	40,000	23,500	183,100	246,500	49,800
			Ratio		
Ratios:					
Debt/asset	.07	.05	.52	.60	.10
Return on assets	.04	-.01	.12	-.03	.02
Cash expenses/gross income	.63	1.62	.73	1.65	.79
Interest/gross income	.03	.13	.08	.33	.05

Financial performance was directly related to farm size in terms of gross sales. The share of farms categorized as favorable, at 64 percent, was highest for farms with gross sales in excess of \$250,000 and fell to 33 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms. However, these farms are normally regarded as part-time operations that are more dependent on nonfarm sources of income.

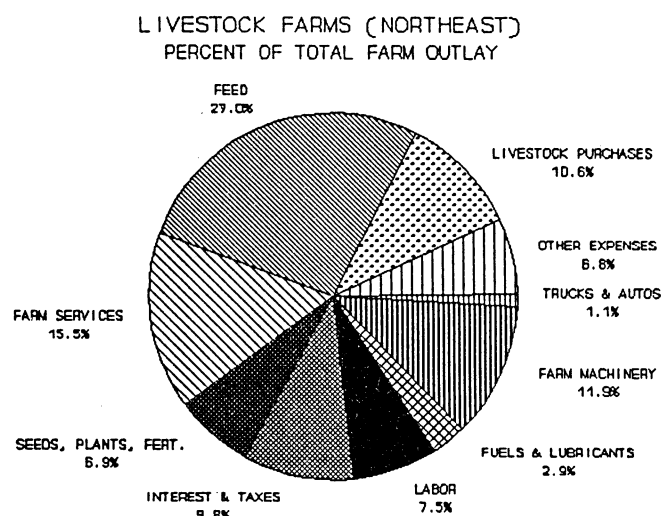
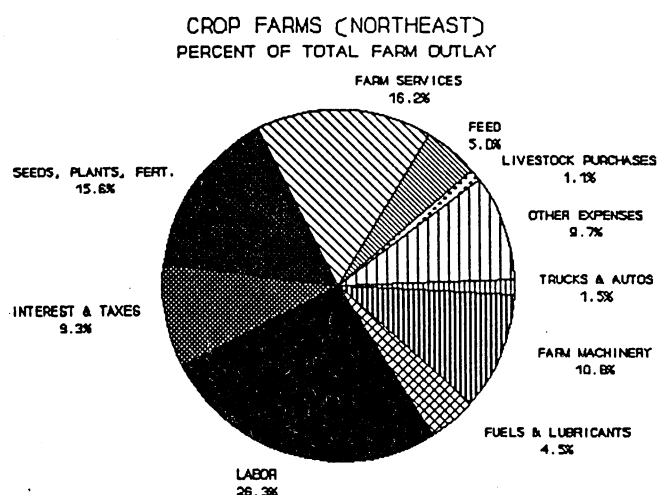
Dairy farms had the highest proportion in a favorable financial position, 62 percent, when compared with other farm types. Farms that specialized in the production of livestock other than dairy had the fewest favorable farms when compared with all other type of farm categories. Over 70 percent of these farms had negative net cash farm income at the end of 1988.

The average farm size in these States was 210 acres which was highest in the Northeast. Farm operators owned two-thirds of total land operated. Acres operated and land tenure varied by financial status. Vulnerable farms were the smallest, and owned a higher portion of land operated. Marginally solvent farms were the largest and rented the largest share of land operated. Farm operator age ranged from 44 years for farms in the marginal solvency and vulnerable categories to 55 years for the marginal income group.

Marginally solvent farms had net cash farm income of \$43,800, the highest return on assets, and an average debt/asset ratio of 0.52. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficits of both marginal income and vulnerable farms were more than offset by nonfarm earnings of household members.



Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northeast totaled \$7.9 billion, down 2.5 percent from 1987, according to the National Agricultural Statistic Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. The Decreased regional expenses for feed, farm services, interest, building and fencing, and trucks and autos were partially offset by the remaining

major expenses. Expenditures by livestock farms at \$5.3 billion were 67 percent of the total regional expenses compared to 76 percent in 1987. Major expenses items on livestock farms were feed (27 percent) and farm services (16 percent). Nearly 60 percent of the crop farm expenses in the Northeast were for labor (26 percent), farm services (16 percent) and seeds, plants, fertilizer, and chemicals (16 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northeast (CT, DE, ME, MD, MA, NH, NJ, NY, PA, RI, AND VT)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
			1,000 Dollars	
Total farm production expenditures	2,581,152	5,279,834	7,860,986	118,361,751
Livestock and poultry	29,187	560,811	589,998	13,607,228
Feed	129,524	1,423,470	1,552,994	17,914,533
Farm services	417,246	820,211	1,237,457	24,630,395
Ag. chemicals and sprays	110,457	76,979	187,436	3,858,857
Fertilizer	170,776	201,927	372,703	6,957,661
Interest	118,248	335,212	453,460	8,365,499
Taxes (property and real estate)	121,571	180,449	302,020	3,927,991
Labor	679,798	397,532	1,077,330	10,224,049
Fuels and lubricants	115,774	151,115	266,889	4,450,295
Farm supplies	107,080	148,421	255,501	2,249,336
Building and fencing	96,889	158,099	254,988	2,226,172
Farm and land improvements	32,084	35,027	67,111	943,058
Total farm machinery	277,770	626,489	904,259	11,501,269
Seeds	121,227	87,589	208,816	3,692,164
Trucks and autos	39,336	61,360	100,696	2,058,496
Other unallocated expenses	14,184	15,144	29,328	1,754,751

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### **In this report...**

Overall, a lower percentage of farms in Delaware, Maryland, New Jersey, and New York had financial difficulties than for all U.S. farms during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Agricultural Statistics Services located in Delaware, Maryland, New Jersey, and New York as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: New England States

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Higher net incomes helped many farm operators in New England to improve their financial position in 1988, while increased levels of debt created financial difficulties for others. An estimated 46 percent of farms were in a favorable financial position, up from 39 percent in 1987. This was the highest percentage among States in the region and identical to the U.S. value. At the opposite extreme, 3 percent of farms were regarded as financially vulnerable due to a combination of negative net income and high debt. This represents a 2 percentage point increase over 1987, and 4 points below the value for all U.S. farms.

Average net cash farm income increased by \$1,400 during 1988 to \$11,300, largely as a result of lower operating expenses. The share of farms with positive incomes went from 41 to 49 percent reflecting the higher earnings. The average debt/asset ratio rose from 0.08 to 0.10 which was among the highest in the region although still below the U.S. average. Average net worth fell to \$425,000. This was the lowest value in the region, but over \$100,000 higher than the U.S. average. The proportion of farms with high debt increased by 5 percentage points.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--New England farm financial position

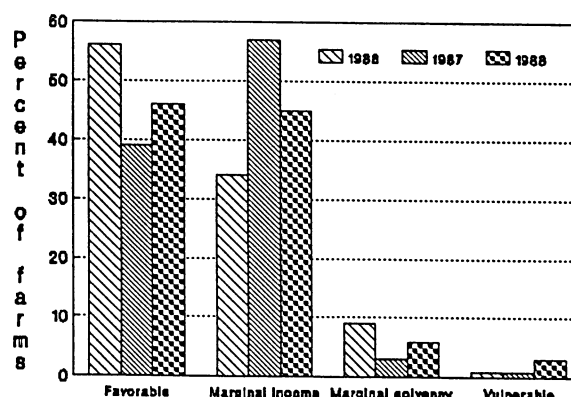


Table 1--Financial performance of Northeast, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Pennsylvania	42	47	4	7
DE, MD, NJ, and NY	43	47	6	4
New England States	46	45	6	3
Northeast	43	47	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	DE, MD NJ, NY	New England States	PA	Northeast	U.S.
Acres per farm					
Acres operated 1/	210	170	150	180	470
Dollars per farm					
Crop sales	26,800	23,700	15,600	21,700	26,200
+ Net CCC loans	-300	200	-200	-200	-900
+ Livestock sales	42,400	35,500	43,000	41,500	38,100
+ Other farm income	4,800	4,300	3,000	4,000	9,000
= Gross cash farm income	73,700	63,700	61,400	67,000	72,400
- Total operating expenses	58,200	52,400	48,300	53,200	55,000
= Net cash farm income	15,500	11,300	13,100	13,800	17,400
Nonfarm income	30,700	50,700	22,200	30,400	28,900
Net worth	472,100	425,000	549,500	496,500	311,300
Ratio					
Debt/asset ratio	0.10	0.10	0.06	0.08	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics New England States farms by  
income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	46	45	6	3	100
Economic class:					
Sales above \$250,000	82	9	6	3	100
Sales \$40,000-\$250,000	66	11	23	0	100
Sales below \$40,000	36	60	0	4	100
Type of farm:					
Vegetable, fruit, nursery	52	46	d	d	100
Other crops	39	61	0	0	100
Dairy	58	19	22	1	100
Other livestock and poultry	39	54	0	7	100
			<u>Acres per farm</u>		
Operating:					
Acres owned	170	100	170	50	130
Acres operated	230	110	190	60	170
			<u>Years</u>		
Operator age	51	52	36	37	50
			<u>Dollars per farm</u>		
Financial:					
Crop sales	41,000	7,300	25,800	d	23,700
+ Net CCC loans	300	0	0	d	200
+ Livestock sales	52,900	6,100	122,900	48,200	35,500
+ Other farm income	7,500	1,200	5,100	d	4,300
= Gross cash farm income	101,700	14,600	153,800	50,000	63,700
- Cash operating expenses	73,200	21,600	122,900	65,300	52,400
= Net cash farm income	28,500	-7,000	30,900	-15,300	11,300
Nonfarm income	29,100	67,400	18,700	d	50,700
Total assets	605,700	376,000	299,500	202,300	473,000
Total debt	44,100	25,200	219,900	134,700	47,900
			<u>Ratio</u>		
Ratios:					
Debt/asset	0.07	0.07	0.73	0.67	0.10
Return on assets	.03	.01	.03	-.02	.02
Cash expenses/gross income	.72	1.48	.80	1.31	.82
Interest/gross income	.04	.13	.14	.27	.07

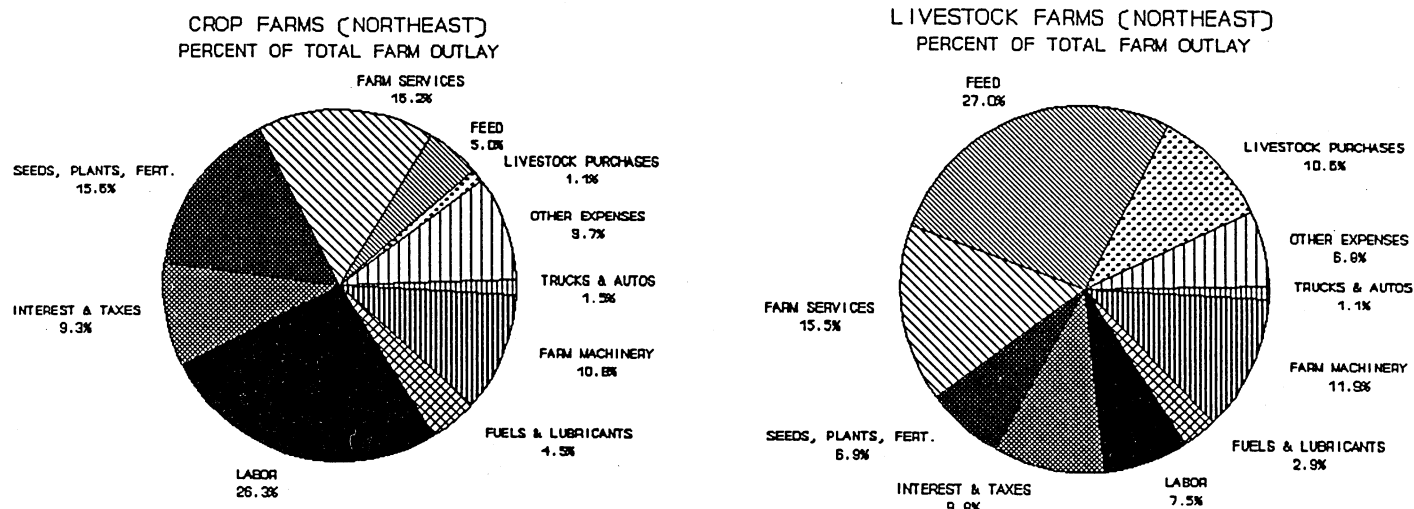
Financial performance was directly related to farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 82 percent and fell to 36 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms. However, these farms are normally regarded as part-time operations that are more dependent on nonfarm sources of income.

Dairy farms had the highest percentage of favorable farms at 58 percent followed by farms that specialized in the production of vegetables, fruits, and nursery or greenhouse products at 52 percent. More than one in five dairy farms had debt/asset ratio above 0.40 which was a larger share than for any other farm type in 1988. Over half of farms in the "other crop" and "other livestock" categories had negative net cash farm incomes at the end of the year. New England farms average 170 acres, 30 acres less than last year.

Farm operators owned over 75 percent of total land operated. Farm size varied by financial status with vulnerable operations having the smallest at 60 acres and favorable farms the largest at an average of 230 acres. The age of farm operators ranged from 36 years for farms in the marginal solvency category to 52 years for marginal income farms. The average age of operators for New England was 50 years.

Marginally solvent farms had the highest net cash farm income and return on assets with an average debt/asset ratio of 0.73. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficits of marginal income farms was more than offset by nonfarm earnings of their households.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northeast totaled \$7.9 billion, down 2.5 percent from 1987, according to the National Agricultural Statistic Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. The Decreased regional expenses for feed, farm services, interest, building and fencing, and trucks and autos were partially offset by the remaining

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## LAKE STATES



The Lake States, with 183,000 farm operators in 1988, represented 10 percent of all U.S. farms estimated from the survey. Livestock farms outnumbered crop farms by a margin of two to one. Dairy and beef, hog, or sheep specialties were the most common livestock enterprises, while cash grain producers accounted for over 60 percent of crop farms. The most common farm size in terms of gross sales was the less than \$10,000 category (31 percent) and the \$40,000 - \$99,999 class (22 percent). Over 90 percent of farms were organized as individual operations, 7 percent as partnerships, and the remaining 2 percent as corporations and cooperatives. Thirty percent of farms were less than 100 acres, while 86 percent of all farms in the Lake States were less than 500 acres. One-half of farm operators owned all of the land they operated in 1988. Full tenants represented 8 percent of all the farms, and the remaining 37 percent of farm operators were partial owners of total land operated.

Sixty-three percent of total land operated in the Lake States was devoted to crops, 12 percent to pasture, 10 percent was idle under Government programs, and the remainder went for summer fallow, woodland or some other use. Farm operators in the Lake States accounted for 16 percent of U.S. livestock sales and 9 percent of crop sales. Corn and soybeans accounted for largest share of crop sales in the Lake States at 28 and 23 percent, respectively. The highest ranking livestock and poultry products in terms of gross sales were milk and dairy products (59 percent), cattle and calves (18 percent), and hogs and pigs (11 percent). An estimated 59 percent of farm operators participated in Government programs, accounting for 15 percent of total payments. The typical farm operator was 52 years old and averaged working 43 hours per week on the farm. Two-thirds of farm operators considered farming their primary occupation. Over 90 percent reported nonfarm earnings. This represented 7 percent of all U.S. farm operator household off-farm income.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Michigan

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

The overall financial position of Michigan farms showed improvement during 1988. The percent of farms classified as favorable increased from 34 percent in 1987 to 44 percent in 1988, while the percent of farms with low debt remained constant at 84 percent. Both gross and net cash income fell in Michigan due to a drop in livestock sales of over \$10,000 per farm. Gross cash income averaged \$62,100 and net income averaged \$10,000. Both were below the region's average of \$77,500 and \$18,000, respectively. Net worth fell by \$5,000 and nonfarm income fell by \$1,700 per farm.

Other States in the region had higher farm incomes but lower nonfarm incomes. These other States also had a higher percent of farms in the high debt category. Compared with the United States, the Lake States region had a higher percent of farms classified as favorable but a lower percent with debt/asset ratios less than 0.40. The region's average gross and net farm incomes were above the U.S. average, as was average net worth per farm.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Michigan farm financial position

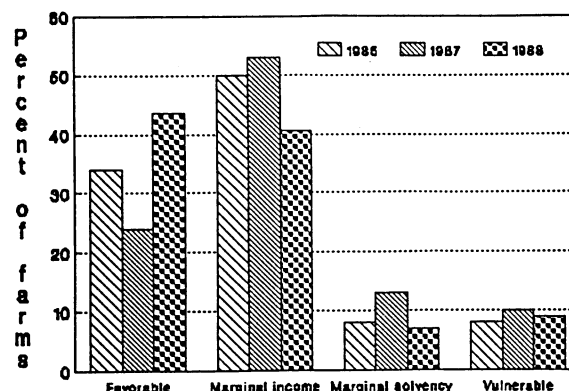


Table 1--Financial Performance of Lake States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Michigan	44	40	7	9
Minnesota	51	28	12	9
Wisconsin	54	24	13	9
Lake States	50	30	11	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	MI	MN	WI	Lake States	U.S.
	Acres per farm				
Acres operated 1/	240	340	290	290	470
	Dollars per farm				
Crop sales	27,000	28,700	14,800	22,900	26,200
+ Net CCC loans	-2,500	-4,900	-900	-2,800	-900
+ Livestock sales	29,200	39,900	64,700	47,000	38,100
+ Other farm income	8,400	13,900	8,100	10,400	9,000
= Gross cash farm income	62,100	77,600	86,700	77,500	72,400
- Total operating expenses	52,100	60,300	63,100	59,500	55,000
= Net cash farm income	10,000	17,300	23,600	18,000	17,400
Nonfarm income	25,700	19,600	18,900	20,800	28,900
Net worth	231,500	269,000	257,200	255,700	311,300
	Ratio				
Debt/asset	0.21	0.20	0.20	0.20	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Michigan farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	44	40	7	9	100
Economic class:					
Sales above \$250,000	56	7	30	7	100
Sales \$40,000-\$250,000	60	12	19	9	100
Sales below \$40,000	37	54	0	9	100
Type of farm:					
Cash grain	42	41	6	11	100
Other crops	52	36	4	8	100
Dairy	60	13	22	5	100
Other livestock and poultry	31	57	4	8	100
Operating:			Acres per farm		
Acres owned	200	90	230	130	150
Acres operated	280	130	530	280	240
Operator age	55	54	Years	44	52
Financial:			Dollars per farm		
Crop sales	34,600	9,200	76,300	30,000	27,000
+ Net CCC loans	-2,700	-700	-4,600	-8,000	-2,500
+ Livestock sales	39,000	6,100	114,800	14,900	29,200
+ Other farm income	10,500	2,500	26,100	10,500	8,400
= Gross cash farm income	81,400	17,100	212,600	47,400	62,100
- Cash operating expenses	58,000	24,000	164,500	58,400	52,100
= Net cash farm income	23,400	-6,900	48,100	-11,000	10,000
Nonfarm income	22,400	30,100	15,800	30,900	25,700
Total assets	362,500	196,000	493,200	228,200	293,400
Total debt	46,300	15,100	324,100	139,800	61,900
Ratios:			Ratio		
Debt/asset	0.13	0.08	0.66	0.61	0.21
Return on assets	.02	-.04	.02	-.03	0
Cash expenses/gross income	.71	1.40	.77	1.23	.84
Interest/gross income	.06	.09	.10	.23	.08

Michigan farms averaged 240 acres, the same as in 1987. An average 63 percent of these acres were owned by the farm operator. Farm size ranged from 130 acres for farms in the marginal income position to 530 acres in the marginal solvency position. The average age of the farm operator was 52 years with the favorable farms having the oldest operator (55 years) and the marginal solvency farms, the youngest (43 years).

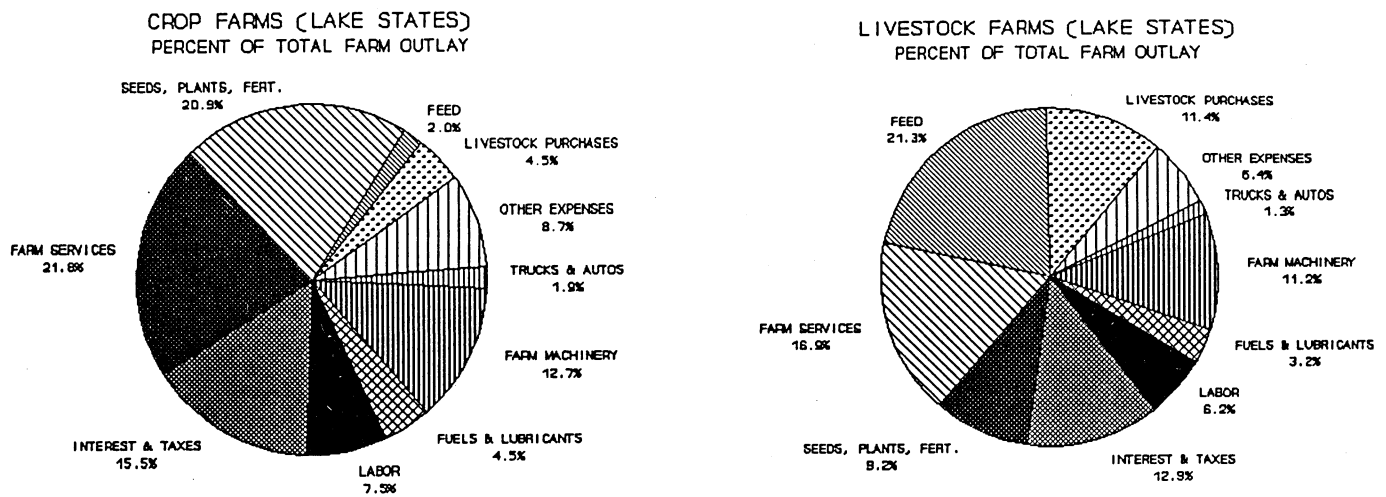
The middle sales class of \$40,000 to \$250,000 had the highest percent of farms in a favorable financial position, followed closely by the largest sales class. Many farms in both classes, however, were carrying high debt levels. The lowest percent of high-debt farms were found in the smallest sales class, the same as in 1987.

The type of farm had a major influence on financial position, particularly for the low-debt farms. About

an equal number of cash grain farms were favorable as were marginal income. For livestock operations other than dairy, there were about half as many favorable as marginal income. Some 60 percent of dairy farms were favorable (the highest percent of any type farm) and only 5 percent were vulnerable (the lowest percent).

Farms in the marginal solvency category (positive income and high debt) were nearly twice as large as farms in any other category. They also had quite high incomes. Gross cash income averaged \$212,600, nearly 2.5 times the level of the favorable farms. Even with cash expenses of \$164,500, the net farm income averaged \$48,100, the highest of any financial category. The interest expense of these high-debt farms was only 10 cents per dollar of gross income, nearly the same as for the low-debt, marginal-solvency farms.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Lake States totaled nearly \$13.1 billion in 1988, up 5 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Lower regional expenditures in farm services, interest, labor, building and fencing, farm and land improvements, seeds, trucks and autos were more than offset by increased in the remaining major expenses.

Expenditures by livestock farms at \$8.6 billion were 66 percent of the total regional expenses compared to 65 percent in 1987. Major expense items on livestock farms were feed (21 percent), farm services (17 percent), livestock and poultry, and farm machinery (both 11 percent). Crop farm expenditures total \$4.5 billion, 34 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services, farm machinery, fertilizer, and interest.

Table 4--Selected production expenditures by type of farm, 1988

Lake States (MI, MN AND WI)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	4,453,403	8,562,331	13,015,734	118,361,751
Livestock & poultry	200,085	976,652	1,176,737	13,607,228
Feed	88,421	1,826,837	1,915,258	17,914,533
Farm services	972,566	1,444,150	2,416,716	24,630,395
Ag. chemicals & sprays	252,170	172,154	424,324	3,858,857
Fertilizer	422,095	384,738	806,833	6,957,661
Interest	409,068	734,084	1,143,152	8,365,499
Taxes (property & real estate)	279,268	373,227	652,495	3,927,991
Labor	336,027	525,914	861,941	10,224,049
Fuels & lubricants	199,113	272,136	471,249	4,450,295
Farm supplies	77,715	233,919	311,634	2,249,336
Building & fencing	56,486	193,329	249,815	2,226,172
Farm & land improvements	35,759	51,426	87,185	943,058
Total farm machinery	565,211	958,480	1,523,691	11,501,269
Seeds	256,083	234,555	490,638	3,692,164
Trucks & autos	84,874	110,234	195,108	2,058,496
Other unallocated expenses	218,460	70,496	288,956	1,754,751



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The overall financial position of Michigan farms showed improvement during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Michigan Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Minnesota

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

The overall financial position of Minnesota farms improved during 1988. The percent of farms classified as favorable increased from 45 percent in 1987 to 50 percent in 1988, while the percent of farms with low debt increased from 73 percent to 79 percent. Both gross and net cash income increased in Minnesota due to a rise in both crop and livestock sales. Gross cash income averaged \$77,600 and net income averaged \$17,300. Both were near the region's average of \$77,500 and \$18,000, respectively. Net worth increased by over \$70,000 and nonfarm income rose by \$800 per farm.

Michigan had lower farm incomes, while Wisconsin had higher incomes. Michigan had a lower percentage of farms in the high debt category; Minnesota, higher. Compared with the United States, the Lake States region had a larger share of farms classified as favorable but a lower percent with debt/asset ratios less than 0.40. The region's average gross and net farm incomes were above the U.S. average, while average net worth per farm was less.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Minnesota farm financial position

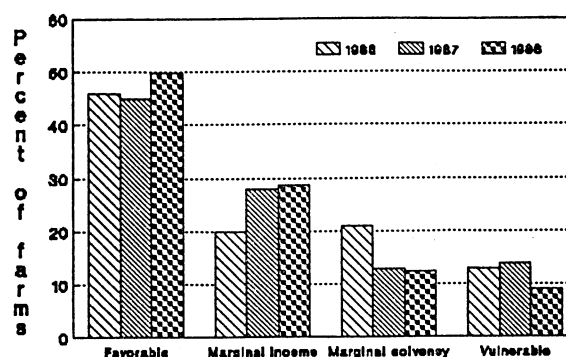


Table 1--Lake States financial performance, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Michigan	44	40	7	9
Minnesota	51	28	12	9
Wisconsin	54	24	13	9
Lake States	50	30	11	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	MI	MN	WI	Lake States	U.S.
<b>Acres per farm</b>					
Acres operated 1/	240	340	290	290	470
<b>Dollars per farm</b>					
Crop sales	27,000	28,700	14,800	22,900	26,200
+ Net CCC loans	-2,500	-4,900	-900	-2,800	-900
+ Livestock sales	29,200	39,900	64,700	47,000	38,100
+ Other farm income	8,400	13,900	8,100	10,400	9,000
= Gross cash farm income	62,100	77,600	86,700	77,500	72,400
- Total operating expenses	52,100	60,300	63,100	59,500	55,000
= Net cash farm income	10,000	17,300	23,600	18,000	17,400
Nonfarm income	25,700	19,600	18,900	20,800	28,900
Net worth	231,500	269,000	257,200	255,700	311,300
<b>Ratio</b>					
Debt/asset	0.21	0.20	0.20	0.20	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Minnesota farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	51	28	12	9	100
Economic class:					
Sales above \$250,000	50	17	21	12	100
Sales \$40,000-\$250,000	59	14	22	5	100
Sales below \$40,000	45	39	4	12	100
Type of farm:					
Cash grain	55	28	11	6	100
Other crops	42	32	12	14	100
Dairy	64	11	25	0	100
Other livestock and poultry	41	35	7	17	100
Operating:			Acres per farm		
Acres owned	220	220	300	170	230
Acres operated	310	310	500	330	340
Operator age	53	54	Years 43	46	52
Financial:			Dollars per farm		
Crop sales	33,200	11,300	53,900	22,300	28,700
+ Net CCC loans	-3,500	-6,200	-6,200	-7,400	-4,900
+ Livestock sales	37,900	25,300	72,200	52,000	39,900
+ Other farm income	13,600	6,700	27,100	19,700	13,900
= Gross cash farm income	81,200	37,100	147,000	86,600	77,600
- Cash operating expenses	49,900	48,300	99,100	102,400	60,300
= Net cash farm income	31,300	-11,200	47,900	-15,800	17,300
Nonfarm income	14,200	29,600	14,300	26,900	19,600
Total assets	376,700	261,600	368,700	284,800	335,600
Total debt	34,800	26,900	228,300	143,600	66,600
Ratios:			Ratio		
Debt/asset	0.09	0.10	0.62	0.50	0.20
Return on assets	.03	-.05	.08	-.02	.02
Cash expenses/gross income	.61	1.30	.67	1.18	.78
Interest/gross income	.04	.14	.12	.15	.09

Minnesota farms averaged 340 acres, 60 acres larger than in 1987. An average 68 percent of these acres were owned by the farm operator. Farm size ranged from 310 acres for farms in both the favorable and the marginal income positions to 500 acres in the marginal solvency position. The average age of the farm operator was 52 years with the marginal income farms having the oldest operator (54 years) and the marginal solvency farms, the youngest (43 years).

The middle sales class of \$40,000 to \$250,000 had the highest percent of farms in a favorable financial position, followed by the largest sales class. Many farms in both classes, however, were carrying high debt levels. The lowest percent of high-debt farms were found in the smallest sales class, the same as in 1987.

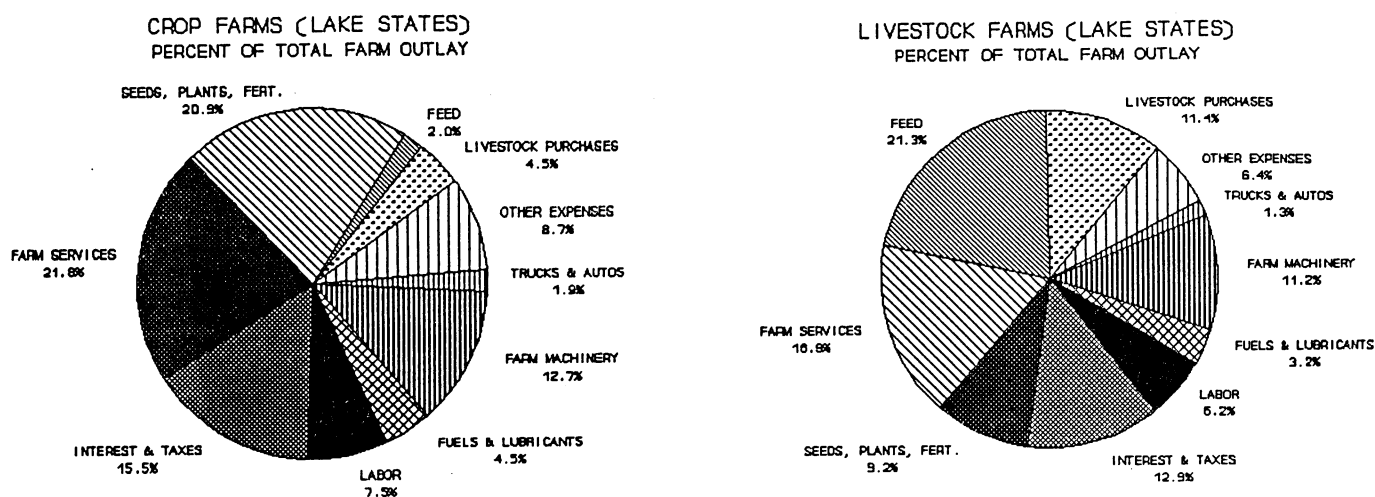
The type of farm had a major influence on financial position, particularly for the low-debt farms. About twice as many cash grain farms were favorable as

were marginal income. For livestock operations other than dairy, there were about as many favorable as marginal income. Some 64 percent of dairy farms were favorable (the highest percent of any type farm) and none were vulnerable.

Farms in the marginal solvency category (positive income and high debt) were the largest of any other category. They also had quite high incomes. Gross cash income averaged \$147,000, nearly twice the level of the favorable farms. Even with cash expenses of \$99,100, the net farm income averaged \$47,900, the highest of any financial category. The interest expense of these high-debt farms was only 12 cents per dollar of gross income, less than for the low-debt, marginal income farms.

Nonfarm income was highest for the marginal income group (\$29,600 per farm). Nonfarm income was least for the 310-acre favorable farms.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Lake States totaled nearly \$13.1 billion in 1988, up 5 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Lower regional expenditures in farm services, interest, labor, building and fencing, farm and land improvements, seeds, trucks and autos were more than offset by increased in the remaining major expenses.

Expenditures by livestock farms at \$8.6 billion were 66 percent of the total regional expenses compared to 65 percent in 1987. Major expense items on livestock farms were feed (21 percent), farm services (17 percent), livestock and poultry, and farm machinery (both 11 percent). Crop farm expenditures total \$4.5 billion, 34 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services, farm machinery, fertilizer, and interest.

Table 4--Selected production expenditures by type of farm, 1988

Lake States (MI, MN AND WI)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	4,453,403	8,562,331	13,015,734	118,361,751
Livestock & poultry	200,085	976,652	1,176,737	13,607,228
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Farm services	972,566	1,444,150	2,416,716	24,630,395
Ag. chemicals & sprays	252,170	172,154	424,324	3,858,857
Fertilizer	422,095	384,738	806,833	6,957,661
Interest	409,068	734,084	1,143,152	8,365,499
Taxes (property & real estate)	279,268	373,227	652,495	3,927,991
Labor	336,027	525,914	861,941	10,224,049
Fuels & lubricants	199,113	272,136	471,249	4,450,295
Farm supplies	77,715	233,919	311,634	2,249,336
Building & fencing	56,486	193,329	249,815	2,226,172
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Seeds	256,083	234,555	490,638	3,692,164
Trucks & autos	84,874	110,234	195,108	2,058,496
Other unallocated expenses	218,460	70,496	288,956	1,754,751

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### **In this report...**

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NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Wisconsin

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

There was a modest decline in the overall financial position of Wisconsin farms during 1988. The percent of farms classified as favorable decreased from 58 percent in 1987 to 54 percent in 1988, while the percent of farms with low debt remained the same at 78 percent. Both gross and net cash income rose in Wisconsin. Crop sales nearly doubled and livestock sales increased by \$8,900 per farm. Gross cash income averaged \$86,700 and net income averaged \$23,600, the highest in the region. Both were above the region's average of \$77,500 and \$18,000, respectively. Net worth rose by \$14,100 and nonfarm income rose by \$3,000 per farm.

Other States in the region had lower farm incomes but higher nonfarm incomes. These other States also had a lower percent of farms in the high debt category. Compared with the United States, the Lake States region had a higher percent of farms classified as favorable but a lower percent with debt/asset ratios less than 0.40. The region's average gross and net farm incomes were above the U.S. average, while average net worth per farm was less.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Figure 1--Wisconsin farm financial position

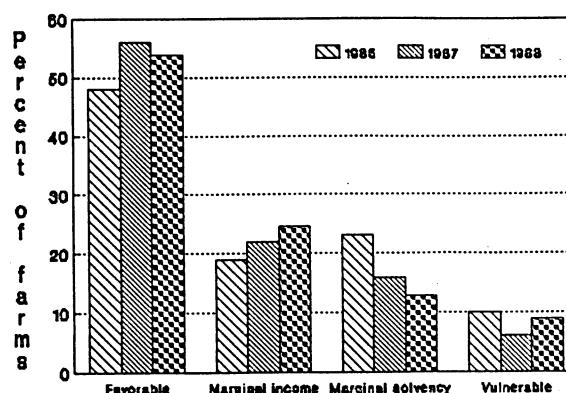


Table 1--Financial Performance of Lake States

	Percent of farms			
	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Michigan	44	40	7	9
Minnesota	51	28	12	9
Wisconsin	54	24	13	9
Lake States	50	30	11	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	MI	MN	WI	Lake States	U.S.
<b>Acres per farm</b>					
Acres operated 1/	240	340	290	290	470
<b>Dollars per farm</b>					
Crop sales	27,000	28,700	14,800	22,900	26,200
+ Net CCC loans	-2,500	-4,900	-900	-2,800	-900
+ Livestock sales	29,200	39,900	64,700	47,000	38,100
+ Other farm income	8,400	13,900	8,100	10,400	9,000
= Gross cash farm income	62,100	77,600	86,700	77,500	72,400
- Total operating expenses	52,100	60,300	63,100	59,500	55,000
= Net cash farm income	10,000	17,300	23,600	18,000	17,400
Nonfarm income	25,700	19,600	18,900	20,800	28,900
Net worth	231,500	269,000	257,200	255,700	311,300
<b>Ratio</b>					
Debt/asset	0.21	0.20	0.20	0.20	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.



Table 2--Average operating and financial characteristics for Wisconsin farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	54	24	13	9	100
Economic class:					
Sales above \$250,000	73	13	d	d	100
Sales \$40,000-\$250,000	62	9	23	6	100
Sales below \$40,000	42	43	d	d	100
Type of farm:					
Cash grain	43	39	10	8	100
Other crops	52	30	d	d	100
Dairy	66	9	20	5	100
Other livestock and poultry	32	52	2	14	100
Operating:			Acres per farm		
Acres owned	210	120	400	120	200
Acres operated	290	170	620	150	290
			Years		
Operator age	53	53	44	44	51
Financial:			Dollars per farm		
Crop sales	23,800	3,800	5,800	2,900	14,800
+ Net CCC loans	-700	-2,600	1,700	-1,600	-900
+ Livestock sales	73,200	31,500	118,300	28,700	64,700
+ Other farm income	8,700	4,900	14,600	4,100	8,100
= Gross cash farm income	105,000	37,600	140,400	34,100	86,700
- Cash operating expenses	62,600	46,500	109,800	45,000	63,100
= Net cash farm income	42,400	-8,900	30,600	-10,900	23,600
Nonfarm income	18,100	24,400	8,700	23,200	18,900
Total assets	372,700	226,900	384,900	168,500	320,500
Total debt	31,100	33,000	227,400	106,100	63,300
Ratios:			Ratio		
Debt/asset	0.08	0.15	0.59	0.63	0.20
Return on assets	.05	-.06	.05	-.07	.02
Cash expenses/gross income	.61	1.25	.78	1.33	.74
Interest/gross income	.03	.13	.14	.26	.07

d = Data insufficient for disclosure.

Wisconsin farms averaged 290 acres, 60 acres larger than in 1987. An average 69 percent of these acres were owned by the farm operator. Farm size ranged from 150 acres for farms in the vulnerable position to 620 acres in the marginal solvency position. The average age of the farm operator was 51 years with the favorable and marginal income farms having the oldest operators (53 years) and the other farms, the youngest (44 years).

The largest sales class of \$250,000 and above had the highest percent of farms in a favorable financial position, followed closely by the middle sales class. Many farms in the middle class, however, were carrying high debt levels. The lowest percent of high-debt farms were found in the largest sales class, although the smallest class was nearly the same.

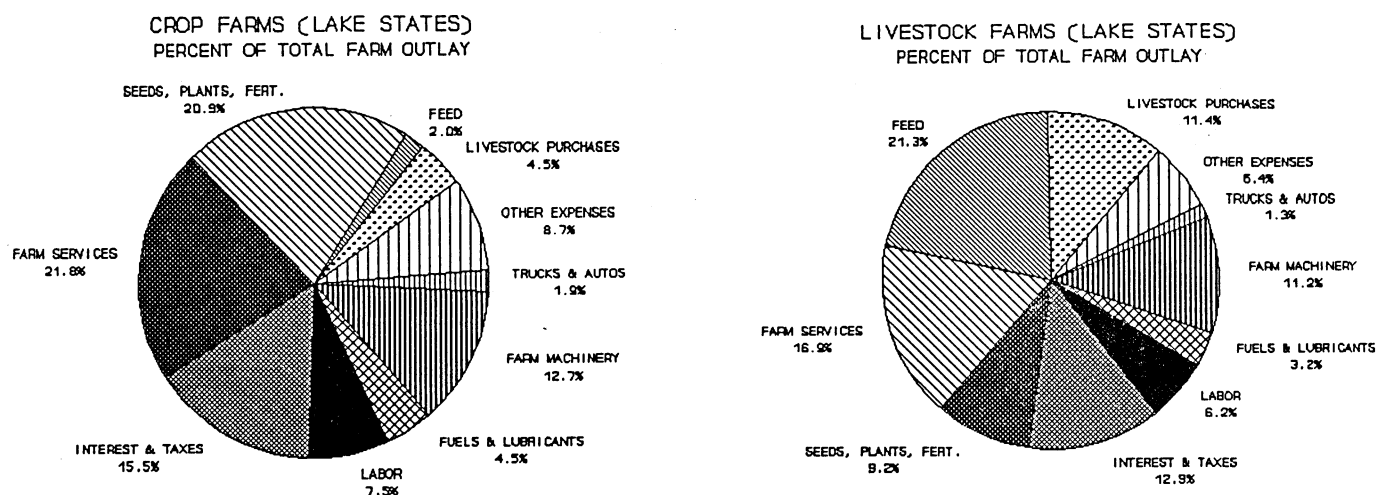
About an equal number of cash grain farms were favorable as were marginal income. For livestock operations other than dairy, there were about half

as many favorable as marginal income. Some 66 percent of dairy farms were favorable (the highest percent of any type farm) and only 5 percent were vulnerable (the lowest percent).

Farms in the marginal solvency category (positive income and high debt) were over twice as large as farms in any other category. The favorable farms, however, had higher net cash farm incomes. These favorable farms had gross cash income averaging \$105,000, below the level of the marginal solvency farms, but net income of \$42,400, nearly \$12,000 more than the marginal solvency farms.

The amount of negative income improved slightly from the negative incomes of 1987. The marginal income category increased by \$200 and the vulnerable category improved by \$1,600. Nonfarm income was highest for the marginal income group (\$24,400 per farm). Nonfarm income was least for the largest farms, those in a marginal solvency position.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Lake States totaled nearly \$13.1 billion in 1988, up 5 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Lower regional expenditures in farm services, interest, labor, building and fencing, farm and land improvements, seeds, trucks and autos were more than offset by increased in the remaining major expenses.

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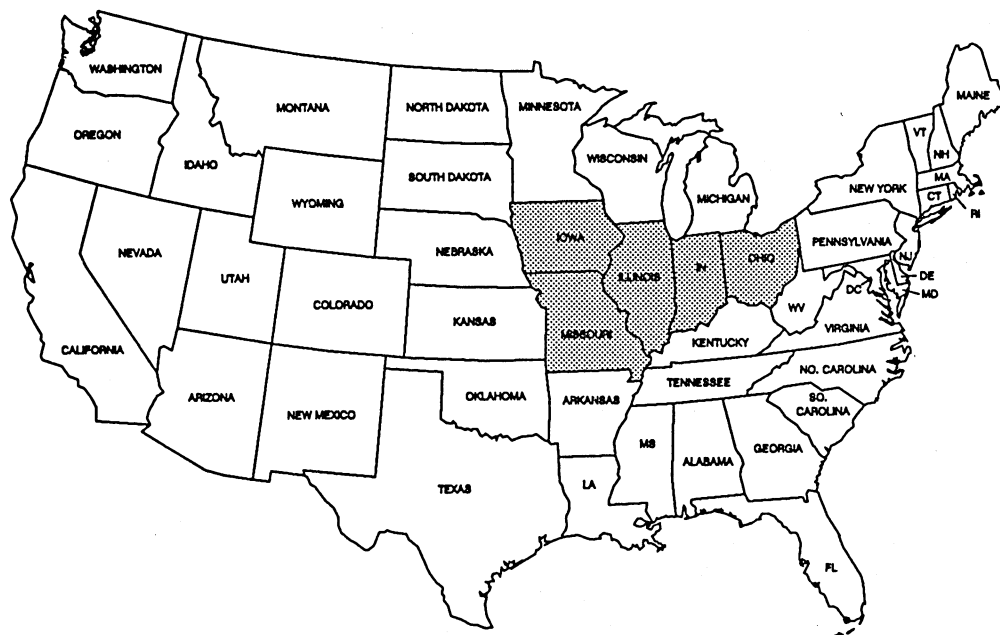
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## CORN BELT



The Corn Belt had 332,000 farm operators in 1988, which represented 19 percent of all U.S. farmers, making it the most heavily populated farm region. The distribution of farm types was equally divided between crop and livestock enterprises. Ninety percent of crop farms specialized in the production of cash grains, while beef, hog, and sheep producers accounted for a similar share of all livestock production specialties. The most common farm sizes, in term of gross sales, were the less than \$10,000 category (31 percent), and the \$40,000-\$100,000 group (20 percent). Ninety-two percent of farms were organized as individual operations, 5 percent as partnerships, and the remaining 3 percent as cooperatives or corporations. Sixty percent of farms operated less than 250 acres, while only 5 percent farmed at least 1,000 acres. Half of all farm operators owned all the land they operated in 1988. Full tenants represented 12 percent of all farms and the remaining 38 percent were partial owners of land operated.

Two-thirds of total land operated in the Corn Belt was devoted to crops, 15 percent to pasture, 10 percent was idle under government programs, and the remainder went for summer fallow, woodland, or some other use. Farm operators in the Corn Belt accounted for 20 percent of both total U.S. livestock sales and crop sales. Corn and soybeans accounted for over 80 percent of total crop sales in the Corn Belt. The highest ranking livestock and poultry products in terms of gross sales were hogs (40 percent) and cattle (36 percent). Fifty-six percent of farm operators participated in Government programs, accounting for 31 percent of total U.S. payments. The typical farm operator was 52 years old and averaged working 35 hours per week on the farm. Over 60 percent consider farming to be their primary occupation. More than 90 percent reported nonfarm earnings which represented 16 percent of all U.S. farm operator household off-farm income.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Indiana

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Financial conditions deteriorated for many Indiana farms during 1988. The number of farms considered in a favorable financial position fell by 10 percentage points giving Indiana the lowest share in this category among all Corn Belt States. The proportion of vulnerable farms increased from 3 percent in 1987 to 8 percent which was the largest increase in the region. The 1988 drought was probably the main contributor to these changing conditions.

Gross cash income averaged \$9,500 below the region's average, while net cash income was \$4,200 lower. Both income measures were well below their 1987 levels. The share of farms with positive net cash farm income decreased by 10 percentage points. Average nonfarm income in Indiana was 3 times the net cash earnings from farming, a trend throughout most of the region. Negative impacts were also reflected in the solvency position of Indiana farms. The average debt/asset ratio increased from 0.15 to 0.18, while average net worth declined by \$25,500. In addition, the proportion of farms with high debt increased by 5 percentage points since 1987.

Figure 1--Indiana farm financial position

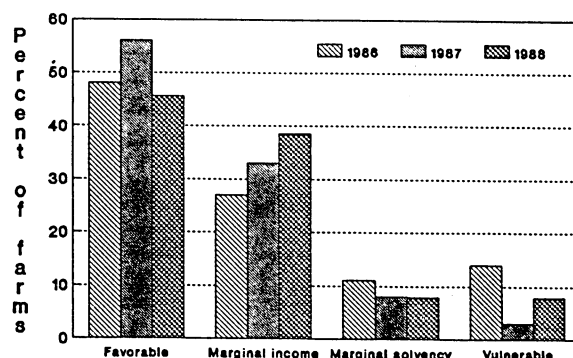


Table 1--Financial performance of Corn Belt States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Illinois	55	30	6	9
Indiana	46	38	8	8
Iowa	58	24	11	7
Missouri	56	32	7	5
Ohio	47	41	5	7
Corn Belt	53	32	8	7
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Table 2--Selected average operating and financial characteristics, 1988

	IL	IN	IA	MO	OH	Corn Belt	U.S.
Acres per farm							
Acres operated 1/	370	270	310	310	250	310	470
Dollars per farm							
Crop sales	36,000	27,400	28,700	12,200	29,200	26,000	26,200
+ Net CCC loans	-5,400	-1,700	-5,900	-800	-1,000	-3,200	-900
+ Livestock sales	31,900	23,500	59,400	23,100	23,300	34,400	38,100
+ Other farm income	16,000	10,100	17,800	5,200	7,900	11,800	9,000
= Gross cash farm income	78,400	59,300	100,000	39,700	59,400	68,900	72,400
- Total operating expenses	65,300	50,100	79,100	30,700	47,100	55,500	55,000
= Net cash farm income	13,100	9,200	20,900	9,000	12,300	13,400	17,400
Nonfarm income	33,000	29,600	17,300	17,500	30,900	24,300	28,900
Net worth	303,800	269,700	259,600	192,400	278,800	256,100	311,300
Ratio							
Debt/asset	0.16	0.18	0.21	0.14	0.15	0.17	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Indiana farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	46	38	8	8	100
Economic class:					
Sales above \$250,000	63	9	24	4	100
Sales \$40,000-\$250,000	57	22	17	4	100
Sales below \$40,000	37	51	d	d	100
Type of farm:					
Cash grain	44	37	9	10	100
Other crops	47	27	d	d	100
Beef, hogs, and sheep	46	45	5	4	100
Other livestock and poultry	59	d	21	d	100
Operating:			Acres per farm		
Acres owned	170	110	130	90	140
Acres operated	310	190	460	220	270
Operator age	55	53	Years	39	52
Financial:			Dollars per farm		
Crop sales	39,400	11,800	45,600	16,600	27,400
+ Net CCC loans	-1,600	-900	-3,800	-3,900	-1,700
+ Livestock sales	29,000	9,600	71,400	12,100	23,500
+ Other farm income	13,400	5,300	15,600	8,600	10,100
= Gross cash farm income	80,200	25,800	128,800	33,400	59,300
- Cash operating expenses	55,100	34,200	101,800	47,300	50,100
= Net cash farm income	25,100	-8,400	27,000	-13,900	9,200
Nonfarm income	20,700	38,900	22,700	43,100	29,600
Total assets	417,300	258,100	298,300	194,000	328,700
Total debt	41,100	40,300	193,800	118,600	59,000
Ratios:			Ratio		
Debt/asset	0.10	0.16	0.65	0.61	0.18
Return on assets	0.03	-0.03	0.05	-0.06	0.01
Cash expenses/gross income	0.69	1.33	0.79	1.42	0.84
Interest/gross income	0.06	0.18	0.13	0.33	0.10

d = Data insufficient for disclosure.

Indiana farms averaged 270 acres, 40 acres less than in 1987. An average 52 percent of the acres were owned, up from 45 percent the previous year.

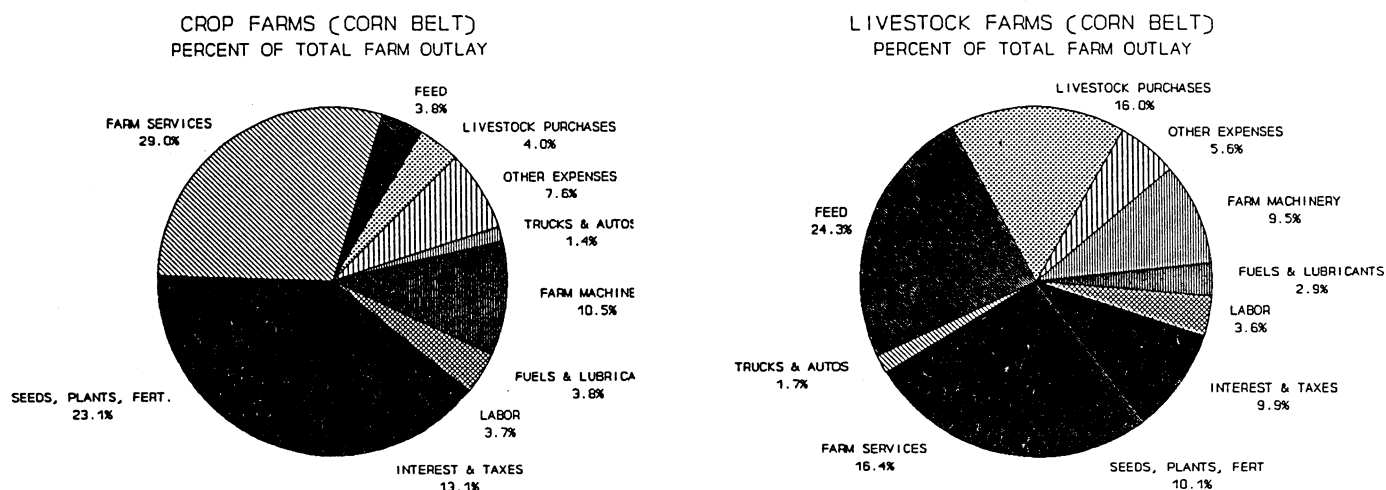
Indiana farms specializing in beef, hogs, and sheep were generally in a better financial position (favorable or marginal income) than those with crops or other livestock. However, the "other livestock" farms had the highest percentage of farms classified as favorable. The highest debt farms tended to be those specializing in crops other than cash grains.

More farms in the largest economic class (sales over \$250,000) had positive incomes than any other class. This class also tended to have higher debt, but this is expected. The smallest economic class had the least number of farms with high debt.

The marginal solvency farms had the highest sales for both crops and livestock, and were also the largest farms with an average 460 acres. They also had the highest debt/asset ratio (0.65), compared to 0.10 for the favorable farms and 0.18 for all farms.

Indiana's net cash farm income ranged from -\$13,900 for the negative income high debt farms to \$27,000 for the positive income high debt farms. The State average was \$9,200. Nonfarm income ranged from \$20,700 for the positive income low debt farms to \$43,100 for the negative income high debt farms, with a State average of \$29,600.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Corn Belt totaled \$24.9 billion in 1988, down 3.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased outlays for feed, livestock and poultry, fertilizer, agricultural chemicals, taxes, farm supplies, farm and land improvements, and trucks and autos

were offset by increases in all other major regional expense items. Expenditures for crop farms at \$12.7 billion were 51 percent of the total regional expenses, compared to 58 percent in 1987. Major expense items were farm services (29 percent), and fertilizer and farm machinery (both 11 percent). Over two-thirds of the livestock farm expenses were for feed (24 percent), farm services and livestock and poultry (both 16 percent), and farm machinery.

Table 4--Selected production expenditures by type of farm, 1988

Corn Belt (IL, IN, IA, MO, AND OH)	Crop farms	Livestock farms	All farms	
			Region	U.S.
1,000 Dollars				
Total farm production expenditures	12,700,089	12,246,089	24,946,178	118,361,751
Livestock & poultry	504,016	1,959,230	2,463,246	13,607,228
Feed	484,708	2,969,807	3,454,515	17,914,533
Farm services	3,681,182	2,005,684	5,686,866	24,630,395
Ag. chemicals & sprays	787,578	304,483	1,092,061	3,858,857
Fertilizer	1,454,352	655,036	2,109,388	6,957,661
Interest	1,049,590	845,785	1,895,375	8,365,499
Taxes (property & real estate)	615,357	368,591	983,948	3,927,991
Labor	463,663	441,600	905,263	10,224,049
Fuels & lubricants	486,532	358,889	845,421	4,450,295
Farm supplies	126,149	166,516	292,665	2,249,336
Building & fencing	134,173	261,053	395,226	2,226,172
Farm & land improvements	70,847	77,935	148,782	943,058
Total farm machinery	1,336,382	1,169,000	2,505,382	11,501,269
Seeds	698,958	282,815	981,773	3,692,164
Trucks & autos	173,616	203,872	377,488	2,058,496
Other unallocated expenses	632,986	175,790	808,776	1,754,751



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### **In this report...**

Financial conditions deteriorated for many Indiana farms during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Indiana Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Illinois

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Illinois farm operators experienced a moderate deterioration in the overall financial condition during 1988. Some 85 percent of Illinois farms were in a low-debt position, about equal to 1987, but up 10 points from 1986. However, the combined effects of the 1988 drought and higher expenses shifted many farms into a less favorable position. On average, gross cash income fell \$7,700 between 1988 and 1987 and expenses rose \$3,600 causing net cash income to fall \$11,300. The U.S. average net income rose \$500, further reflecting the drought's effect on Illinois' farmers.

On the positive side, nonfarm income increased \$7,000 and the strengthened land market pushed net worth up nearly \$30,000 per farm, easing the farm family's total income situation and dramatically improving the farm's balance sheet. Illinois' net cash income was second highest in the Corn Belt, while its nonfarm income and net worth were the region's highest. The average debt/asset ratio fell from 0.18 in 1987 to 0.16 which was one of the lowest values in the region.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Illinois farm financial position

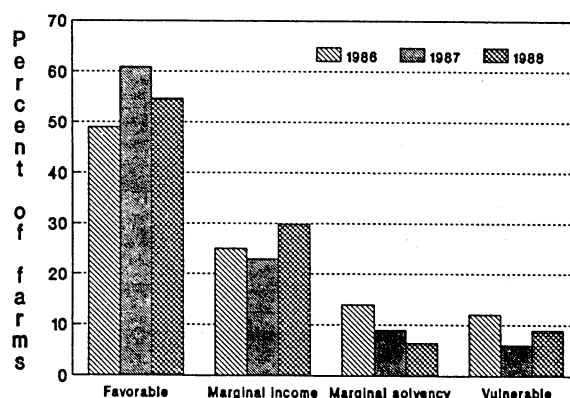


Table 1--Financial performance of Corn Belt States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Illinois	55	30	6	9
Indiana	46	38	8	8
Iowa	58	24	11	7
Missouri	56	32	7	5
Ohio	47	41	5	7
Corn Belt	53	32	8	7
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	IL	IN	IA	MO	OH	Corn Belt	U.S.
Acres per farm							
Acres operated 1/	370	270	310	310	250	310	470
Dollars per farm							
Crop sales	36,000	27,400	28,700	12,200	29,200	26,000	26,200
+ Net CCC loans	-5,400	-1,700	-5,900	-800	-1,000	-3,200	-900
+ Livestock sales	31,900	23,500	59,400	23,100	23,300	34,400	38,100
+ Other farm income	16,000	10,100	17,800	5,200	7,900	11,800	9,000
= Gross cash farm income	78,400	59,300	100,000	39,700	59,400	68,900	72,400
- Total operating expenses	65,300	50,100	79,100	30,700	47,100	55,500	55,000
= Net cash farm income	13,100	9,200	20,900	9,000	12,300	13,400	17,400
Nonfarm income	33,000	29,600	17,300	17,500	30,900	24,300	28,900
Net worth	303,800	269,700	259,600	192,400	278,800	256,100	311,300
Ratio							
Debt/asset	0.16	0.18	0.21	0.14	0.15	0.17	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Illinois farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	55	30	6	9	100
Economic class:					
Sales above \$250,000	66	11	12	11	100
Sales \$40,000-\$250,000	64	18	11	7	100
Sales below \$40,000	45	43	2	10	100
Type of farm:					
Cash grain	59	24	7	10	100
Other crops	33	62	d	d	100
Beef, hogs, and sheep	52	34	6	8	100
Other livestock and poultry	57	25	7	11	100
Operating:			Acres per farm		
Acres owned	170	110	70	130	140
Acres operated	410	240	520	400	370
			Years		
Operator age	53	51	41	42	51
Financial:			Dollars per farm		
Crop sales	43,300	15,400	61,200	40,200	36,000
+ Net CCC loans	-4,200	-5,100	-5,300	-13,500	-5,400
+ Livestock sales	38,700	15,600	52,000	29,200	31,900
+ Other farm income	17,900	8,100	28,900	20,600	16,000
= Gross cash farm income	95,700	34,000	136,800	76,500	78,400
- Cash operating expenses	65,000	46,500	100,600	102,900	65,300
= Net cash farm income	30,700	-12,500	36,300	-26,300	13,100
Nonfarm income	24,900	55,600	12,800	22,700	33,000
Total assets	415,900	305,100	280,500	276,100	361,800
Total debt	35,500	36,600	154,700	196,400	58,000
Ratios:			Ratio		
Debt/asset	0.09	0.12	0.55	0.71	0.16
Return on assets	.03	-.05	.11	-.08	.01
Cash expenses/gross income	.68	1.37	.74	1.35	.83
Interest/gross income	.04	.15	.10	.27	.08

d = Data insufficient for disclosure,

Illinois farms averaged 370 acres, 10 acres larger than in 1987. Of these, 38 percent were owned by the operator. Farms in the marginal solvency position showed dramatically different ownership than a year earlier. In 1988, only 13 percent of these farm's acres were owned, down from 33 percent in 1987. Farmers in this category were also the youngest, implying that less experienced operators are renting most of their farmland.

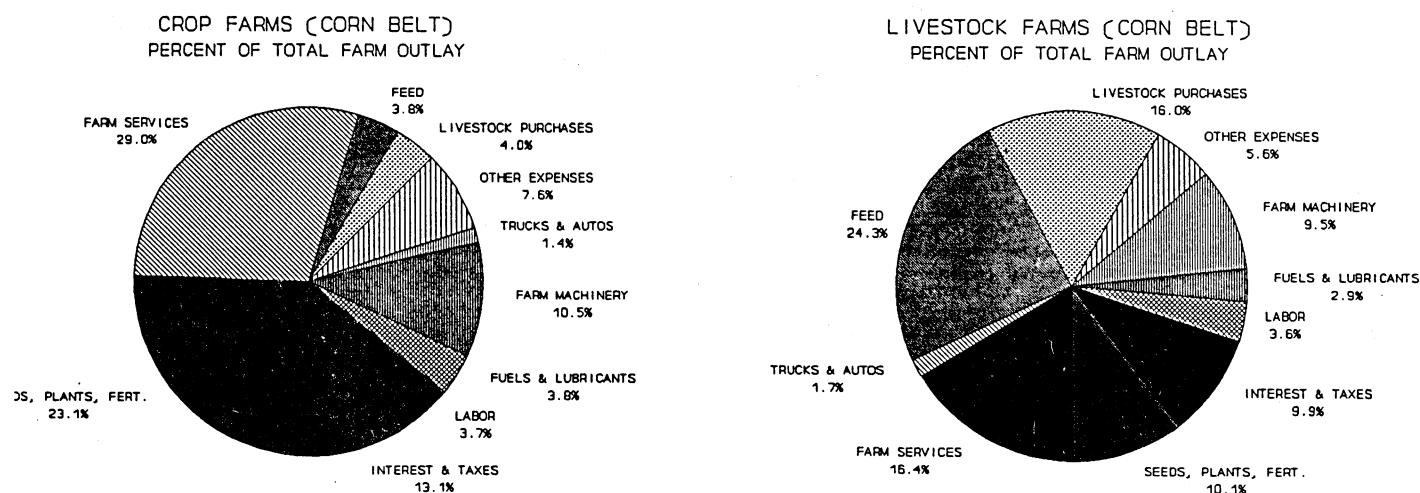
The marginally solvent farms had the highest net cash income and the highest return on assets, so less experienced is not necessarily less able. Having the largest farms, this group had gross incomes nearly 43 percent higher than the favorable farms. Net income was nearly 3 times the State average and the cash expenses/gross income ratio was second lowest, pointing out that high debt can be managed and provide a respectable income to the farm.

Illinois farms in the two largest sales classes (considered commercial farms) were more likely to be in a favorable financial position than the smaller, non-commercial farms. However, when only debt level is considered, farms in the smallest sales class were more likely to have low debt than were other farms.

Cash grain farms and livestock farms tended to have twice as many farms classified favorable than any other classification. The "other crops" farms, however, had twice as many considered marginal income as favorable.

The favorable farms had net cash farm incomes averaging \$30,700 per farm, 2.4 times the State average. Nonfarm incomes averaged \$24,900, and when added to farm income, they provided the highest total income of any category and nearly \$10,000 above the State average.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Corn Belt totaled \$24.9 billion in 1988, down 3.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased outlays for feed, livestock and poultry, fertilizer, agricultural chemicals, taxes, farm supplies, farm and land improvements, and trucks and autos

were offset by increases in all other major regional expense items. Expenditures for crop farms at \$12.7 billion were 51 percent of the total regional expenses, compared to 58 percent in 1987. Major expense items were farm services (29 percent), and fertilizer and farm machinery (both 11 percent). Over two-thirds of the livestock farm expenses were for feed (24 percent), farm services and livestock and poultry (both 16 percent), and farm machinery.

Table 4--Selected production expenditures by type of farm, 1988

Corn Belt (IL, IN, IA, MO, AND OH)	Crop farms	Livestock farms	All farms	
			Region	U.S.
			1,000 Dollars	
Total farm production expenditures	12,700,089	12,246,089	24,946,178	118,361,751
Livestock & poultry	504,016	1,959,230	2,463,246	13,607,228
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Farm services	3,681,182	2,005,684	5,686,866	24,630,395
Ag. chemicals & sprays	787,578	304,483	1,092,061	3,858,857
Fertilizer	1,454,352	655,036	2,109,388	6,957,661
Interest	1,049,590	845,785	1,895,375	8,365,499
Taxes (property & real estate)	615,357	368,591	983,948	3,927,991
Labor	463,663	441,600	905,263	10,224,049
Fuels & lubricants	486,532	358,889	845,421	4,450,295
Farm supplies	126,149	166,516	292,665	2,249,336
Building & fencing	134,173	261,053	395,226	2,226,172
Farm & land improvements	70,847	77,935	148,782	943,058
Total farm machinery	1,336,382	1,169,000	2,505,382	11,501,269
Seeds	698,958	282,815	981,773	3,692,164
Trucks & autos	173,616	203,872	377,488	2,058,496
Other unallocated expenses	632,986	175,790	808,776	1,754,751

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### **In this report...**

Illinois farm operators experienced a modest decline in overall financial conditions during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Illinois Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Iowa

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

The overall financial position of Iowa farms showed improvement during 1988. The percent of Iowa farms in the low debt categories increased from 71 in 1987 to 82 in 1988. There was a shift, however, in the proportion of farms with positive net incomes (favorable and marginal solvency), going down from 81 percent in 1987 to 70 in 1988.

Iowa farms had the highest average gross cash farm income of any State in the Corn Belt. Net income was also highest at \$20,900. Nonfarm income contributed a smaller amount to Iowa farmers' total household income than for other States in the region and was only 60 percent of the U.S. average.

Average net worth increased 10 percent from 1987 to \$259,600. The debt/asset ratio fell from 0.27 to 0.21, while the share of farms with high debt dropped by 10 percentage points. Despite these improvements in the balance sheet of Iowa farms, they continued to have the highest debt/asset ratio and largest share of farms with debt/asset ratios above 0.40 in the region.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Iowa farm financial position

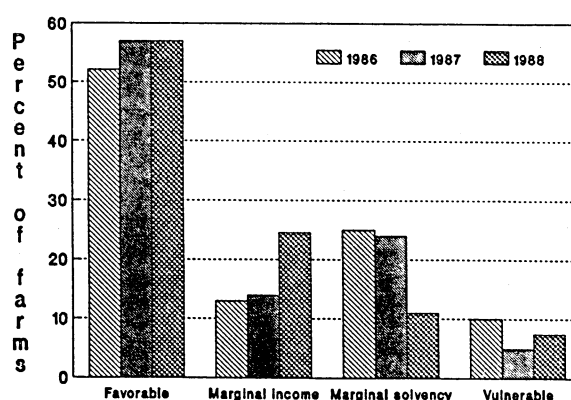


Table 1--Financial performance of Corn Belt States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Illinois	55	30	6	9
Indiana	46	38	8	8
Iowa	58	24	11	7
Missouri	56	32	7	5
Ohio	47	41	5	7
Corn Belt	53	32	8	7
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	IL	IN	IA	MO	OH	Corn Belt	U.S.
Acres per farm							
Acres operated 1/	370	270	310	310	250	310	470
Dollars per farm							
Crop sales	36,000	27,400	28,700	12,200	29,200	26,000	26,200
+ Net CCC loans	-5,400	-1,700	-5,900	-800	-1,000	-3,200	-900
+ Livestock sales	31,900	23,500	59,400	23,100	23,300	34,400	38,100
+ Other farm income	16,000	10,100	17,800	5,200	7,900	11,800	9,000
= Gross cash farm income	78,400	59,300	100,000	39,600	59,400	68,900	72,400
- Total operating expenses	65,300	50,100	79,100	30,700	47,100	55,500	55,000
= Net cash farm income	13,100	9,200	20,900	9,000	12,300	13,400	17,400
Nonfarm income	33,000	29,600	17,300	17,500	30,900	24,300	28,900
Net worth	303,800	269,700	259,600	192,400	278,800	256,100	311,300
Ratio							
Debt/asset	0.16	0.18	0.21	0.14	0.15	0.17	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics for Iowa farms by income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	58	24	11	7	100
Economic class:					
Sales above \$250,000	53	17	24	6	100
Sales \$40,000-\$250,000	71	10	12	7	100
Sales below \$40,000	45	40	9	6	100
Type of farm:					
Cash grain	65	20	10	5	100
Other crops	d	67	0	d	100
Beef, hogs, and sheep	55	25	13	7	100
Other livestock and poultry	51	25	d	d	100
			<u>Acres per farm</u>		
Operating:					
Acres owned	170	100	220	110	150
Acres operated	330	180	420	330	310
			<u>Years</u>		
Operator age	51	51	44	45	50
			<u>Dollars per farm</u>		
Financial:					
Crop sales	33,300	13,400	42,600	18,300	28,700
+ Net CCC loans	-4,200	-7,400	-8,000	-11,500	-5,900
+ Livestock sales	62,100	33,300	100,900	52,900	59,400
+ Other farm income	18,100	9,900	28,700	24,500	17,800
= Gross cash farm income	109,300	49,200	164,200	84,200	100,000
- Cash operating expenses	72,600	60,000	130,100	112,400	79,100
= Net cash farm income	36,700	-10,800	34,100	-28,200	20,900
Nonfarm income	15,100	23,600	13,200	21,300	17,300
Total assets	366,800	239,300	351,100	261,500	328,000
Total debt	42,200	33,900	206,700	171,400	68,400
			<u>Ratio</u>		
Ratios:					
Debt/asset	0.11	0.14	0.59	0.66	0.21
Return on assets	.06	-.04	.08	-.10	.03
Cash expenses/gross income	.66	1.24	.79	1.33	.79
Interest/gross income	.04	.11	.11	.20	.07

d = Data insufficient for disclosure

Iowa's farms averaged 310 acres, a decrease of 30 acres from last year. This equalled the regional average and only Illinois had larger farms. An average of 48 percent of the acres were owned by the operator. Iowa farmers were the youngest in the region, averaging 50 years.

The middle economic class (sales of \$40,000 to \$250,000) had a much higher percentage of favorable farms (71 percent) than the other two classes, and 83 percent of farms in this class had positive incomes. Only Missouri had a higher percentage. Farms in the largest economic class were more likely to have high debt than were other farms.

Cash grains and hogs were the major commodities in the State and had higher percentages of farms in the favorable position. Over 80 percent of farms specializing in crops other than cash grains showed negative incomes.

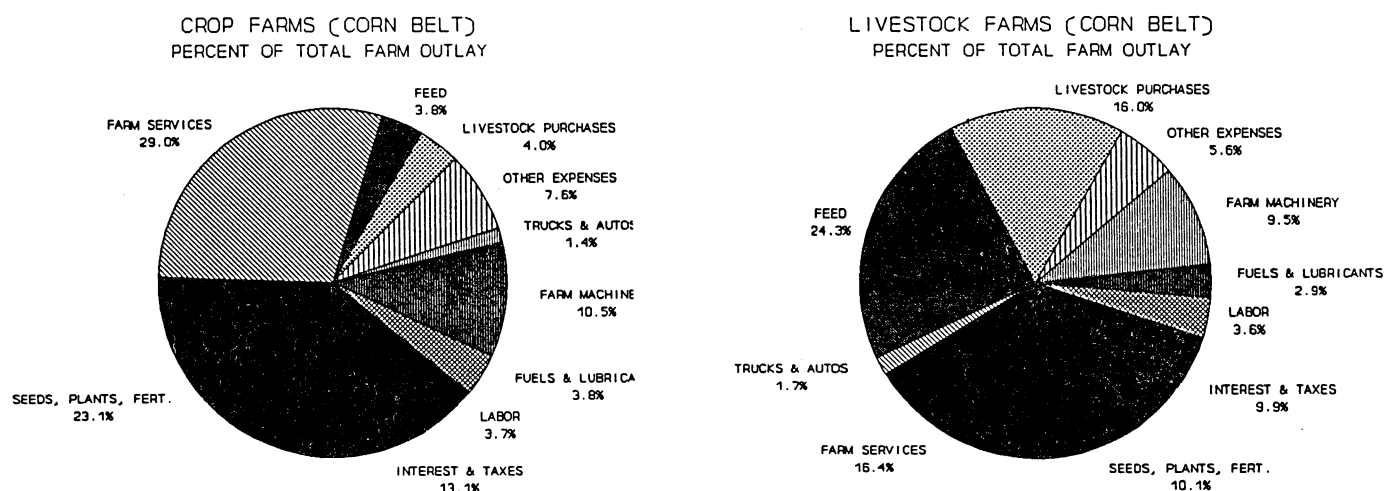
Marginally solvent farms had the highest sales, both for crops and livestock, and also averaged the largest in acreage. Cash operating expenses for this group were also the largest, so much so that net income was not as high as for the favorable group.

Net cash income ranged from -\$28,200 to \$36,700. The overall State average net cash income was \$20,900 in 1988, down from \$38,600 in 1987. This difference is due to a \$7,800 drop in gross income and a \$10,000 increase in cash expenses.

The value of the average farm's assets grew \$4,000 while debt fell by over \$20,000. The 1988 debt/asset ratio ranged from 0.11 for the favorable group to 0.66 for the vulnerable group, with a State average of 0.21. The highest return on assets was for the marginal solvency group, where each dollar of assets returned 8 cents.



Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Corn Belt totaled \$24.9 billion in 1988, down 3.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased outlays for feed, livestock and poultry, fertilizer, agricultural chemicals, taxes, farm supplies, farm and land improvements, and trucks and autos

were offset by increases in all other major regional expense items. Expenditures for crop farms at \$12.7 billion were 51 percent of the total regional expenses, compared to 58 percent in 1987. Major expense items were farm services (29 percent), and fertilizer and farm machinery (both 11 percent). Over two-thirds of the livestock farm expenses were for feed (24 percent), farm services and livestock and poultry (both 16 percent), and farm machinery.

Table 4--Selected production expenditures by type of farm, 1988

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			Region	U.S.
1,000 Dollars				
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Farm services	3,681,182	2,005,684	5,686,866	24,630,395
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Fertilizer	1,454,352	655,036	2,109,388	6,957,661
Interest	1,049,590	845,785	1,895,375	8,365,499
Taxes (property & real estate)	615,357	368,591	983,948	3,927,991
Labor	463,663	441,600	905,263	10,224,049
Fuels & lubricants	486,532	358,889	845,421	4,450,295
Farm supplies	126,149	166,516	292,665	2,249,336
Building & fencing	134,173	261,053	395,226	2,226,172
Farm & land improvements	70,847	77,935	148,782	943,058
Total farm machinery	1,336,382	1,169,000	2,505,382	11,501,269
Seeds	698,958	282,815	981,773	3,692,164
Trucks & autos	173,616	203,872	377,488	2,058,496
Other unallocated expenses	632,986	175,790	808,776	1,754,751

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### **In this report...**

The overall financial position of Iowa farms showed improvement during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Iowa Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Missouri

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, financial conditions of Missouri farms and ranches remained stable during 1988. The percent of Missouri farms in the low debt categories increased from 85 in 1987 to 88 in 1988. The percent of farms with positive farm incomes (favorable and marginal solvency), however, was 63 in both 1987 and 1988.

Missouri farms had the lowest average gross cash farm income of any State in the Corn Belt. Net income was also lowest at \$9,000. Both were due largely to low crop sales, averaging only \$12,200 per farm. This was less than half the sales in the other Corn Belt States.

Nonfarm income contributed a smaller dollar amount to Missouri farmers' total household income than it did in most other States in the region and was only 60 percent of the U.S. average. The average farm's net worth fell 13 percent from 1987, the only Corn Belt State to see a decline. The debt/asset ratio remained the same at 0.14.

Figure 1--Missouri farm financial position

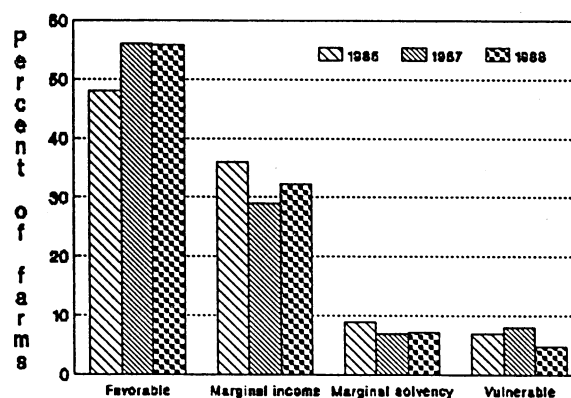


Table 1--Financial performance of Corn Belt States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Illinois	55	30	6	9
Indiana	46	38	8	8
Iowa	58	24	11	7
Missouri	56	32	7	5
Ohio	47	41	5	7
Corn Belt	53	32	8	7
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Table 2--Selected average operating and financial characteristics, 1988

	IL	IN	IA	MO	OH	Corn Belt	U.S.
Acres per farm							
Acres operated 1/	370	270	310	310	250	310	470
Dollars per farm							
Crop sales	36,000	27,400	28,700	12,200	29,200	26,000	26,200
+ Net CCC loans	-5,400	-1,700	-5,900	-800	-1,000	-3,200	-900
+ Livestock sales	31,900	23,500	59,400	23,100	23,300	34,400	38,100
+ Other farm income	16,000	10,100	17,800	5,200	7,900	11,800	9,000
= Gross cash farm income	78,400	59,300	100,000	39,700	59,400	68,900	72,400
- Total operating expenses	65,300	50,100	79,100	30,700	47,100	55,500	55,000
= Net cash farm income	13,100	9,200	20,900	9,000	12,300	13,400	17,400
Nonfarm income	33,000	29,600	17,300	17,500	30,900	24,300	28,900
Net worth	303,800	269,700	259,600	192,400	278,800	256,100	311,300
Ratio							
Debt/asset	0.16	0.18	0.21	0.14	0.15	0.17	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Missouri farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	56	32	7	5	100
Economic class:					
Sales above \$250,000	63	d	28	d	100
Sales \$40,000-\$250,000	69	9	17	5	100
Sales below \$40,000	51	41	3	5	100
Type of farm:					
Cash grain	49	22	18	11	100
Other crops	d	41	d	40	100
Beef, hogs, and sheep	57	37	4	2	100
Other livestock and poultry	85	d	8	d	100
Operating:			Acres per farm		
Acres owned	260	160	320	160	230
Acres operated	330	230	520	310	310
			Years		
Operator age	54	55	46	40	53
Financial:			Dollars per farm		
Crop sales	15,000	2,700	32,400	13,900	12,200
+ Net CCC loans	-800	-200	-2,800	d	-800
+ Livestock sales	30,600	8,800	35,500	13,700	23,100
+ Other farm income	6,200	1,200	14,100	d	5,200
= Gross cash farm income	51,000	12,500	79,200	31,800	39,700
- Cash operating expenses	34,000	17,300	58,600	39,900	30,700
= Net cash farm income	17,000	-4,800	20,600	-8,100	9,000
Nonfarm income	16,200	20,600	8,500	25,200	17,500
Total assets	259,100	166,100	260,900	169,900	224,900
Total debt	19,400	14,600	159,500	116,500	32,500
Ratios:			Ratio		
Debt/asset	0.07	0.09	0.61	0.69	0.14
Return on assets	.03	-.03	.06	-.02	.02
Cash expenses/gross income	.67	1.38	.74	1.25	.78
Interest/gross income	.05	.13	.18	.27	.08

d = Data insufficient for disclosure.

Missouri's farms averaged 310 acres, a decrease of 30 acres from last year. This equalled the regional average and only Illinois had larger farms. An average of 74 percent of the acres were owned. Missouri farmers averaged 53 years of age.

The middle sales class of \$40,000 - \$250,000 had a much higher percentage of favorable farms (69) than the other two classes, and a full 86 percent of farms in this class had positive incomes. The largest sales class had 91 percent of farms with positive incomes. No other Corn Belt State in any sales class had this high a percentage.

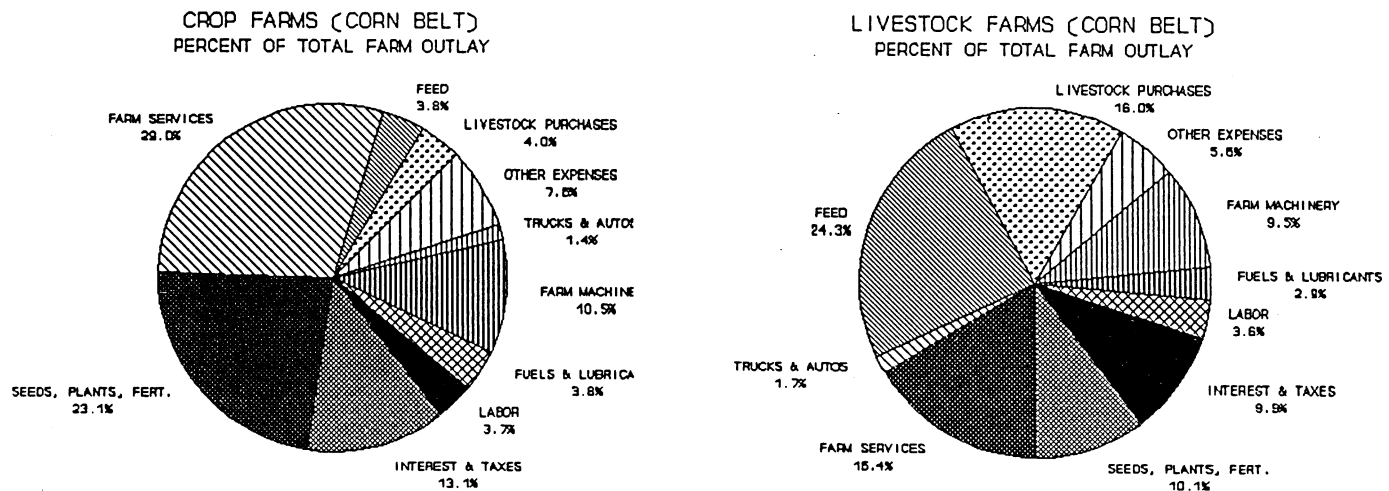
The "other livestock and poultry" category had the highest percentage of favorable farms with 85 percent. The crops other than cash grains category had the highest percentage of vulnerable farms. From a debt standpoint, the beef, hogs, and sheep farm category

had the highest percentage with low debt (94 percent), although the "other livestock" category was nearly as good. The crops other than cash grains category had the highest percentage of farms with high debt.

The marginal solvency farms had the highest sales, both for crops and livestock, but these farms also averaged the largest in acreage. Cash operating expenses for this group were also the largest, but net income still was the highest of any financial position category.

Net cash income ranged from -\$8,100 to \$20,600. The overall State average net cash income was \$9,000 in 1988, down from \$10,900 in 1987. This difference is minor due to holding expenses to only an \$1,100 increase and a \$4,400 increase in livestock sales.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Corn Belt totaled \$24.9 billion in 1988, down 3.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased outlays for feed, livestock and poultry, fertilizer, agricultural chemicals, taxes, farm supplies, farm and land improvements, and trucks and autos

were offset by increases in all other major regional expense items. Expenditures for crop farms at \$12.7 billion were 51 percent of the total regional expenses, compared to 58 percent in 1987. Major expense items were farm services (29 percent), and fertilizer and farm machinery (both 11 percent). Over two-thirds of the livestock farm expenses were for feed (24 percent), farm services and livestock and poultry (both 16 percent), and farm machinery.

Table 4--Selected production expenditures by type of farm, 1988

Corn Belt (IL, IN, IA, MO, AND OH)	Crop farms	Livestock farms	All farms	
			Region	U.S.
			1,000 Dollars	
Total farm production expenditures	12,700,089	12,246,089	24,946,178	118,361,751
Livestock & poultry	504,016	1,959,230	2,463,246	13,607,228
Feed	484,708	2,969,807	3,454,515	17,914,533
Farm services	3,681,182	2,005,684	5,686,866	24,630,395
Ag. chemicals & sprays	787,578	304,483	1,092,061	3,858,857
Fertilizer	1,454,352	655,036	2,109,388	6,957,661
Interest	1,049,590	845,785	1,895,375	8,365,499
Taxes (property & real estate)	615,357	368,591	983,948	3,927,991
Labor	463,663	441,600	905,263	10,224,049
Fuels & lubricants	486,532	358,889	845,421	4,450,295
Farm supplies	126,149	166,516	292,665	2,249,336
Building & fencing	134,173	261,053	395,226	2,226,172
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Total farm machinery	1,336,382	1,169,000	2,505,382	11,501,269
Seeds	698,958	282,815	981,773	3,692,164
Trucks & autos	173,616	203,872	377,488	2,058,496
Other unallocated expenses	632,986	175,790	808,776	1,754,751

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### **In this report...**

Overall, financial conditions of Missouri farms and ranches remained stable during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Missouri Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Ohio

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Ohio farm operators experienced a modest deterioration in their overall financial condition during 1988. The proportion of farms in a favorable financial position declined from 51 percent in 1987 to 47 percent, while 7 percent were vulnerable compared with 8 percent in 1987.

Average net cash income increased by \$3,500 over 1987, yet fewer farms had positive income. Farms experiencing higher feed costs, reduced yields, or crop failure as a result of drought were faced with lower incomes. In contrast, 1988 drought provided higher prices for those that were able to harvest crops or had reserves on hand.

The solvency position of Ohio farms continued to improve in 1988. Increases in land values and efforts by farmers to payoff debts or avoid debt financing have helped to reduce the share of farms with high debt. The average farm's net worth rose by 11 percent from 1987. The average debt/asset ratio remained constant at 0.15.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Ohio farm financial position

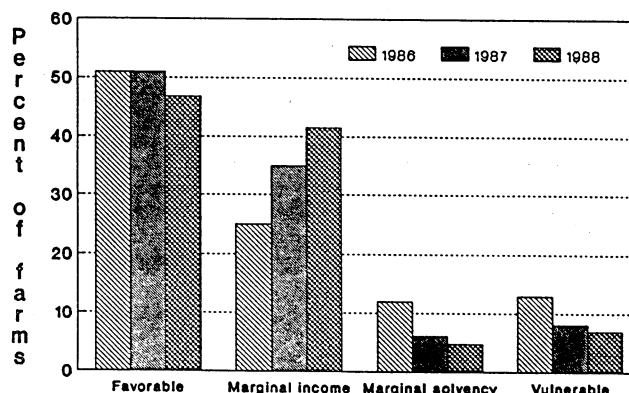


Table 1--Financial performance of Corn Belt States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Illinois	55	30	6	9
Indiana	46	38	8	8
Iowa	58	24	11	7
Missouri	56	32	7	5
Ohio	47	41	5	7
Corn Belt	53	32	8	7
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	IL	IN	IA	MO	OH	Corn Belt	U.S.
<b>Acres per farm</b>							
Acres operated 1/	370	270	310	310	250	310	470
<b>Dollars per farm</b>							
Crop sales	36,000	27,400	28,700	12,200	29,200	26,000	26,200
+ Net CCC loans	-5,400	-1,700	-5,900	-800	-1,000	-3,200	-900
+ Livestock sales	31,900	23,500	59,400	23,100	23,300	34,400	38,100
+ Other farm income	16,000	10,100	17,800	5,200	7,900	11,800	9,000
= Gross cash farm income	78,400	59,400	100,000	39,600	59,400	68,900	72,400
- Total operating expenses	65,300	50,100	79,100	30,700	47,100	55,500	55,000
= Net cash farm income	13,100	9,200	20,900	9,000	12,300	13,400	17,400
Nonfarm income	33,000	29,600	17,300	17,500	30,900	24,300	28,900
Net worth	303,800	269,700	259,600	192,400	278,800	256,100	311,300
<b>Ratio</b>							
Debt/asset	0.16	0.18	0.21	0.14	0.15	0.17	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.



Table 3--Average operating and financial characteristics for Ohio farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency Percent	Vulnerable	All farms
All farms	47	41	5	7	100
Economic class:					
Sales above \$250,000	50	24	19	7	100
Sales \$40,000-\$250,000	63	19	11	7	100
Sales below \$40,000	38	55	d	d	100
Type of farm:					
Cash grain	53	35	5	7	100
Other crops	32	51	11	6	100
Beef, hogs, and sheep	38	51	4	7	100
Other livestock and poultry	57	34	d	d	100
Operating:			Acres per farm		
Acres owned	160	110	120	110	130
Acres operated	310	170	430	240	250
			Years		
Operator age	55	55	41	43	53
Financial:			Dollars per farm		
Crop sales	44,700	9,000	61,100	20,100	29,200
+ Net CCC loans	-400	-1,800	2,300	-3,000	-1,000
+ Livestock sales	32,500	10,200	41,800	24,600	23,300
+ Other farm income	10,400	4,400	15,500	7,500	7,900
= Gross cash farm income	87,200	21,600	120,800	49,200	59,400
- Cash operating expenses	52,500	31,100	94,300	72,400	47,100
= Net cash farm income	34,700	-9,400	26,400	-23,200	12,300
Nonfarm income	22,600	35,200	20,000	72,600	30,900
Total assets	364,600	307,200	296,500	236,500	329,100
Total debt	29,400	30,800	197,700	209,300	50,300
Ratios:			Ratio		
Debt/asset	0.08	0.10	0.67	0.89	0.15
Return on assets	.04	-.04	.04	-.07	0
Cash expenses/gross income	.60	1.44	.78	1.47	.79
Interest/gross income	.04	.17	.13	.40	.09

d = Data insufficient for disclosure.

Ohio's farms averaged 250 acres, an increase of 40 acres from last year. This was the smallest farm size in the region. Nearly half of these acres were rented. In 1988, the average age of Ohio farmers was 53 years. Both land tenure and operator age varied by financial position. Operators of marginally solvent farms were younger and owned a lower portion of land operated.

Farms with sales of \$40,000 - \$250,000 had a much higher percentage of favorable farms than the other two economic classes, and a full 74 percent of farms in this class had positive incomes. The smallest sales class, normally considered non-commercial and more dependent on off farm sources of income, had 93 percent of the farms in a low-debt position.

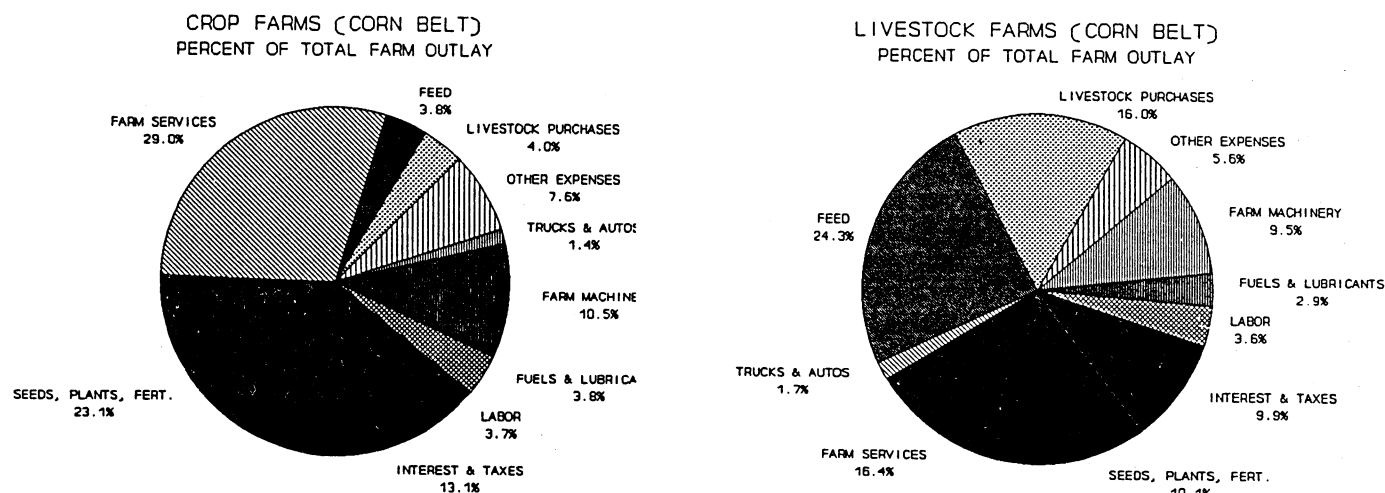
Cash grain and livestock farms were about equal in percent of farms with low debt. Farms classified as specializing in crops other than cash grains, however, averaged 83 percent with low debt/asset ratios.

The marginal solvency farms had the highest sales, both for crops and livestock, operated the largest acreage and incurred the highest operating expenses. Favorable farms earned the highest average net cash farm income, while the return on assets was identical with marginal solvency farms at 4 percent.

Farms in the vulnerable category had a similar debt/asset structure to marginally solvent operations, yet their farm business earnings were consumed by cash expenses. This was particularly true for interest expense which captured 40 percent of gross cash farm income. However, these farms had average nonfarm income of \$72,600 which would more than alleviate their farm business losses.

The value of the average farm's assets grew \$57,200 while debt grew by \$9,700. The 1988 debt/asset ratio ranged from 0.08 for the favorable group to 0.89 for the vulnerable group, with a State average of 0.15.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Corn Belt totaled \$24.9 billion in 1988, down 3.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased outlays for feed, livestock and poultry, fertilizer, agricultural chemicals, taxes, farm supplies, farm and land improvements, and trucks and autos

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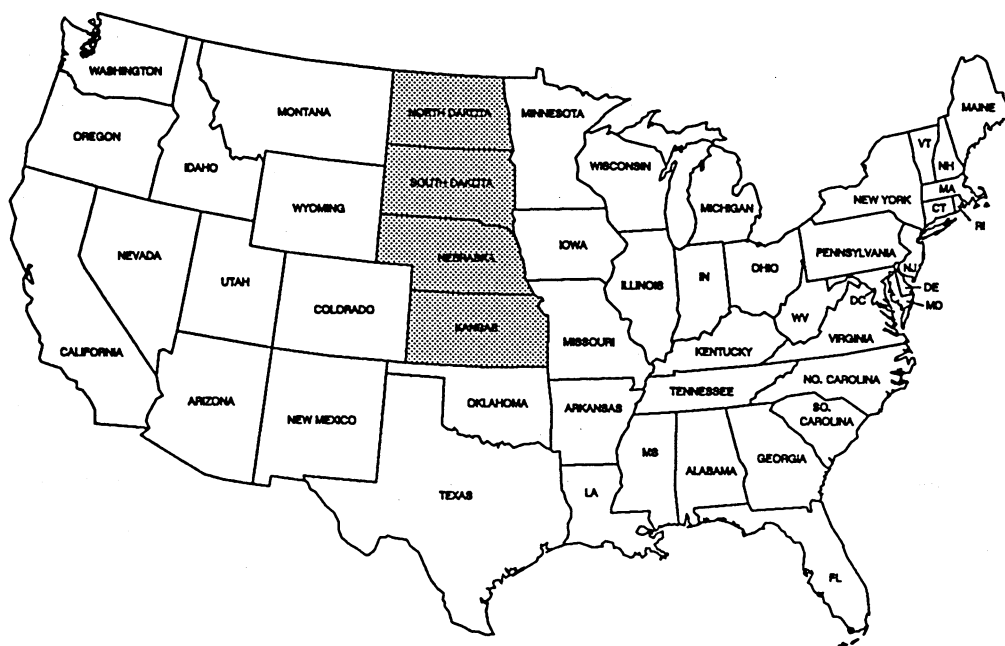
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## NORTHERN PLAINS



The Northern Plains was estimated to have 153,000 farm operations in 1988, which represented 9 percent of all U.S. farms and ranches. Beef, hog, or sheep and cash grain were the most common production specialties, accounting for 49 and 43 percent of farms, respectively. Forty percent of farms had gross sales below \$40,000, while the \$40,000-\$99,999 category had the highest percentage of farms (28 percent). Ninety-three percent were organized as individual operations, 5 percent as partnerships. The remaining 2 percent were either cooperatives or corporations. A third of farms were larger than 1,000 acres, while only 15 percent were under 100 acres in size. Thirty-four percent of farmers owned all of the land they operated. Full tenants accounted for 12 percent of farms and the remaining 54 percent of farm operators were partial owners of the land they farmed in 1988.

An estimated 38 percent of total land operated in the Northern Plains was devoted to crop production, 46 percent went for pasture, 9 percent was idle under Government programs, and the remainder was for summer fallow, woodland or some other use. Northern Plains farm operators accounted for 15 percent of U.S. livestock sales and 10 percent of all crop sales in 1988. Within the Northern Plains, wheat accounted for a third of total crop sales, corn, barley, oats, and sorghum combined represented 34 percent and soybeans 19 percent. The highest ranking livestock products, in terms of gross sales, were cattle (58 percent) and hogs (18 percent). Three-fourths of all farm or ranch operators participated in government programs, accounting for 21 percent of U.S. total payments. The typical farmer was 52 years old and averaged working 43 hours per week on the farm. Over 80 percent of farm operators indicated that farming was their primary occupation. Eighty-six percent reported nonfarm earnings which represented only 5 percent of U.S. farm operator household off-farm income in 1988.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Kansas

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Despite 1988 drought, the overall financial position of Kansas farms showed improvement. The proportion of farms in a favorable financial position was similar to a year ago at 57 percent. The share of farms and ranches classified as vulnerable declined from 7 percent to 5 percent, giving Kansas the lowest percentage of farms in this category among all States in the region. Most of the improvement in financial conditions was associated with farmer's leverage position. The average debt/asset ratio fell to 0.18 from 0.23 a year earlier, while the percentage of farms with high debt declined from 21 percent at the end of 1987 to 17 percent.

The economic impacts of drought were evident by the nearly \$7,000 decline in average net cash farm income. Moreover, since 1987 the share of farms with positive net cash income was down 12 percentage points. Just as in 1987, Kansas farm households earned the highest average nonfarm income in the region at \$21,400. Kansas farms experienced a similar decline in average net worth as did other Northern Plains States, ending 1988 with an average value of \$232,100.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Kansas farm financial position

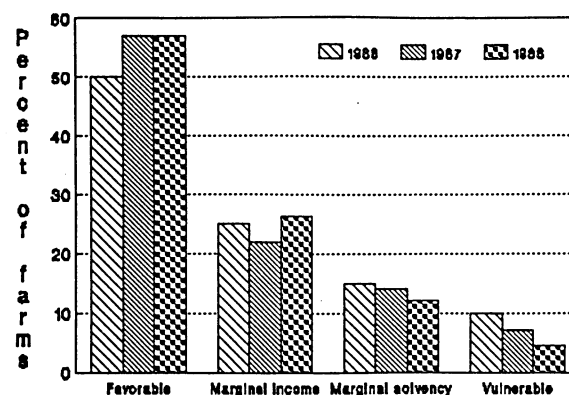


Table 1--Financial performance of Northern Plains

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Kansas	57	26	12	5
Nebraska	59	17	16	8
North Dakota	67	12	11	10
South Dakota	55	24	15	6
Northern Plains	58	21	14	7
U.S.	46	40	7	7

Table 1--Selected average operating and financial characteristics, 1988

	KS	NE	ND	SD	Northern Plains	U.S.
Acres per farm						
Acres operated 1/	760	1,040	1,400	1,580	1,100	470
Dollars per farm						
Crop sales	24,300	36,800	40,100	20,300	30,000	26,200
+ Net CCC loans	-1,300	-2,700	-5,400	-3,400	-2,800	-900
+ Livestock sales	58,000	67,100	27,500	81,100	59,500	38,100
+ Other farm income	12,700	17,500	28,700	16,800	17,700	9,000
= Gross cash farm income	93,700	118,700	90,900	114,800	104,300	72,400
- Total operating expenses	66,800	81,500	65,200	93,600	75,600	55,000
= Net cash farm income	26,900	37,200	25,700	21,200	28,700	17,400
Nonfarm income	21,400	13,600	17,000	16,300	17,400	28,900
Net worth	232,100	276,200	320,300	381,300	287,200	311,300
Ratio						
Debt/asset	0.18	0.20	0.22	0.18	0.19	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Kansas farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	57	26	12	5	100
Economic class:					
Sales above \$250,000	54	10	31	4	100
Sales \$40,000-\$250,000	68	12	16	4	100
Sales below \$40,000	49	38	8	5	100
Type of farm:					
Cash grain	60	16	17	7	100
Other crops	82	d	d	13	100
Beef, hogs, and sheep	52	38	8	2	100
Other livestock and poultry	55	20	25	0	100
Operating:			Acres per farm		
Acres owned	370	240	310	270	330
Acres operated	780	460	1,250	920	760
			Years		
Operator age	55	54	42	48	53
Financial:			Dollars per farm		
Crop sales	26,400	8,900	49,000	18,800	24,300
+ Net CCC loans	-800	-1,900	-1,000	-3,800	-1,300
+ Livestock sales	50,400	24,400	169,700	43,100	58,000
+ Other farm income	12,700	4,700	29,000	13,100	12,700
= Gross cash farm income	88,700	36,100	246,700	71,200	93,700
- Cash operating expenses	58,400	46,100	139,900	92,900	66,800
= Net cash farm income	30,300	-10,000	106,800	-21,700	26,900
Nonfarm income	18,600	27,800	11,200	48,000	21,400
Total assets	322,800	206,100	283,700	237,700	283,700
Total debt	33,200	24,100	163,600	140,800	51,600
Ratios:			Ratio		
Debt/asset	0.10	0.12	0.58	0.59	0.18
Return on assets	.06	-.03	.07	-.01	.04
Cash expenses/gross income	.66	1.28	.57	1.30	.71
Interest/gross income	.04	.11	.07	.19	.06

d = Data insufficient for disclosure.

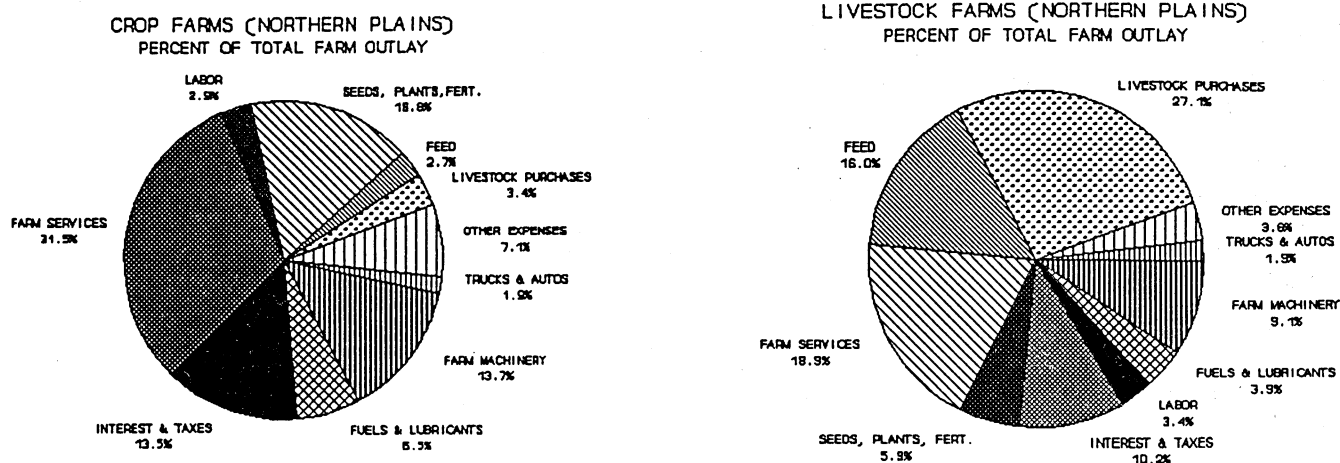
The proportion of farms with high debt was directly related with farm size, declining from 35 percent for farms with gross sales above \$250,000 to 13 percent for farms in the smallest economic class. Operations in the \$40,000 to \$250,000 class were in a stronger overall financial position than either the largest or smallest farms since they had the fewest financially vulnerable farms and the highest percentage categorized as favorable.

Crop farms other than cash grain, because of their diversity, showed considerable variability in financial performance with the highest percentage of both favorable and vulnerable farms. Beef, hog, and sheep farms had roughly the same proportion of favorable farms as other livestock and poultry operations at 52 and 55 percent, respectively. However, beef, hog, and sheep farms were more likely to be in a marginal income position, while other livestock and poultry operations were more likely marginally solvent.

Farms and ranches in Kansas averaged 760 acres, 70 acres less than in 1987. On average, farm operators owned 43 percent of acres operated. Marginal income farmers operated the fewest acres (460) while owning the largest proportion (51 percent). At the opposite extreme, farms categorized as marginal solvency had the largest acreage (1,250), and only 1 out of 4 of these acres were owned by the farm operator.

Marginally solvent farms were run by the youngest operators, had the largest average net cash farm income, and the highest return on assets, pointing out that high debt can be successfully managed. Farms in the vulnerable category had a similar debt/asset structure to marginally solvent operations, yet their farm business earnings were consumed by cash expenses. This was particularly true for interest expense which represented 19 percent of gross farm income. However, these farms, on average, had \$48,000 of nonfarm income which would more than alleviate their farm businesses losses.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northern Plains totaled \$15.0 billion in 1988, up 7 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Reduced outlays for interest, labor, and building and fencing were offset by major increases in all other items. Expenditures by livestock farms at \$8.9

billion were 60 percent of the total regional expenses, compared to 56 percent in 1987. Major expenses on livestock farms were livestock & poultry (27 percent), farm services (19 percent) and feed (16 percent). Crop farm expenditures totaled \$6.1 billion, 40 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services (31 percent), farm machinery (14 percent), and interest (9 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northern Plains (KS, NE, ND AND SD)	Crop	Livestock	All Farms	
	farms	farms	Region	U.S.
	<u>1,000 Dollars</u>			
Total farm production expenditures	6,061,056	8,919,542	14,980,598	118,361,751
Livestock & poultry	210,141	2,416,644	2,626,785	13,607,228
Feed	161,740	1,424,833	1,586,573	17,914,533
Farm services	1,907,265	1,687,323	3,594,588	24,630,395
Ag. chemicals & sprays	243,185	114,838	358,023	3,858,857
Fertilizer	470,322	260,069	730,391	6,957,661
Interest	520,147	588,071	1,108,218	8,365,499
Taxes (property & real estate)	296,114	320,397	616,511	3,927,991
Labor	173,529	300,108	473,637	10,224,049
Fuels & lubricants	394,089	348,508	742,597	4,450,295
Farm supplies	73,401	93,208	166,609	2,249,336
Building & fencing	42,226	120,207	162,433	2,226,172
Farm & land improvements	50,467	56,184	106,651	943,058
Total farm machinery	832,479	815,716	1,648,195	11,501,269
Seeds	303,280	150,919	454,199	3,692,164
Trucks & autos	116,603	170,615	287,218	2,058,496
Other unallocated expenses	266,080	51,900	317,980	1,754,751

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### **In this report...**

Despite 1988 drought, the overall financial position of Kansas farms showed improvement, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Kansas Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Nebraska

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Despite higher average net cash income, a greater share of Nebraska farms experienced financial difficulties than a year earlier. An estimated 59 percent of farms were in a favorable financial position compared with 68 percent in 1987. This was slightly higher than the regional share, and over 10 points above the U.S. percentage of favorable farms. Eight percent were classified as vulnerable which was up from 5 percent a year ago.

Nebraska was one of the few States in the region which had an increase in the average debt/asset ratio and a decline in average net worth. The share of farms with debt/asset ratios above 0.40 increased from 15 percent at the end of 1987 to the current figure of 24 percent.

Average net cash farm income was \$5,800 higher than in 1987, but one in four farms had negative income which was 3 percentage points higher than a year earlier. Nebraska had the highest average net cash farm income and lowest nonfarm income of Northern Plains States.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Nebraska farm financial position

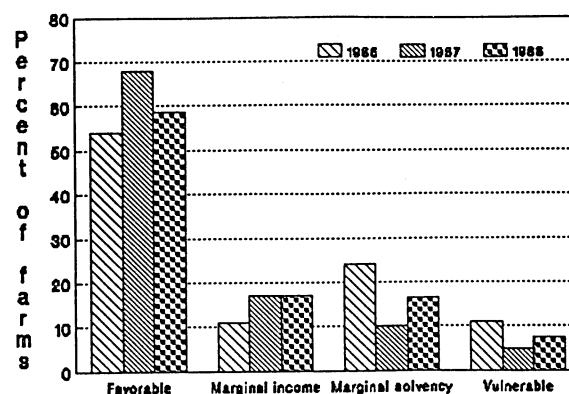


Table 1--Financial performance of Northern Plains

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Kansas	57	26	12	5
Nebraska	59	17	16	8
North Dakota	67	12	11	10
South Dakota	55	24	15	6
Northern Plains	58	21	14	7
U.S.	46	40	7	7

Table 1--Selected average operating and financial characteristics, 1988

	KS	NE	ND	SD	Northern Plains	U.S.
Acres per farm						
Acres operated 1/	760	1,040	1,400	1,580	1,100	470
Dollars per farm						
Crop sales	24,300	36,800	40,100	20,300	30,000	26,200
+ Net CCC loans	-1,300	-2,700	-5,400	-3,400	-2,800	-900
+ Livestock sales	58,000	67,100	27,500	81,100	59,500	38,100
+ Other farm income	12,700	17,500	28,700	16,800	17,700	9,000
= Gross cash farm income	93,700	118,700	90,900	114,800	104,300	72,400
- Total operating expenses	66,800	81,500	65,200	93,600	75,600	55,000
= Net cash farm income	26,900	37,200	25,700	21,200	28,700	17,400
Nonfarm income	21,400	13,600	17,000	16,300	17,400	28,900
Net worth	232,100	276,200	320,300	381,300	287,200	311,300
Ratio						
Debt/asset	0.18	0.20	0.22	0.18	0.19	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Nebraska farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	59	17	16	8	100
Economic class:					
Sales above \$250,000	68	d	26	d	100
Sales \$40,000-\$250,000	58	11	23	8	100
Sales below \$40,000	58	29	6	7	100
Type of farm:					
Cash grain	62	9	19	10	100
Other crops	46	12	29	13	100
Beef, hogs, and sheep	59	23	12	6	100
Other livestock and poultry	65	17	18	0	100
Operating:			Acres per farm		
Acres owned	660	190	450	260	520
Acres operated	1,100	580	1,480	600	1,040
			Years		
Operator age	56	48	43	43	51
Financial:			Dollars per farm		
Crop sales	42,300	10,900	49,100	24,000	36,800
+ Net CCC loans	-1,200	-3,900	-5,000	-6,300	-2,700
+ Livestock sales	62,700	21,000	140,800	42,800	67,100
+ Other farm income	18,400	10,000	24,400	12,800	17,500
= Gross cash farm income	122,200	38,000	209,300	73,300	118,700
- Cash operating expenses	75,300	49,300	130,700	94,200	81,500
= Net cash farm income	46,900	-11,300	78,600	-20,900	37,200
Nonfarm income	13,100	12,400	13,800	19,000	13,600
Total assets	412,200	226,800	309,600	174,300	346,200
Total debt	41,800	32,000	180,500	133,800	70,000
Ratios:			Ratio		
Debt/asset	0.10	0.14	0.58	0.77	0.20
Return on assets	.09	-.05	.16	-.11	.08
Cash expenses/gross income	.62	1.30	.62	1.29	.69
Interest/gross income	.04	.10	.07	.15	.06

d = Data insufficient for disclosure.

Nebraska farms and ranches in the largest economic class (more than \$250,000 in gross sales) were more likely to be in a favorable financial position (68 percent) than farms in the smaller classes (58 percent). Financial difficulties for farms with gross sales above \$40,000 were largely related to debt/asset structure or farm business solvency. The smallest farms, in terms of gross sales, more often had problems generating sufficient farm income to cover operating expenses. These farms are generally regarded as part-time farming operations that are more dependent on nonfarm sources of income.

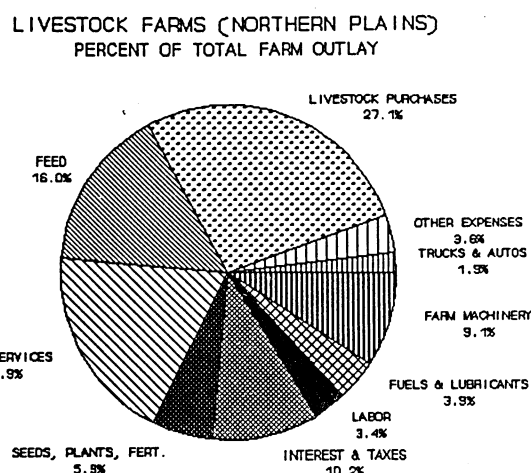
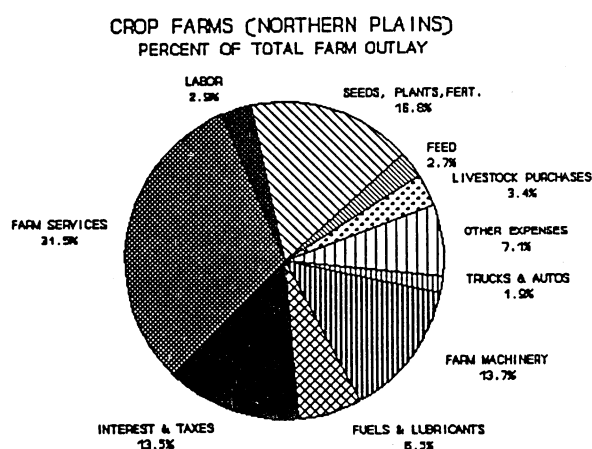
In general, fewer livestock operations were vulnerable than crop farms. Producers of cash grains were in a stronger overall financial position than the combination of all other crop farms. Farms that specialized in the production of livestock other than beef, hog and

sheep ended 1988 in a stronger financial position than their counterparts.

On average, farmers and ranchers in Nebraska owned one-half of the 1,040 acres operated in 1988. Land tenure varied by financial position with ownership ranging from 60 percent for favorable farms to 31 percent for marginal solvency farms. Operators with high debt were younger than operators of other farms.

Marginally solvent farms had the highest average net cash income and return on assets with a debt/asset ratio of 0.58. This suggest that high debt can be successfully managed to provide an adequate return to the farm business. Vulnerable farms had an average cash deficit of \$21,000, but had the highest nonfarm income at \$19,000.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northern Plains totaled \$15.0 billion in 1988, up 7 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Reduced outlays for interest, labor, and building and fencing were offset by major increases in all other items. Expenditures by livestock farms at \$8.9

billion were 60 percent of the total regional expenses, compared to 56 percent in 1987. Major expenses on livestock farms were livestock & poultry (27 percent), farm services (19 percent) and feed (16 percent). Crop farm expenditures totaled \$6.1 billion, 40 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services (31 percent), farm machinery (14 percent), and interest (9 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northern Plains (KS, NE, ND AND SD)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
1,000 Dollars				
Total farm production expenditures	6,061,056	8,919,542	14,980,598	118,361,751
Livestock & poultry	210,141	2,416,644	2,626,785	13,607,228
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Farm services	1,907,265	1,687,323	3,594,588	24,630,395
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Fuels & lubricants	394,089	348,508	742,597	4,450,295
Farm supplies	73,401	93,208	166,609	2,249,336
Building & fencing	42,226	120,207	162,433	2,226,172
Farm & land improvements	50,467	56,184	106,651	943,058
Total farm machinery	832,479	815,716	1,648,195	11,501,269
Seeds	303,280	150,919	454,199	3,692,164
Trucks & autos	116,603	170,615	287,218	2,058,496
Other unallocated expenses	266,080	51,900	317,980	1,754,751

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### **In this report...**

Despite higher average net cash income, a greater share of Nebraska farms experienced financial difficulties than a year earlier, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Nebraska Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: North Dakota

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Farm financial conditions in North Dakota reflected the diverse economic impacts of last year's drought. More than two-thirds of North Dakota farms and ranches were considered in a favorable financial position. This was the highest proportion of any State in the Northern Plains and represented an 8 percent increase since 1987. In contrast, North Dakota also led all States in the region with 10 percent of farms in a vulnerable financial position. A year earlier 6 percent were classified as vulnerable. These results exemplified the variability in financial performance of farm businesses during 1988.

The share of North Dakota farms with high debt fell from 31 percent at the end of 1987 to 21 percent. The average debt/asset ratio of 0.22 was highest in the region, but lower than last year's average of 0.24. Net worth declined by 6 percent compared with a 3 percent reduction for the region. Average net cash income was \$3,100 higher than a year ago, yet there were more farms with negative incomes (22 percent compared with 16 percent in 1987).

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--North Dakota farm financial position

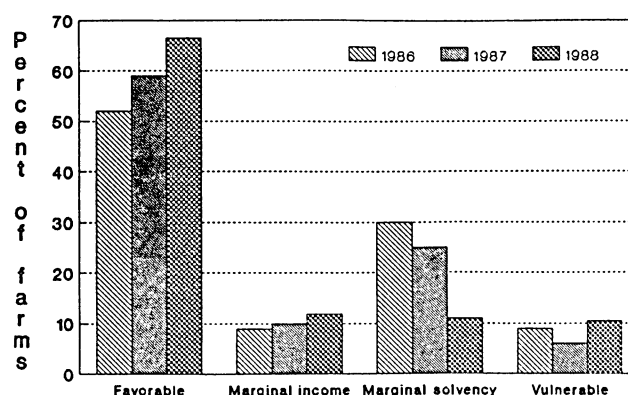


Table 1--Financial performance of Northern Plains

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Kansas	57	26	12	5
Nebraska	59	17	16	8
<b>North Dakota</b>	<b>67</b>	<b>12</b>	<b>11</b>	<b>10</b>
South Dakota	55	24	15	6
Northern Plains	58	21	14	7
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	KS	NE	ND	SD	Northern Plains	U.S.
<u>Acres per farm</u>						
Acres operated 1/	760	1,040	1,400	1,580	1,100	470
<u>Dollars per farm</u>						
Crop sales	24,300	36,800	40,100	20,300	30,000	26,200
+ Net CCC loans	-1,300	-2,700	-5,400	-3,400	-2,800	-900
+ Livestock sales	58,000	67,100	27,500	81,100	59,500	38,100
+ Other farm income	12,700	17,500	28,700	16,800	17,700	9,000
= Gross cash farm income	93,700	118,700	90,900	114,800	104,300	72,400
- Total operating expenses	66,800	81,500	65,200	93,600	75,600	55,000
= Net cash farm income	26,900	37,200	25,700	21,200	28,700	17,400
Nonfarm income	21,400	13,600	17,000	16,300	17,400	28,900
Net worth	232,100	276,200	320,300	381,300	287,200	311,300
<u>Ratio</u>						
Debt/asset	0.18 <sup>3</sup>	0.20	0.22	0.18	0.19	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for North Dakota farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	67	12	11	10	100
Economic class:					
Sales above \$250,000	59	d	33	d	100
Sales \$40,000-\$250,000	62	11	14	13	100
Sales below \$40,000	81	16	d	d	100
Type of farm:					
Cash grain	66	14	12	8	100
Other crops	72	0	28	0	100
Beef, hogs, and sheep	68	8	8	16	100
Other livestock and poultry	66	12	22	0	100
Operating:			Acres per farm		
Acres owned	790	620	740	590	750
Acres operated	1,360	1,140	1,690	1,620	1,400
			Years		
Operator age	53	47	40	40	49
Financial:			Dollars per farm		
Crop sales	39,000	22,800	83,700	15,600	40,100
+ Net CCC loans	-4,300	-13,400	-4,500	-4,700	-5,400
+ Livestock sales	29,200	8,800	34,400	30,700	27,500
+ Other farm income	25,500	26,700	46,800	30,900	28,700
= Gross cash farm income	89,400	44,900	160,400	72,500	90,900
- Cash operating expenses	54,300	59,600	112,200	89,500	65,200
= Net cash farm income	35,100	-14,700	48,200	-17,000	25,700
Nonfarm income	15,600	35,000	14,000	8,500	17,000
Total assets	433,700	385,000	369,100	330,300	410,300
Total debt	46,200	62,600	259,500	217,400	90,000
Ratios:			Ratio		
Debt/asset	0.11	0.16	0.70	0.66	0.22
Return on assets	.03	-.06	.06	-.07	.01
Cash expenses/gross income	.61	1.33	.70	1.23	.72
Interest/gross income	.06	.23	.14	.30	.10

d = Data insufficient for disclosure.

The proportion of farms and ranches with high debt was directly related with farm size, declining from over 33 percent for farms with gross sales over \$250,000 to 3 percent of farms in the smallest economic class. Operations with gross sales under \$40,000 had the highest share of favorable farms (81 percent) followed by the \$40,000 to \$250,000 class (62 percent) and the largest class (59 percent).

Crop farms other than cash grain were in the strongest overall financial position among farm types having the highest percentage classified as favorable and no vulnerable operations. Beef, hog, and sheep farms had the highest proportion of vulnerable farms at 16 percent.

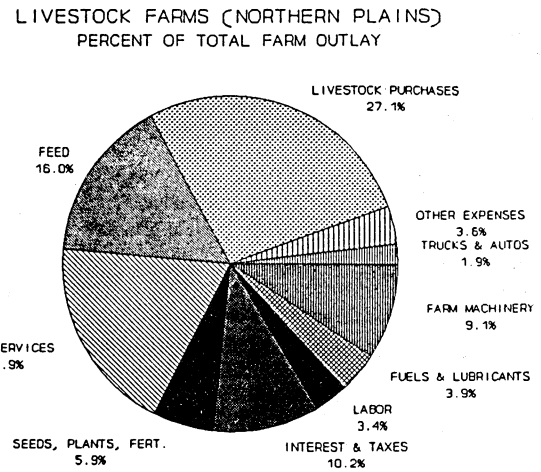
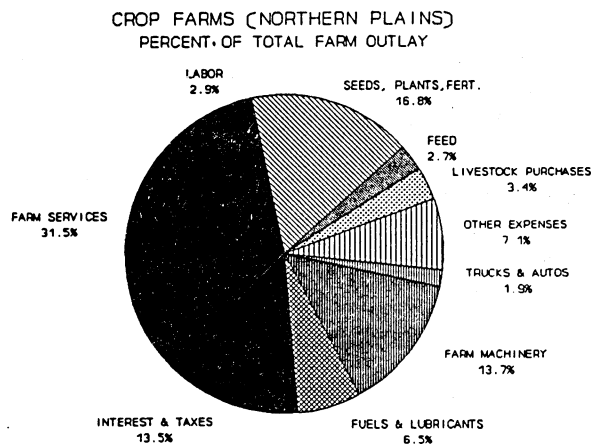
A typical farm or ranch in North Dakota averaged 1,400 acres which was roughly identical to 1987. Farm operators owned 54 percent of total acres operated, although land tenure varied by financial status. Farms in a favorable financial position operated fewer acres

(1,360) while owning the largest portion (58 percent). In contrast, vulnerable farms operated 220 more acres, but owned only 26 percent.

Marginally solvent farms had the highest average net cash farm income and the highest return on assets. Having the largest farms, this group had the highest average debt/asset ratio and one of the lowest cash expense to gross cash income ratios, pointing out that high debt can be managed while providing a respectable income to the farm.

Farms in a vulnerable financial position had a similar debt/asset structure to marginally solvent farms, yet their farm business earnings were consumed by cash expenses. This was particularly true for interest expense which accounted for 30 percent of gross cash farm income. Farm business cash losses of these farms were offset somewhat by average nonfarm income of \$8,500.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northern Plains totaled \$15.0 billion in 1988, up 7 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Reduced outlays for interest, labor, and building and fencing were offset by major increases in all other items. Expenditures by livestock farms at \$8.9 billion were 60 percent of the total regional

expenses, compared to 56 percent in 1987. Major expenses on livestock farms were livestock & poultry (27 percent), farm services (19 percent) and feed (16 percent). Crop farm expenditures totaled \$6.1 billion, 40 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services (31 percent), farm machinery (14 percent), and interest (9 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northern Plains (KS, NE, ND AND SD)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	6,061,056	8,919,542	14,980,598	118,361,751
Livestock & poultry	210,141	2,416,644	2,626,785	13,607,228
Feed	161,740	1,424,833	1,586,573	17,914,533
Farm services	1,907,265	1,687,323	3,594,588	24,630,395
Ag. chemicals & sprays	243,185	114,838	358,023	3,858,857
Fertilizer	470,322	260,069	730,391	6,957,661
Interest	520,147	588,071	1,108,218	8,365,499
Taxes (property & real estate)	296,114	320,397	616,511	3,927,991
Labor	173,529	300,108	473,637	10,224,049
Fuels & lubricants	394,089	348,508	742,597	4,450,295
Farm supplies	73,401	93,208	166,609	2,249,336
Building & fencing	42,226	120,207	162,433	2,226,172
Farm & land improvements	50,467	56,184	106,651	943,058
Total farm machinery	832,479	815,716	1,648,195	11,501,269
Seeds	303,280	150,919	454,199	3,692,164
Trucks & autos	116,603	170,615	287,218	2,058,496
Other unallocated expenses	266,080	51,900	317,980	1,754,751

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### **In this report...**

Farm financial conditions in North Dakota reflect the diverse economic impacts of last years drought, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the North Dakota Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: South Dakota

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

The financial conditions of South Dakota farms and ranches reflect negative impacts of 1988 drought. The share of South Dakota farms and ranches classified in a vulnerable financial position rose slightly from 5 percent in 1987 to 6 percent, yet these percentages remain well below the 1986 value of 14 percent. However, the combined effects of last year's drought and higher expenses shifted many farm into less favorable financial positions. The proportion of farms with positive net cash income declined from 84 percent in 1987 to 70 percent at the end of 1988.

Average net cash income of South Dakota farm operators fell \$6,500 giving them the lowest farm earnings in the region. On the positive side, nonfarm income rose by \$4,500. The average debt/asset ratio of 0.18 was identical to last year's value. Average net worth increased by \$69,600 resulting in the highest net worth among States in the Northern Plains. Despite these general improvements in the solvency position of South Dakota farm operators, the share of farms with high debt increased to 21 percent.

Figure 1--South Dakota farm financial position

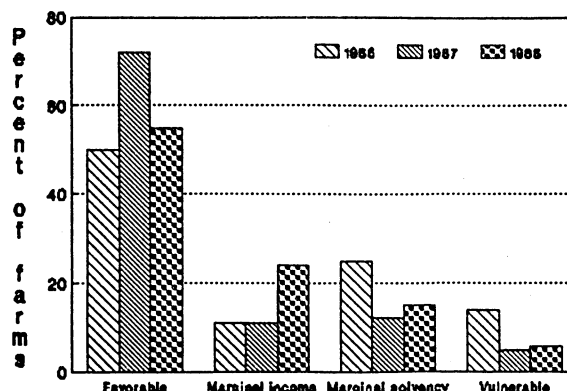


Table 1--Financial performance of Northern Plains

	Favorable	Marginal		
		Income	Solvency	Vulnerable
	Percent of farms			
Kansas	57	26	12	5
Nebraska	59	17	16	8
North Dakota	67	12	11	10
South Dakota	55	24	15	6
Northern Plains	58	21	14	7
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Table 1--Selected average operating and financial characteristics, 1988

	KS	NE	ND	SD	Northern Plains	U.S.
<b>Acres per farm</b>						
Acres operated 1/	760	1,040	1,400	1,580	1,100	470
<b>Dollars per farm</b>						
Crop sales	24,300	36,800	40,100	20,300	30,000	26,200
+ Net CCC loans	-1,300	-2,700	-5,400	-3,400	-2,800	-900
+ Livestock sales	58,000	67,100	27,500	81,100	59,500	38,100
+ Other farm income	12,700	17,500	28,700	16,800	17,700	9,000
= Gross cash farm income	93,700	118,700	90,900	114,800	104,300	72,400
- Total operating expenses	66,800	81,500	65,200	93,600	75,600	55,000
= Net cash farm income	26,900	37,200	25,700	21,200	28,700	17,400
Nonfarm income	21,400	13,600	17,000	16,300	17,400	28,900
Net worth	232,100	276,200	320,300	381,300	287,200	311,300
<b>Ratio</b>						
Debt/asset	0.18	0.20	0.22	0.18	0.19	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for South Dakota farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	55	24	15	6	100
Economic class:					
Sales above \$250,000	66	12	16	6	100
Sales \$40,000-\$250,000	58	19	18	5	100
Sales below \$40,000	43	42	8	7	100
Type of farm:					
Cash grain	49	d	27	d	100
Beef, hogs, and sheep	54	27	12	7	100
			Acres per farm		
Operating:					
Acres owned	1,130	950	480	660	960
Acres operated	1,550	1,710	1,160	2,470	1,580
			Years		
Operator age	52	55	41	52	51
			Dollars per farm		
Financial:					
Crop sales	25,000	9,600	24,000	11,000	20,300
+ Net CCC loans	-3,300	-2,900	-3,900	-5,600	-3,400
+ Livestock sales	80,100	54,300	103,500	144,400	81,100
+ Other farm income	18,600	10,900	21,900	10,700	16,800
= Gross cash farm income	120,400	71,900	145,500	160,500	114,800
- Cash operating expenses	73,300	93,400	111,500	241,200	93,600
= Net cash farm income	47,100	-21,500	34,000	-80,700	21,200
Nonfarm income	12,500	25,500	12,400	23,900	16,300
Total assets	558,700	401,400	257,800	384,300	465,300
Total debt	46,900	70,800	177,600	247,900	84,000
			Ratio		
Ratios:					
Debt/asset	0.08	0.18	0.69	0.65	0.18
Return on assets	.04	-.03	.03	0	.02
Cash expenses/gross income	.61	1.30	.77	1.50	.82
Interest/gross income	.04	.11	.10	.16	.07

d = Data insufficient for disclosure.

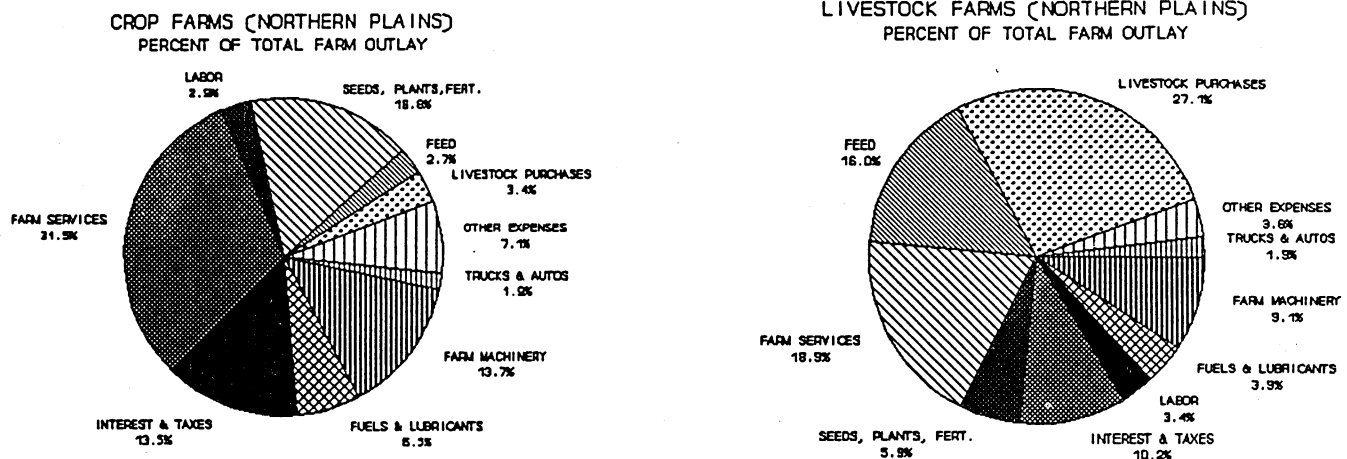
Farms and ranches in the largest economic class (over \$250,000 in gross sales) had the highest proportion of favorable operations (66 percent) followed by the \$40,000 to \$250,000 class (58 percent) and the under \$40,000 class (43 percent). There were no substantial differences in the share of vulnerable farms between economic classes. Farms in the smallest economic class were more likely to have negative net cash income than were larger farms.

A greater proportion of beef, hog, and sheep farms were in a favorable financial position than were cash grain producers, although both declined since 1987. This suggests that since they had nearly equal shares of farms in this category a year ago that the financial impacts of drought were more severe for cash grain

operations. Financial difficulties were more likely related to debt/asset structure for cash grain farms, while beef, hog, and sheep farms had greater difficulties generating sufficient income to cover operating expenses.

The average land operated by North Dakota farmers and ranchers was 1,580 acres which was more than any other State in the region. Farm operators owned over 60 percent of total land operated, although land tenure varied by financial status. Vulnerable farmers operated the largest average acres (2,470), but they owned only 27 percent. In contrast, favorable farm operators owned nearly 3 out of 4 acres operated in 1988. Operators of marginally solvent farms, who were much younger than other farmers and ranchers, operated the smallest amount of acreage.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Northern Plains totaled \$15.0 billion in 1988, up 7 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Reduced outlays for interest, labor, and building and fencing were offset by major increases in all other items. Expenditures by livestock farms at \$8.9

billion were 60 percent of the total regional expenses, compared to 56 percent in 1987. Major expenses on livestock farms were livestock & poultry (27 percent), farm services (19 percent) and feed (16 percent). Crop farm expenditures totaled \$6.1 billion, 40 percent of the regional expenses. Over one-half of the crop farm expenses were for farm services (31 percent), farm machinery (14 percent), and interest (9 percent).

Table 4--Selected production expenditures by type of farm, 1988

Northern Plains (KS, NE, ND AND SD)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	6,061,056	8,919,542	14,980,598	118,361,751
Livestock & poultry	210,141	2,416,644	2,626,785	13,607,228
Feed	161,740	1,424,833	1,586,573	17,914,533
Farm services	1,907,265	1,687,323	3,594,588	24,630,395
Ag. chemicals & sprays	243,185	114,838	358,023	3,858,857
Fertilizer	470,322	260,069	730,391	6,957,661
Interest	520,147	588,071	1,108,218	8,365,499
Taxes (property & real estate)	296,114	320,397	616,511	3,927,991
Labor	173,529	300,108	473,637	10,224,049
Fuels & lubricants	394,089	348,508	742,597	4,450,295
Farm supplies	73,401	93,208	166,609	2,249,336
Building & fencing	42,226	120,207	162,433	2,226,172
Farm & land improvements	50,467	56,184	106,651	943,058
Total farm machinery	832,479	815,716	1,648,195	11,501,269
Seeds	303,280	150,919	454,199	3,692,164
Trucks & autos	116,603	170,615	287,218	2,058,496
Other unallocated expenses	266,080	51,900	317,980	1,754,751

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### **In this report...**

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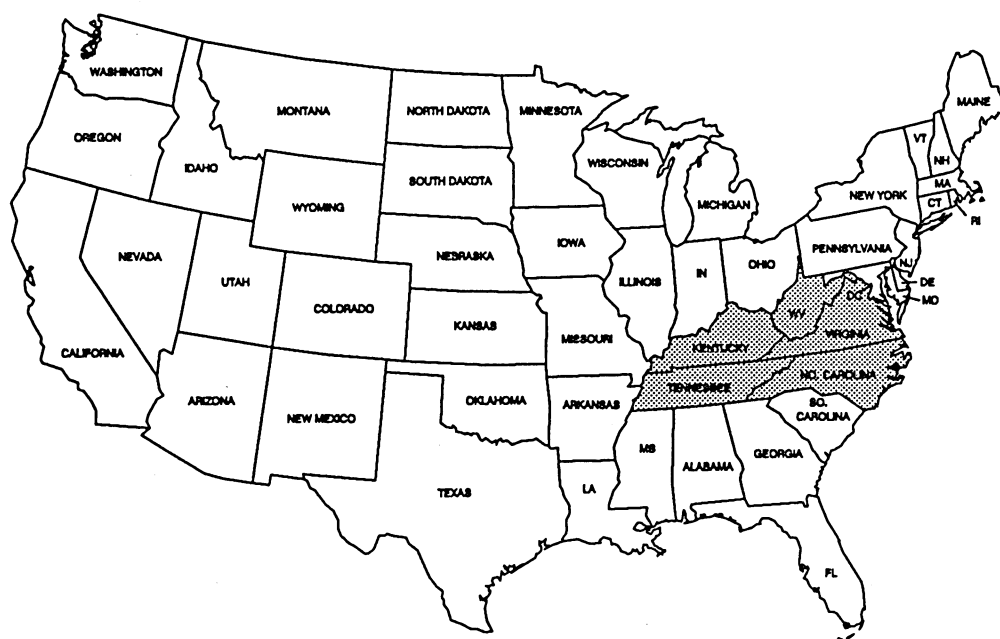
NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

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# APPALACHIA



Appalachia, with 275,600 farm operators in 1988, represented 16 percent of all U.S. farms estimated from the survey. Over 60 percent of all crop farms specialized in the production of tobacco, while producers of beef, hogs, or sheep were the most common livestock production specialty. Eighty-six percent of farms were in the economic class having less than \$40,000 in gross sales during 1987. Ninety-four percent of farms were organized as individual operations, 4 percent as partnerships, and the remaining 2 percent were either cooperatives or corporate farms. Fifty-six percent of all farms were under 100 acres in size and only 6 percent had 500 or more acres. Sixty percent owned all of the land they operated. Full tenants represented 6 percent of farms and the remaining 34 percent were partial owners of the land they farmed in 1988.

Thirty-five percent of total land operated in Appalachia was devoted to crops, 28 percent to pasture, 4 percent was idle under Government programs, and the remainder was summer fallow, woodlands, or went for some other use. Farm operators in Appalachia accounted for 5 percent of U.S. livestock sales and 8 percent of total crop sales in 1988. Tobacco, soybeans, and corn accounted for the largest proportions of crop sales at 40, 21, and 11 percent, respectively. The highest ranking livestock and poultry products, in terms of gross sales, were cattle (33 percent), milk and dairy products (30 percent), and hogs (16 percent). One in five farms participated in Government programs, accounting for 3 percent of total U.S. payments. The typical farm operator was 54 years old and averaged working 24 hours per week on the farm. Forty-seven percent considered farming to be their primary occupation. Ninety percent of farmers reported earning nonfarm income which represented 14 percent of all U.S. farm operator household off-farm income.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Kentucky

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Kentucky experienced a modest decline in the financial conditions of farm operators during 1988, yet overall, they were in a stronger financial position than for the average U.S. farm. One-half of Kentucky farms were regarded as being in a favorable financial position at the end of the year compared with 57 percent in 1987. The share of farms in a vulnerable financial position dropped from 9 percent a year ago to 6 percent.

Declines in crop and livestock sales exceeded the reduction in operating expenses resulting in a \$1,600 decrease in average net cash farm income. Also reflecting income problems, the share of farms with negative net cash farm income increased by 7 percentage points.

The average debt/asset ratio for Kentucky farm operators increased from 0.14 at the end of 1987 to 0.16. In addition, average net worth fell by over \$28,000. On the positive side, the percentage of farms with high debt went from 13 percent in 1987 to 10 percent at the end of 1988.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Kentucky farm financial position

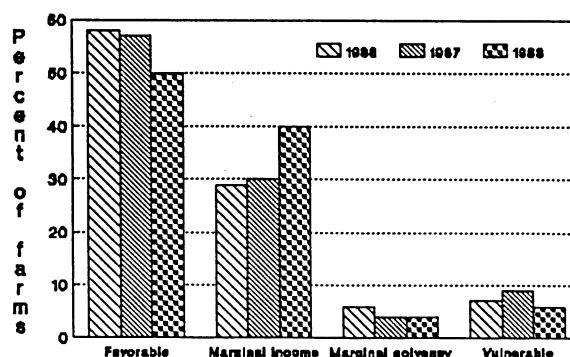


Table 1-- Financial performance of Appalachian States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Kentucky	50	40	4	6
Tennessee	39	52	3	6
Virginia and West Virginia	44	52	3	1
Appalachia	45	46	4	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	VA, WV	KY	TN	Appalachia	U.S.
Acres per farm					
Acres operated 1/	210	150	120	160	470
Dollars per farm					
Crop sales	10,700	9,200	6,900	15,500	26,200
+ Net CCC loans	0	-600	100	-200	-900
+ Livestock sales	17,100	11,200	7,900	18,100	38,100
+ Other farm income	2,900	2,500	1,200	3,100	9,000
= Gross cash farm income	30,700	22,300	16,100	36,500	72,400
- Total operating expenses	26,900	20,300	15,400	27,500	55,000
= Net cash farm income	3,800	2,000	700	9,000	17,400
Nonfarm income	27,500	25,200	29,000	26,300	28,900
Net worth	273,600	156,000	161,600	189,300	311,300
Ratio					
Debt/asset	0.07	0.16	0.08	0.11	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics for Kentucky farms by  
income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	50	40	4	6	100
Economic class:					
Sales above \$250,000	33	8	35	24	100
Sales \$40,000-\$250,000	70	9	9	12	100
Sales below \$40,000	48	44	3	5	100
Type of farm:					
Tobacco	51	39	3	7	100
Other crops	51	29	13	7	100
Beef, hogs, sheep	47	48	d	d	100
Other livestock and poultry	59	26	10	5	100
			<u>Acres per farm</u>		
Operating:					
Acres owned	120	100	110	150	110
Acres operated	150	140	200	210	150
			<u>Years</u>		
Operator age	55	54	43	40	53
			<u>Dollars per farm</u>		
Financial:					
Crop sales	8,400	4,100	56,400	20,100	9,200
+ Net CCC loans	0	-400	-3,900	-4,500	-600
+ Livestock sales	16,000	3,300	27,600	13,200	11,200
+ Other farm income	2,400	1,400	14,000	3,000	2,500
= Gross cash farm income	26,800	8,400	94,100	31,800	22,300
- Cash operating expenses	17,400	14,500	77,300	47,100	20,300
= Net cash farm income	9,400	-6,100	16,800	-15,300	2,000
Nonfarm income	18,700	30,800	31,800	38,100	25,200
Total assets	188,300	171,500	224,800	221,600	184,900
Total debt	8,800	14,000	234,900	163,800	28,900
			<u>Ratio</u>		
Ratios:					
Debt/asset	0.05	0.08	1.04	0.74	0.16
Return on assets	.03	-.02	.03	-.03	.01
Cash expenses/gross income	.65	1.72	.82	1.48	.91
Interest/gross income	.03	.17	.23	.41	.12

d = Data insufficient for disclosure.

In 1988, the \$40,000 - \$250,000 economic class had the highest percentage of favorable farm operators. Only one-third of farms in the largest economic class were in a favorable financial position, while 1 in 4 farms were financially vulnerable. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms. However, these farms are normally regarded as part-time farming operations that are more dependent on off-farm sources of income.

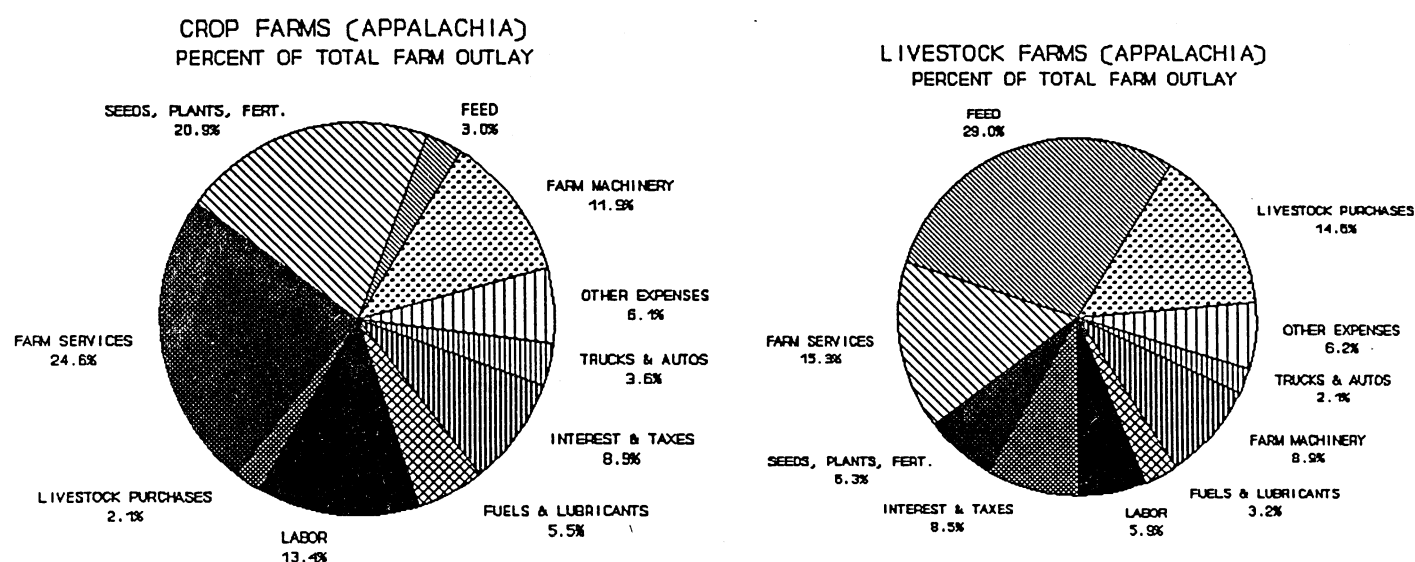
Tobacco farms had a similar financial performance to other crop producers in terms of the percentage of favorable and vulnerable operations. A larger share of tobacco farms had negative incomes, while producers of other crops were more inclined to have high debt. Farms that specialized in the production of livestock other than beef, hogs, or sheep ended 1988 in a stronger overall financial position than other farm types by having the highest percentage of favorable farms and the lowest

proportion of vulnerable operations.

The average farm in Kentucky was 150 acres, 50 acres less than last year. Farm operators owned roughly 3 out of 4 acres operated. The average age of farm operators in 1988 was 53 years. Acres operated, land tenure, and operator age showed considerable variation across financial categories. Farms in the vulnerable category were run by the youngest operators and had the largest acreage. Marginally solvent farms rented a larger proportion of land operated than did other farms.

Marginally solvent farms had the highest net cash income, pointing out that high debt can be successfully managed to provide an adequate return to the farm operation. Nonfarm earnings helped to offset farm losses of both marginal income and vulnerable farms.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Appalachian region totaled \$8.9 billion in 1988, up 17 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increases in all major regional expenses categories were only offset slightly by a slight decline in livestock and poultry expenses.

Expenditures for livestock farms at \$5.3 billion were 60 percent of the total regional expenses compared to 58 percent in 1987. Major expenses items on livestock farms were feed (29 percent), farm services and livestock and poultry (both 15 percent). Crop farm expenditures total \$3.6 billion, 40 percent of the regional expenses. Over one-half of the crop farms expenses were for farm services (25 percent), labor (13 percent), and farm machinery (12 percent).

Table 4--Selected production expenditures by type of farm, 1988

Appalachia (KY, NC, TN, VA AND WV)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
1,000 Dollars				
Total farm production expenditures	3,605,132	5,326,957	8,932,089	118,361,751
Livestock & poultry	75,652	777,688	853,340	13,607,228
Feed	107,352	1,547,446	1,654,798	17,914,533
Farm services	888,206	813,612	1,701,818	24,630,395
Ag. chemicals & sprays	207,589	59,232	266,821	3,858,857
Fertilizer	388,748	211,665	600,413	6,957,661
Interest	232,796	339,150	571,946	8,365,499
Taxes (property & real estate)	88,173	111,057	199,230	3,927,991
Labor	482,642	314,677	797,319	10,224,049
Fuels & lubricants	195,439	170,180	365,619	4,450,295
Farm supplies	84,663	102,080	186,743	2,249,336
Building & fencing	83,588	168,578	252,166	2,226,172
Farm & land improvements	29,248	30,608	59,856	943,058
Total farm machinery	430,699	472,884	903,583	11,501,269
Seeds	158,548	65,464	224,012	3,692,164
Trucks & autos	129,444	111,155	240,599	2,058,496
Other unallocated expenses	22,344	31,480	53,824	1,754,751



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### **In this report...**

Kentucky experienced a modest decline in the financial conditions of farm operators during 1988, yet overall, they were in a stronger financial position than for all U.S. farms, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Kentucky Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Tennessee

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Tennessee experienced a modest deterioration in the overall financial condition of farm operators during 1988. An estimated 39 percent of farms were in a favorable financial position at the end of 1988, down from 46 percent in 1987, but slightly higher than in 1986. The share of farms in a vulnerable financial position increased by 2 percentage points since 1987, while remaining well below the 1986 estimate of 11 percent.

On average, Tennessee farms remained much smaller in terms of volume of farm business than any others in the Appalachia region. They had the lowest gross cash farm income, operating expenses, and net cash farm income. When compared to other States in the region, they also had the highest proportion of farms with negative net cash farm income. They continued, however, to have the highest nonfarm earnings in the region at \$29,000.

Despite a \$16,000 decline in average net worth, there were signs of improvement for farm operator balance sheets. The average debt/asset ratio dropped from 0.10 at the end of 1987 to 0.08.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Tennessee farm financial position

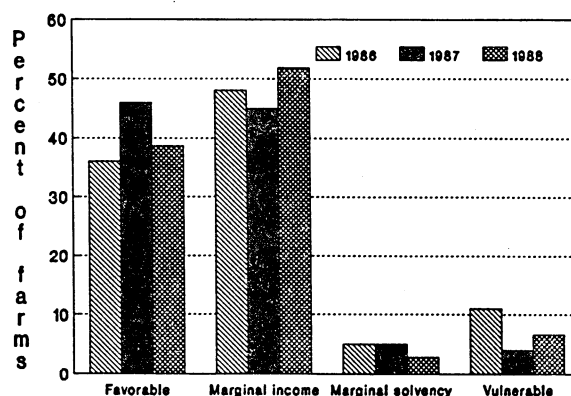


Table 1-- Financial performance of Appalachian States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Kentucky	50	40	4	6
Tennessee	39	52	3	6
Virginia and West Virginia	44	52	3	1
Appalachia	45	46	4	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	VA, WV	KY	TN	Appalachia	U.S.
			Acres per farm		
Acres operated 1/	210	150	120	160	470
			Dollars per farm		
Crop sales	10,700	9,200	6,900	15,500	26,200
+ Net CCC loans	0	-600	100	-200	-900
+ Livestock sales	17,100	11,200	7,900	18,100	38,100
+ Other farm income	2,900	2,500	1,200	3,100	9,000
= Gross cash farm income	30,700	22,300	16,100	36,500	72,400
- Total operating expenses	26,900	20,300	15,400	27,500	55,000
= Net cash farm income	3,800	2,000	700	9,000	17,400
Nonfarm income	27,500	25,200	29,000	26,300	28,900
Net worth	273,600	156,000	161,600	189,300	311,300
			Ratio		
Debt/asset	0.07	0.16	0.08	0.11	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Tennessee farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	39	52	3	6	100
Economic class:					
Sales above \$250,000	77	d	14	d	100
Sales \$40,000-\$250,000	55	15	28	2	100
Sales below \$40,000	37	55	d	d	100
Type of farm:					
Tobacco	49	36	d	d	100
Other crops	56	36	d	d	100
Beef, hogs, sheep	33	62	2	3	100
Other livestock and poultry	28	46	8	18	100
			Acres per farm		
Operating:					
Acres owned	110	80	110	30	90
Acres operated	140	100	270	40	120
			Years		
Operator age	60	53	37	48	55
			Dollars per farm		
Financial:					
Crop sales	14,300	1,600	15,800	2,200	6,900
+ Net CCC loans	200	-100	d	d	100
+ Livestock sales	8,500	4,800	69,800	2,000	7,900
+ Other farm income	1,700	600	d	d	1,200
= Gross cash farm income	24,700	6,900	93,900	4,600	16,100
- Cash operating expenses	16,400	12,200	76,100	8,900	15,400
= Net cash farm income	8,300	-5,300	17,800	-4,300	700
Nonfarm income	32,600	26,900	d	31,200	29,000
Total assets	182,700	183,600	184,800	81,400	176,500
Total debt	6,100	11,600	125,900	44,600	14,900
			Ratio		
Ratios:					
Debt/asset	0.03	0.06	0.68	0.55	0.08
Return on assets	.04	-.02	.09	-.01	.01
Cash expenses/gross income	.66	1.77	.81	1.95	.96
Interest/gross income	.02	.18	.10	.56	.08

d = Data insufficient for disclosure.

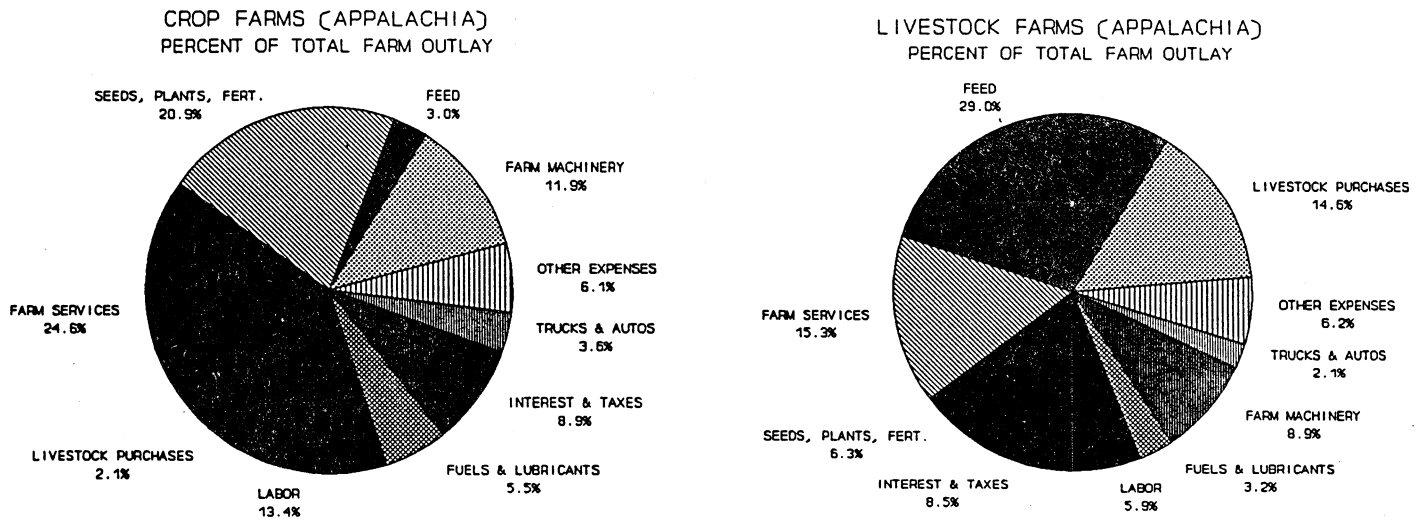
The share of farms in a favorable financial position ranged from 77 percent for farms with sales above \$250,000 to only 37 percent of farms with gross sales under \$40,000. Farms in the two largest economic classes were more likely to have high debt than were smaller farms, while farms in the smallest economic class were more inclined to have negative net cash farm income. These small farms are normally regarded as part-time farming operations that are more dependent on off-farm sources of income.

Producers of livestock products other than beef, hogs, or sheep had the greatest financial difficulties when compared with other farm types. They had the lowest percentage of farms in a favorable financial position and the highest percentage of vulnerable farms. Farms that specialized in the production of crops other than tobacco had the highest proportion categorized as favorable among farm types in 1988.

The average Tennessee farm operated 120 acres in 1988, down 30 acres from last year. The farm operator owned 3 out of 4 acres operated. The average age of farm operators in Tennessee was 55 years. Acres operated, land tenure, and operator age showed considerable variation across financial categories. Marginally solvent farms were run by the youngest farms operators, were largest in terms of acreage, and rented the largest share of total land operated. Favorable farm operators, who average 60 years, were the oldest farmers.

Marginally solvent farms had the highest net cash farm income, return on assets, and debt/asset ratio when compared to farm in other financial categories. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. The cash deficit of both marginal income and vulnerable farms was more than offset by nonfarm earnings.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Appalachian region totaled \$8.9 billion in 1988, up 17 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increases in all major regional expenses categories were only offset slightly by a slight decline in livestock and poultry expenses.

Expenditures for livestock farms at \$5.3 billion were 60 percent of the total regional expenses compared to 58 percent in 1987. Major expenses items on livestock farms were feed (29 percent), farm services and livestock and poultry (both 15 percent). Crop farm expenditures total \$3.6 billion, 40 percent of the regional expenses. Over one-half of the crop farms expenses were for farm services (25 percent), labor (13 percent), and farm machinery (12 percent).

Table 4--Selected production expenditures by type of farm, 1988

Appalachia (KY, NC, TN, VA AND WV)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,605,132	5,326,957	8,932,089	118,361,751
Livestock & poultry	75,652	777,688	853,340	13,607,228
Feed	107,352	1,547,446	1,654,798	17,914,533
Farm services	888,206	813,612	1,701,818	24,630,395
Ag. chemicals & sprays	207,589	59,232	266,821	3,858,857
Fertilizer	388,748	211,665	600,413	6,957,661
Interest	232,796	339,150	571,946	8,365,499
Taxes (property & real estate)	88,173	111,057	199,230	3,927,991
Labor	482,642	314,677	797,319	10,224,049
Fuels & lubricants	195,439	170,180	365,619	4,450,295
Farm supplies	84,663	102,080	186,743	2,249,336
Building & fencing	83,588	168,578	252,166	2,226,172
Farm & land improvements	29,248	30,608	59,856	943,058
Total farm machinery	430,699	472,884	903,583	11,501,269
Seeds	158,548	65,464	224,012	3,692,164
Trucks & autos	129,444	111,155	240,599	2,058,496
Other unallocated expenses	22,344	31,480	53,824	1,754,751

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### **In this report...**

Tennessee experienced a modest deterioration in the overall financial condition of farm operators during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Tennessee Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Virginia and West Virginia

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, there was a lower percentage of farms with extreme financial difficulties in Virginia and West Virginia than in any other Appalachian State. An estimated 44 percent of farms were considered in a favorable financial position. This was roughly similar to the share estimated for either the Appalachian region or for all U.S. farms. At the opposite extreme, only 1 percent of farms were regarded as financially vulnerable due to a combination of negative net income and high debt. This was the lowest percentage in the region and 6 points below the value for all U.S. farms.

The average net cash farm income of \$3,800 was second highest in the region, but well below the U.S. average of \$17,400. Also when compared to all farms, there was a greater share of farms in these States with negative income, although they had considerably less farms with high debt. The average debt/asset ratio of 0.07 was the lowest in the region and nearly half the value for all farms. In further support of their strong solvency position, farms in Virginia and West Virginia had the highest average net worth in the region.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--VA and WV farm financial position

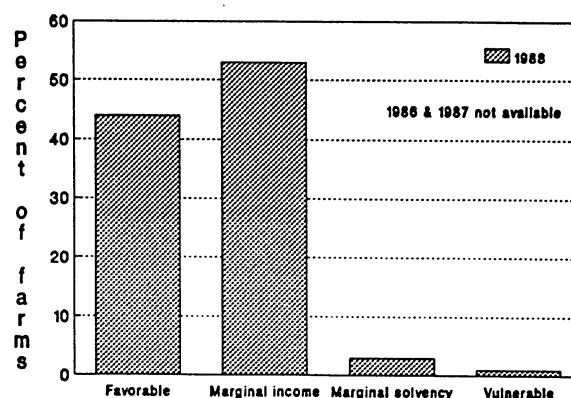


Table 1-- Financial performance of Appalachian States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Kentucky	50	40	4	6
Tennessee	39	52	3	6
Virginia and West Virginia	44	52	3	1
Appalachia	45	46	4	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	VA, WV	KY	TN	Appalachia	U.S.
			<u>Acres per farm</u>		
Acres operated 1/	210	150	120	160	470
			<u>Dollars per farm</u>		
Crop sales	10,700	9,200	6,900	15,500	26,200
+ Net CCC loans	0	-600	100	-200	-900
+ Livestock sales	17,100	11,200	7,900	18,100	38,100
+ Other farm income	2,900	2,500	1,200	3,100	9,000
= Gross cash farm income	30,700	22,300	16,100	36,500	72,400
- Total operating expenses	26,900	20,300	15,400	27,500	55,000
= Net cash farm income	3,800	2,000	700	9,000	17,400
Nonfarm income	27,500	25,200	29,000	26,300	28,900
Net worth	273,600	156,000	161,600	189,300	311,300
			<u>Ratio</u>		
Debt/asset	0.07	0.16	0.08	0.11	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Virginia and West Virginia farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	44	52	3	1	100
Economic class:					
Sales above \$250,000	75	17	8	0	100
Sales \$40,000-\$250,000	57	24	d	d	100
Sales below \$40,000	41	57	0	2	100
Type of farm:					
Tobacco	49	40	d	d	100
Other crops	34	54	12	0	100
Beef, hogs, sheep	45	54	1	0	100
Other livestock and poultry	41	55	4	0	100
			Acres per farm		
Operating:					
Acres owned	170	100	160	130	130
Acres operated	270	150	680	180	210
			Years		
Operator age	57	53	46	42	55
			Dollars per farm		
Financial:					
Crop sales	12,500	4,000	120,200	8,000	10,700
+ Net CCC loans	0	100	d	d	0
+ Livestock sales	26,600	5,800	87,300	13,600	17,100
+ Other farm income	4,400	1,000	d	d	2,900
= Gross cash farm income	43,500	10,900	223,600	28,000	30,700
- Cash operating expenses	28,200	21,300	118,100	33,800	26,900
= Net cash farm income	15,300	-10,400	105,500	-5,800	3,800
Nonfarm income	23,300	31,700	19,500	12,400	27,500
Total assets	337,200	257,600	375,400	151,600	294,400
Total debt	14,900	13,800	238,100	96,800	20,800
			Ratio		
Ratios:					
Debt/asset	0.04	0.05	0.63	0.64	0.07
Return on assets	.02	-.03	.21	-.31	-.01
Cash expenses/gross income	.65	1.96	.53	1.21	.88
Interest/gross income	.03	.09	.09	.17	.05

d = Data insufficient for disclosure.

Financial performance was directly related with farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 75 percent and fell to 41 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms, however these farms are normally regarded as part-time operations that are more dependent on off farms sources of income.

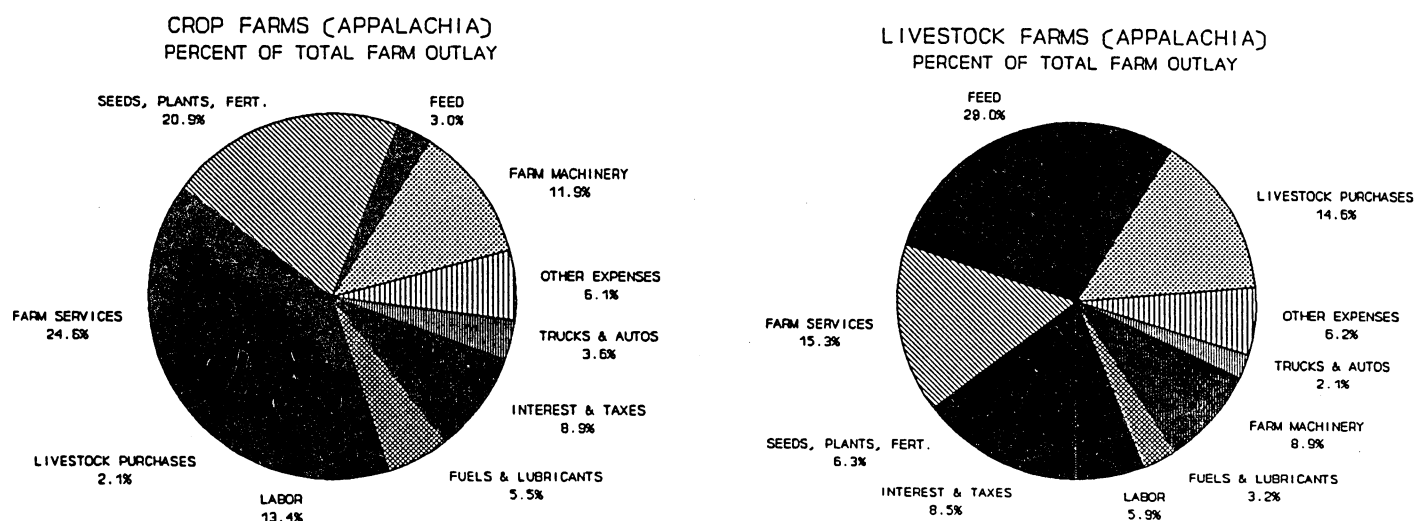
Tobacco farms had the highest proportion in a favorable financial position when compared with other farm types. Farms that specialized in the production of crops other than tobacco had the fewest vulnerable farms when compared with all other type of farm categories.

Farms in Virginia and West Virginia average 210 acres which was the second largest acreage in the region.

Farm operators owned 62 percent of total acres operated. The average age of farms operators in these States was 55 years. Acres operated, land tenure, and operator age varied considerably by financial status. Vulnerable farms had the youngest farm operators and owned the largest proportion of land operated. Farms in the marginal solvency had three times the amount of acres operated on average for these States and rented 3 out of four of these acres. Favorable farms had the oldest farm operators at age 57 years.

Marginally solvent farms had the highest net cash farm income and return on assets with an average debt/asset ratio of 0.63. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficits of both marginal income and vulnerable farms were more than offset by nonfarm earnings of their households.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Appalachian region totaled \$8.9 billion in 1988, up 17 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increases in all major regional expenses categories were only offset slightly by a slight decline in livestock and poultry expenses.

Expenditures for livestock farms at \$5.3 billion were 60 percent of the total regional expenses compared to 58 percent in 1987. Major expenses items on livestock farms were feed (29 percent), farm services and livestock and poultry (both 15 percent). Crop farm expenditures total \$3.6 billion, 40 percent of the regional expenses. Over one-half of the crop farms expenses were for farm services (25 percent), labor (13 percent), and farm machinery (12 percent).

Table 4--Selected production expenditures by type of farm, 1988

Appalachia (KY, NC, TN, VA AND WV)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
			1,000 Dollars	
Total farm production expenditures	3,605,132	5,326,957	8,932,089	118,361,751
Livestock & poultry	75,652	777,688	853,340	13,607,228
Feed	107,352	1,547,446	1,654,798	17,914,533
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Taxes (property & real estate)	88,173	111,057	199,230	3,927,991
Labor	482,642	314,677	797,319	10,224,049
Fuels & lubricants	195,439	170,180	365,619	4,450,295
Farm supplies	84,663	102,080	186,743	2,249,336
Building & fencing	83,588	168,578	252,166	2,226,172
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Seeds	158,548	65,464	224,012	3,692,164
Trucks & autos	129,444	111,155	240,599	2,058,496
Other unallocated expenses	22,344	31,480	53,824	1,754,751



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### **In this report...**

Overall, there were fewer farms with extreme financial difficulties in Virginia and West Virginia than in any other Appalachian State, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Statistics Services located in Virginia and West Virginia as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

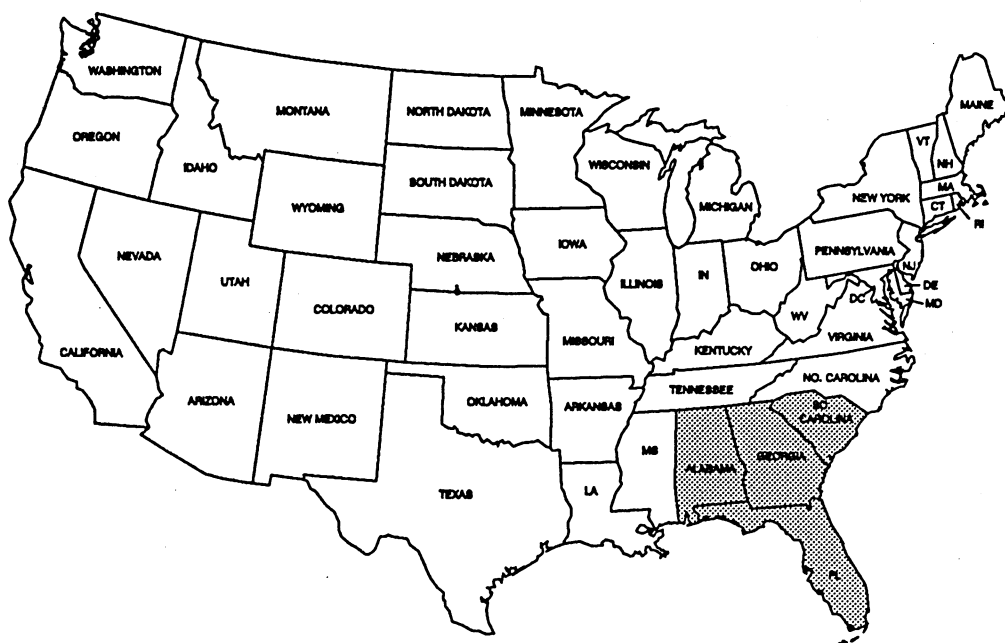
NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

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# SOUTHEAST



The Southeast was estimated to have 146,500 farm operations which represented 8 percent of all U.S. farms in 1988. Seventy percent of farms were considered livestock operations, with the majority of these farms specializing in the production of beef, hogs, or sheep. The most common crop production specialties were other field crops and vegetables, and fruits. Over 80 percent of farms had gross sales below \$40,000 making the Southeast one of the few regions with such a dense population of what are considered to be small farming operations. In terms of acreage operated, a similar proportion of farms were under 250 acres in size. Farmers owned over two-thirds of the land they farmed in 1988. An estimated 5 percent were full tenants and the remaining 27 percent were partial owners of total land operated. The majority (92 percent) of farms were organized as individual operations, 5 percent were partnerships, and the remainder were either cooperatives or corporations.

Twenty-six percent of total land operated in the Southeast was devoted to crop land, 27 percent to pasture, 6 percent was idle under government programs, and the remainder went for summer fallow, woodlands or some other use. Farm operators in the Southeast accounted for 4 percent of U.S. livestock sales and 10 percent of crop sales in 1988. The highest ranking crops, in terms of gross sales, were nursery and greenhouse items (37 percent), fruits (21 percent), and soybeans and peanuts (19 percent). Milk and dairy products, cattle, and hogs accounted for the largest proportions of livestock sales at 36, 33, and 12 percent respectively. One in five farms participated in Government programs which represented 2 percent of U.S. payments. The typical farm operator was 55 years old and averaged working 22 hours per week on the farm. Only 45 percent of all farm operators in the Southeast considered farming to be their primary occupation. Ninety percent of farmers and their households reported earning nonfarm income which represented 9 percent of U.S. farm operator off-farm earnings.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Alabama

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Compared with all U.S. farms, a lower percentage of Alabama farm operators had high debt, but a greater share had negative net cash farm income in 1988. An estimated 39 percent of farms were in a favorable financial position having positive net income and relatively low debt. At the opposite extreme, 6 percent of farms were considered to be in a vulnerable financial position. This was slightly higher than the percentage of vulnerable farms for the Southeast region, but below the U.S. value of 7 percent. The majority of Alabama's farm operators ended 1988 with negative net cash income and low debt.

Alabama had the lowest average gross cash farm income and net farm income when compared with other States in the Southeast. This likely reflect a greater concentration of smaller sized farms in Alabama, particularly since the average net worth was also below other States in the region. The average debt/asset ratio of 0.09 was equal to the regional average and 4 percentage points below the U.S. average.

Figure 1--Alabama farm financial position

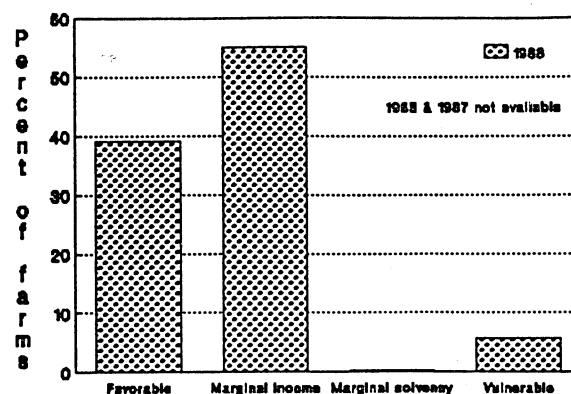


Table 1--Financial Performance of Southeast States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Alabama	39	55	0	6
Florida	40	52	4	4
Georgia	38	48	8	6
Southeast	40	51	4	5
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Table 2--Selected average operating and financial characteristics, 1988

	GA	AL	FL	Southeast	U.S.
	Acres per farm				
Acres operated 1/	310	190	220	230	470
	Dollars per farm				
Crop sales	25,700	6,100	81,200	28,300	26,200
+ Net CCC loans	200	400	-1,800	-100	-900
+ Livestock sales	57,300	26,800	25,800	33,200	38,100
+ Other farm income	9,700	3,100	4,600	5,400	9,000
= Gross cash farm income	92,900	36,400	109,800	66,800	72,400
- Total operating expenses	57,500	21,700	94,600	47,400	55,000
= Net cash farm income	35,400	14,700	15,200	19,400	17,400
Nonfarm income	39,600	20,900	47,000	32,400	28,900
Net worth	288,900	186,200	544,700	287,800	311,300
	Ratio				
Debt/asset	0.14	0.09	0.06	0.09	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Alabama farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	39	55	0	6	100
Economic class:					
Sales above \$250,000	68	d	0	d	100
Sales \$40,000-\$250,000	55	40	0	5	100
Sales below \$40,000	37	57	0	6	100
Type of farm:					
Vegetable, fruit, nursery	71	29	0	0	100
Other crops	46	40	0	14	100
Beef, hog, and sheep	34	61	0	5	100
Other livestock and poultry	77	23	0	0	100
Operating:			Acres per farm		
Acres owned	170	110	0	170	140
Acres operated	230	140	0	380	190
Operator age	62	55	Years	49	57
Financial:			Dollars per farm		
Crop sales	10,400	2,000	0	4,400	6,100
+ Net CCC loans	800	0	0	d	400
+ Livestock sales	45,900	7,300	0	10,700	26,800
+ Other farm income	5,700	900	0	d	3,100
= Gross cash farm income	62,800	10,200	0	19,300	36,400
- Cash operating expenses	25,000	16,500	0	29,200	21,700
= Net cash farm income	37,800	-6,300	0	-9,900	14,700
Nonfarm income	14,400	23,900	0	34,300	20,900
Total assets	197,800	202,400	0	252,200	205,000
Total debt	8,700	10,600	0	144,300	18,800
Ratios:			Ratio		
Debt/asset	0.04	0.05	0	0.57	0.09
Return on assets	.06	-.01	0	-.02	.02
Cash expenses/gross income	.40	1.62	0	1.51	.60
Interest/gross income	.01	.08	0	.29	.04

d = Data insufficient for disclosure.

Financial performance was related to farm size with the share of favorable farms ranging from 68 percent for farms with sales above \$250,000 to 37 percent for farm in the smallest economic class. Farms with sales below \$40,000 were more likely to have negative net cash income than were larger farms. These farms are normally considered to be part-time operations that are more dependent on off-farm sources of income.

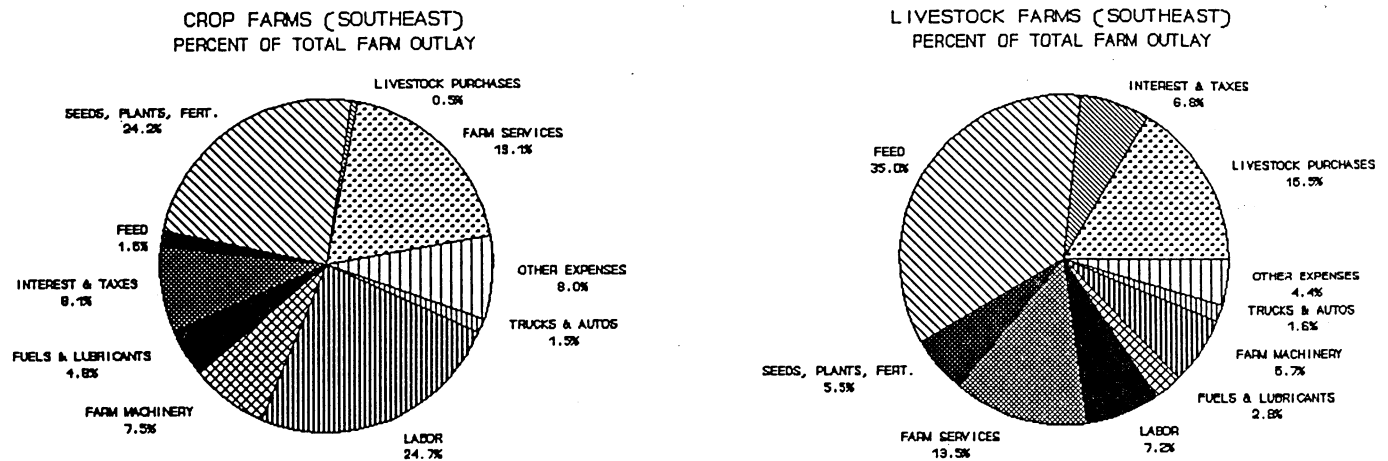
Producers of livestock other than beef, hogs, or sheep and those that specialized in the production of vegetables, fruits, and nursery or greenhouse items both had over 70 percent of farms categorized in a favorable financial position at the end of 1988. Farms deriving the majority of their income from crops other than vegetables, fruits, nursery and greenhouse products had the highest proportion of vulnerable

farms. Beef, hog, and sheep farms had the greatest percentage with negative net cash farm income and the lowest share of favorable farms.

Alabama farms average 190 acres which was lowest in the region in 1988. About one in four acres were rented. Vulnerable farms operated 380 acres on average which was the highest among financial categories, while the smallest acreage was for farms in the marginal income position. Farm operator age ranged from 49 years for vulnerable operators to 69 years for operators of favorable farms. The average for Alabama in 1988 was 57 years.

On average, the cash deficits of both marginal income and vulnerable farms were more than offset by nonfarm earnings of their households.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southeast region totaled \$7.8 billion in 1988, up 2.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional outlays for livestock and poultry, labor, fertilizer, agricultural chemicals and sprays, fuels, farm supplies, and farm and land improvements were partially offset by expense decreases in major items.

Expenditures by livestock farms at \$4.0 billion were 51 percent of the total regional expense compared to 57 percent in 1987. Nearly two-thirds of the livestock farm expenses were for feed (35 percent), livestock & poultry (17 percent), and farm services (13 percent). Crop farm expenditures totaled \$3.8 billion, 49 percent of the regional expenses. Major expenses on crop farms were labor (25 percent), combined fertilizer/agricultural chemicals/seed (24 percent), and farm services (19 percent).

Table 4--Selected production expenditures by type of farm, 1988

Southeast (AL, FL, GA AND SC)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,780,249	3,976,019	7,756,268	118,361,751
Livestock & poultry	18,876	658,334	677,210	13,607,228
Feed	61,117	1,390,252	1,451,369	17,914,533
Farm services	719,895	535,523	1,255,418	24,630,395
Ag. chemicals & sprays	306,461	34,901	341,362	3,858,857
Fertilizer	374,145	152,748	526,893	6,957,661
Interest	210,401	185,501	395,902	8,365,499
Taxes (property & real estate)	95,062	83,828	178,890	3,927,991
Labor	934,718	286,665	1,221,383	10,224,049
Fuels & lubricants	179,213	111,475	290,688	4,450,295
Farm supplies	137,780	51,011	188,791	2,249,336
Building & fencing	65,481	93,291	158,772	2,226,172
Farm & land improvements	52,394	15,473	67,867	943,058
Total farm machinery	284,558	268,363	552,921	11,501,269
Seeds	235,286	32,142	267,428	3,692,164
Trucks & autos	58,060	63,113	121,173	2,058,496
Other unallocated expenses	46,803	13,398	60,201	1,754,751

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### **In this report...**

Compared with all U.S. farms, a lower percentage of Alabama farm operators had high debt, but a greater share had negative net cash farm income in 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Alabama Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Florida

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, financial conditions of Florida farm operators improved during 1988. An estimated 40 percent of farms were in a favorable financial position, up 2 percentage points from last year, although 4 points below the U.S. average. The share of vulnerable farms declined from 6 to 4 percent. This was the lowest percentage in the region and 3 points below the proportion of U.S. vulnerable farms.

The increase in average crop sales was enough to override lower livestock sales and higher operating expenses so that average net cash farm income of Florida farms increased by \$5,500 since 1987. Nonfarm income earned by farm households increased by nearly \$20,000. As a result Florida had the highest average nonfarm income in the region and exceeded the U.S. average by \$18,100.

Improvements were also evident in farm operator balance sheets. The average debt/asset ratio dropped from 0.11 a year ago to 0.06 at then end of 1988. This was the lowest value in the region and half the U.S. average. In addition, average net worth increased by over \$100,000.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Figure 1--Florida farm financial position

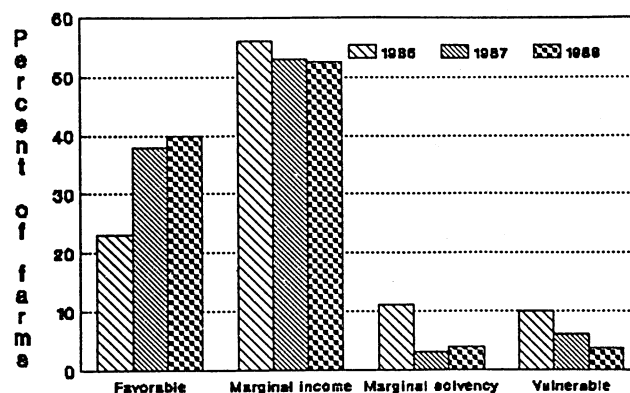


Table 1--Financial Performance of Southeast States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Alabama	39	55	0	6
Florida	40	52	4	4
Georgia	38	48	8	6
Southeast	40	51	4	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	GA	AL	FL	Southeast	U.S.
	Acres per farm				
Acres operated 1/	310	190	220	230	470
	Dollars per farm				
Crop sales	25,700	6,100	81,200	28,300	26,200
+ Net CCC loans	200	400	-1,800	-100	-900
+ Livestock sales	57,300	26,800	25,800	33,200	38,100
+ Other farm income	9,700	3,100	4,600	5,400	9,000
= Gross cash farm income	92,900	36,400	109,800	66,800	72,400
- Total operating expenses	57,500	21,700	94,600	47,400	55,000
= Net cash farm income	35,400	14,700	15,200	19,400	17,400
Nonfarm income	39,600	20,900	47,000	32,400	28,900
Net worth	288,900	186,200	544,700	287,800	311,300
	Ratio				
Debt/asset	0.14	0.09	0.06	0.09	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Florida farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	40	52	4	4	100
Economic class:					
Sales above \$250,000	70	16	d	d	100
Sales \$40,000-\$250,000	74	20	d	d	100
Sales below \$40,000	30	63	2	5	100
Type of farm:					
Vegetable, fruit, nursery	54	38	3	5	100
Other crops	47	44	d	d	100
Dairy	33	63	d	d	100
Other livestock and poultry	19	63	d	d	100
Operating:			Acres per farm		
Acres owned	330	70	50	50	170
Acres operated	420	90	60	110	220
Operator age	55	56	Years	44	55
Financial:			Dollars per farm		
Crop sales	169,200	18,800	105,000	29,600	81,200
+ Net CCC loans	-100	-3,300	d	d	-1,800
+ Livestock sales	38,800	5,700	153,300	62,600	25,800
+ Other farm income	5,700	3,400	d	d	4,600
= Gross cash farm income	213,600	24,700	260,200	103,000	109,800
- Cash operating expenses	151,100	41,800	198,000	151,000	94,600
= Net cash farm income	62,500	-17,100	62,200	-47,900	15,200
Nonfarm income	43,000	52,700	13,100	38,500	47,000
Total assets	774,300	481,200	229,100	234,000	578,100
Total debt	35,000	17,500	125,900	144,300	33,500
Ratios:			Ratio		
Debt/asset	0.05	0.04	0.55	0.62	0.06
Return on assets	.06	-.04	.17	.02	.02
Cash expenses/gross income	.71	1.69	.76	1.47	.86
Interest/gross income	.02	.08	.05	.10	.03

d = Data insufficient for disclosure.

Farms with gross sales of \$40,000 - \$250,000 had the largest share of favorable farms at 74 percent followed by farms in the largest economic class at 70 percent. Farms with sales below \$40,000 had less than half as many favorable farms as did the larger farms. These small farms were more likely to have negative net cash farm income, however these farms are normally regarded as part-time farming operations that are more dependent on off farm sources of income.

Farms that specialized in the production of vegetables, fruits, nursery or greenhouse products had the largest percentage of favorable farms when compared to all other farm types. Crop farms, in general, were in a stronger financial position at the end of 1988 than were livestock farms. Over sixty percent of livestock farms ended the year with a negative net cash farm income.

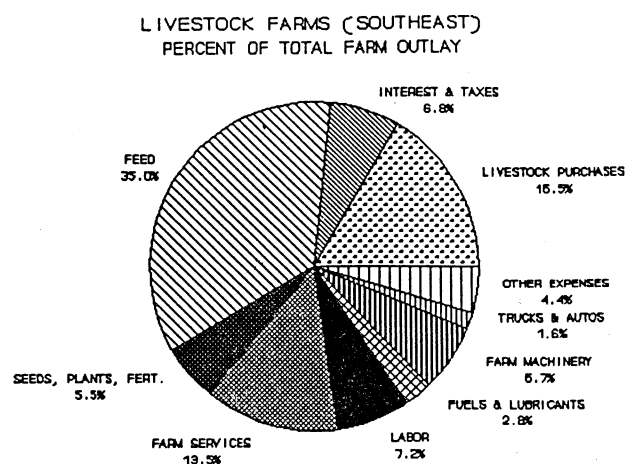
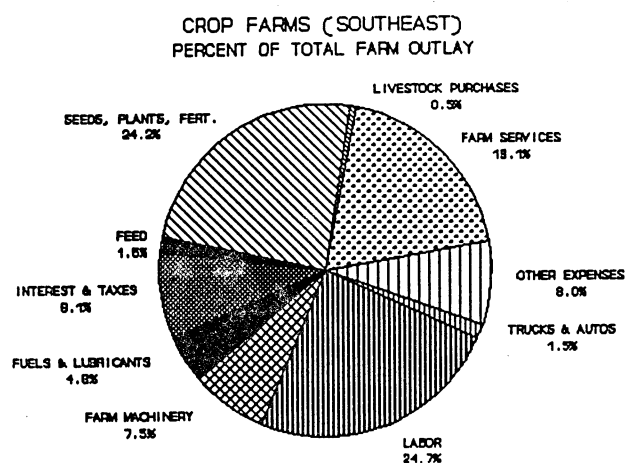
Florida's farms average 220 acres, 10 less than last year. Of these, more than 3 out of 4 acres were

owned by the farm operator. The average age of Florida farm operators was 55 years. Operator age varied by financial position ranging from 44 years for vulnerable farms to 56 years for farms in the marginal income category. Favorable farms had the largest acreage at 420 acres which was almost twice the State average. The lowest amount of land operated, 60 acres, was by marginally solvent farms.

The average net cash income of favorable and marginally solvent farms was nearly identical at \$62,000. Farms in the marginal solvency category had an average debt/asset ratio that was 10 times greater than favorable farms and derived a larger share of their gross cash income from livestock sales. Farms in the marginal income category had the highest average nonfarm income at \$52,700 which more than offset their farms losses. Vulnerable farms, given their nonfarm income of \$38,500 could not completely compensate for their \$47,900 cash deficit from the farm business.



Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southeast region totaled \$7.8 billion in 1988, up 2.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional outlays for livestock and poultry, labor, fertilizer, agricultural chemicals and sprays, fuels, farm supplies, and farm and land improvements were partially offset by expense decreases in major items.

Expenditures by livestock farms at \$4.0 billion were 51 percent of the total regional expense compared to 57 percent in 1987. Nearly two-thirds of the livestock farm expenses were for feed (35 percent), livestock & poultry (17 percent), and farm services (13 percent). Crop farm expenditures totaled \$3.8 billion, 49 percent of the regional expenses. Major expenses on crop farms were labor (25 percent), combined fertilizer/agricultural chemicals/seed (24 percent), and farm services (19 percent).

Table 4--Selected production expenditures by type of farm, 1988

Southeast (AL, FL, GA AND SC)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,780,249	3,976,019	7,756,268	118,361,751
Livestock & poultry	18,876	658,334	677,210	13,607,228
Feed	61,117	1,390,252	1,451,369	17,914,533
Farm services	719,895	535,523	1,255,418	24,630,395
Ag. chemicals & sprays	306,461	34,901	341,362	3,858,857
Fertilizer	374,145	152,748	526,893	6,957,661
Interest	210,401	185,501	395,902	8,365,499
Taxes (property & real estate)	95,062	83,828	178,890	3,927,991
Labor	934,718	286,665	1,221,383	10,224,049
Fuels & lubricants	179,213	111,475	290,688	4,450,295
Farm supplies	137,780	51,011	188,791	2,249,336
Building & fencing	65,481	93,291	158,772	2,226,172
Farm & land improvements	52,394	15,473	67,867	943,058
Total farm machinery	284,558	268,363	552,921	11,501,269
Seeds	235,286	32,142	267,428	3,692,164
Trucks & autos	58,060	63,113	121,173	2,058,496
Other unallocated expenses	46,803	13,398	60,201	1,754,751

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### **In this report...**

Overall, financial conditions of Florida farm operators improved during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Florida Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Georgia

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Average net cash farm income of Georgia farm operators increased by \$12,800 over 1987 to \$35,400 which was highest in the region and nearly twice the U.S. average in 1988. An estimated 38 percent of farms were in a favorable financial position, up slightly from last year, although 8 points below the U.S. value. The share of vulnerable farms increased from 5 to 6 percent.

Despite higher average net cash farm income, the share of Georgia farms with positive net cash farm income was identical to 1987 at 46 percent. Nonfarm income earned by farm households rose to \$39,600 which was over \$10,000 higher than the U.S. average.

Improvements were also evident in farm operators balance sheets. The average debt/asset ratio dropped from 0.16 in 1987 to 0.14 in 1988. It was still the highest ratio in the Southeast region, but only slightly higher than the U.S. average. In addition, average net worth rose by \$10,000.

Figure 1--Georgia farm financial position

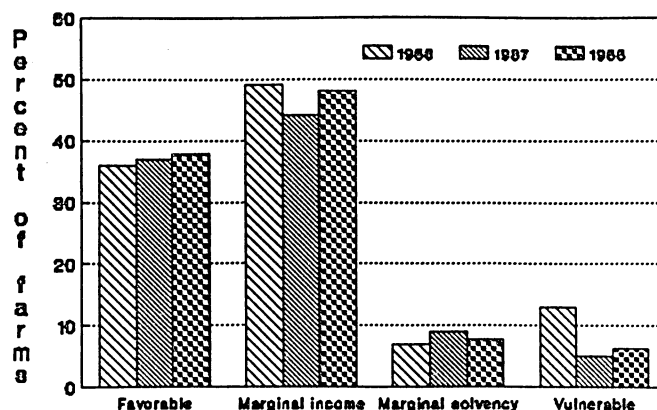


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	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Alabama	39	55	0	6
Florida	40	52	4	4
Georgia	38	48	8	6
Southeast	40	51	4	5
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Table 2--Selected average operating and financial characteristics, 1988

	GA	AL	FL	Southeast	U.S.
	Acres per farm				
Acres operated 1/	310	190	220	230	470
	Dollars per farm				
Crop sales	25,700	6,100	81,200	28,300	26,200
+ Net CCC loans	200	400	-1,800	-100	-900
+ Livestock sales	57,300	26,800	25,800	33,200	38,100
+ Other farm income	9,700	3,100	4,600	5,400	9,000
= Gross cash farm income	92,900	36,400	109,800	66,800	72,400
- Total operating expenses	57,500	21,700	94,600	47,400	55,000
= Net cash farm income	35,400	14,700	15,200	19,400	17,400
Nonfarm income	39,600	20,900	47,000	32,400	28,900
Net worth	288,900	186,200	544,700	287,800	311,300
	Ratio				
Debt/asset	0.14	0.09	0.06	0.09	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Georgia farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	38	48	8	6	100
Economic class:					
Sales above \$250,000	69	6	19	6	100
Sales \$40,000-\$250,000	48	24	26	2	100
Sales below \$40,000	34	57	3	6	100
Type of farm:					
Vegetable, fruit, nursery	69	29	d	d	100
Other crops	55	24	12	9	100
Beef, hog, sheep	22	72	2	4	100
Other livestock and poultry	45	26	29	0	100
Operating:			Acres per farm		
Acres owned	280	250	120	100	240
Acres operated	330	300	270	220	310
			Years		
Operator age	54	55	40	44	53
Financial:			Dollars per farm		
Crop sales	37,300	9,000	59,900	36,700	25,700
+ Net CCC loans	100	0	1,400	1,100	200
+ Livestock sales	101,600	7,100	168,800	12,000	57,300
+ Other farm income	17,400	1,900	22,600	4,500	9,700
= Gross cash farm income	156,400	18,000	252,700	54,300	92,900
- Cash operating expenses	71,500	27,900	152,900	67,400	57,500
= Net cash farm income	84,900	-9,900	99,800	-13,100	35,400
Nonfarm income	23,700	59,100	14,700	17,700	39,600
Total assets	392,500	321,900	275,500	142,900	334,900
Total debt	39,900	24,000	157,600	103,500	46,000
Ratios:			Ratio		
Debt/asset	0.10	0.07	0.57	0.72	0.14
Return on assets	.06	-.02	.13	-.07	.03
Cash expenses/gross income	.46	1.55	.61	1.24	.62
Interest/gross income	.03	.12	.05	.17	.05

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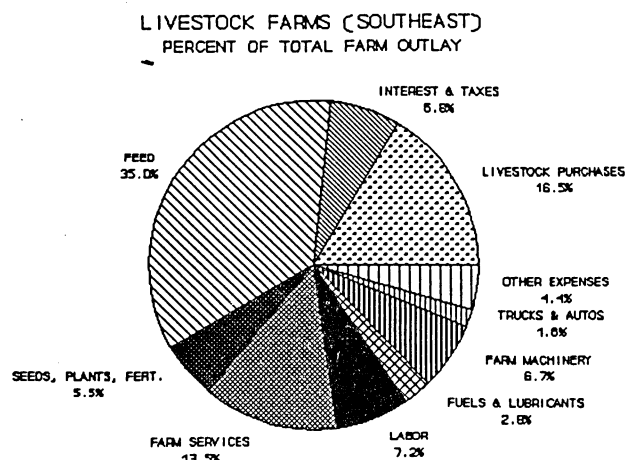
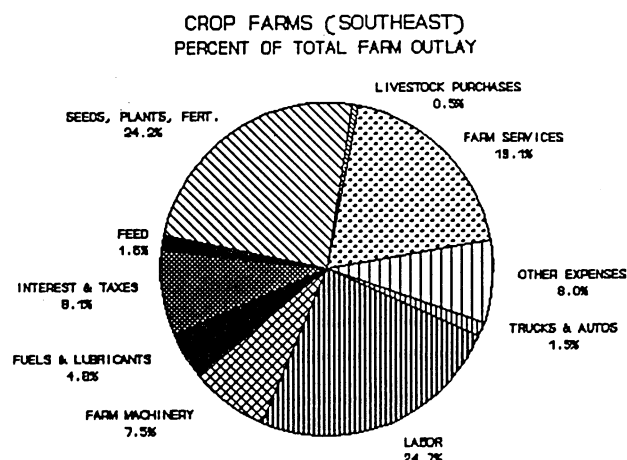
Financial performance varied directly with farm size as measured by gross sales. The share of farms in a favorable financial position ranged from 69 percent for farms with sales above \$250,000 to only 34 percent of farms with gross sales under \$40,000. Farms in the two largest economic classes were more likely to have high debt than were smaller farms, while farms in the smallest economic class were more inclined to have negative net cash farm income. These small farms are normally regarded as part-time farming operations that are more dependent on off farm sources of income.

Among farm types, the highest percentage of favorable farms were for farms that specialized in the production of vegetables, fruits, nursery or greenhouse products. Nearly three out of four beef, hog or sheep farms had negative incomes suggesting that these operations had the greatest financial difficulties in 1988 when compared with other farm types.

Georgia farms averaged 310 acres, 20 acres more than last year. Farm operators owned 77 percent of total acres operated. The average age of Georgia farm operators in 1988 was 53 years. Acres operated, land tenure, and operator age varied by financial status. Marginally solvent farms were run by the youngest operators who rented the largest portion of total land operated. The largest acreage operated was for favorable farms. The oldest operators were in the marginal income category.

Marginally solvent farms had the highest net cash farm income and return on assets when compared to farms in other financial categories. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. The cash deficit of both marginal income and vulnerable farms was offset by nonfarm earnings.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southeast region totaled \$7.8 billion in 1988, up 2.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional outlays for livestock and poultry, labor, fertilizer, agricultural chemicals and sprays, fuels, farm supplies, and farm and land improvements were partially offset by expense decreases in major items.

Expenditures by livestock farms at \$4.0 billions were 51 percent of the total regional expense compared to 57 percent in 1987. Nearly two-thirds of the livestock farm expenses were for feed (35 percent), livestock & poultry (17 percent), and farm services (13 percent). Crop farm expenditures totaled \$3.8 billion, 49 percent of the regional expenses. Major expenses on crop farms were labor (25 percent), combined fertilizer/agricultural chemicals/seed (24 percent), and farm services (19 percent).

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Southeast States

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

1988 financial conditions were largely unchanged when compared with 1987 for farms in Alabama, Florida, Georgia, and South Carolina. The percentage of farms categorized at either extreme of financial performance was equal to the 1987 values of 40 percent favorable and 5 percent vulnerable. There was a slight increase in the proportion of marginal income farms and a similarly small reduction in the share of marginally solvent farms. These adjustments reflect greater income difficulties for some farms and improved balance sheets for others.

Average net cash income of farms in the Southeast increased by \$7,600 over 1987 to \$19,400 which was nearly \$2,000 higher than the U.S. average. Despite this increase in average net incomes, there were more farms with negative net cash income at the end of 1988 than a year earlier. The average debt/asset ratio of 0.09 represents a 4 percentage point reduction from 1987. In addition there was a decline in the share of farms with high debt. Average net worth fell by nearly \$8,000 since 1987 and was below the U.S. average.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--AL, FL, GA, SC farm financial position

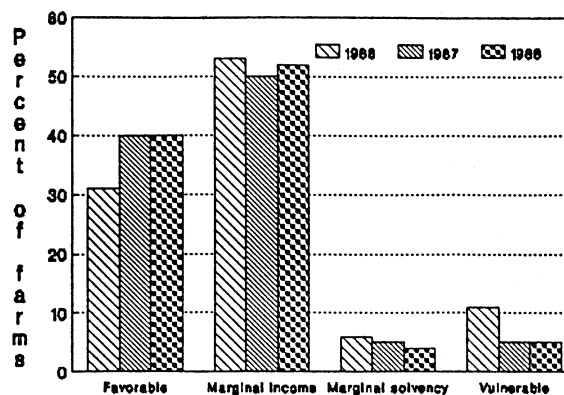


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	Acres per farm				
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Crop sales	25,700	6,100	81,200	28,300	26,200
+ Net CCC loans	200	400	-1,800	-100	-900
+ Livestock sales	57,300	26,800	25,800	33,200	38,100
+ Other farm income	9,700	3,100	4,600	5,400	9,000
= Gross cash farm income	92,900	36,400	109,800	66,800	72,400
- Total operating expenses	57,500	21,700	94,600	47,400	55,000
= Net cash farm income	35,400	14,700	15,200	19,400	17,400
Nonfarm income	39,600	20,900	47,000	32,400	28,900
Net worth	288,900	186,200	544,700	287,800	311,300
	Ratio				
Debt/asset	0.14	0.09	0.06	0.09	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Southeast farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	40	51	4	5	100
Economic class:					
Sales above \$250,000	70	11	14	5	100
Sales \$40,000-\$250,000	59	24	14	3	100
Sales below \$40,000	35	58	2	5	100
Type of farm:					
Vegetable, fruit, nursery	55	40	2	3	100
Other crops	53	32	7	8	100
Beef, hog, sheep	32	63	1	4	100
Other livestock and poultry	44	35	15	6	100
Operating:			Acres per farm		
Acres owned	230	140	120	120	170
Acres operated	290	170	290	260	230
			Years		
Operator age	57	56	42	46	55
Financial:			Dollars per farm		
Crop sales	52,200	7,400	73,100	22,000	28,300
+ Net CCC loans	300	-600	1,100	900	-100
+ Livestock sales	55,600	6,200	182,700	21,800	33,200
+ Other farm income	8,900	1,700	20,600	5,400	5,400
= Gross cash farm income	117,000	14,700	277,400	50,100	66,800
- Cash operating expenses	64,800	23,900	161,100	68,100	47,400
= Net cash farm income	52,200	-9,200	116,400	-18,000	19,400
Nonfarm income	24,400	39,800	17,200	30,000	32,400
Total assets	379,200	283,500	280,200	206,500	317,600
Total debt	25,100	14,800	161,000	129,400	29,800
Ratios:			Ratio		
Debt/asset	0.07	0.05	0.57	0.63	0.09
Return on assets	.06	-.02	.12	-.02	.02
Cash expenses/gross income	.55	1.63	.58	1.36	.71
Interest/gross income	.02	.10	.05	.16	.04

Financial performance was directly related with farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 70 percent and fell to 35 percent for farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms, however these farms are normally regarded as part-time operation that are more dependent on off farms sources of income.

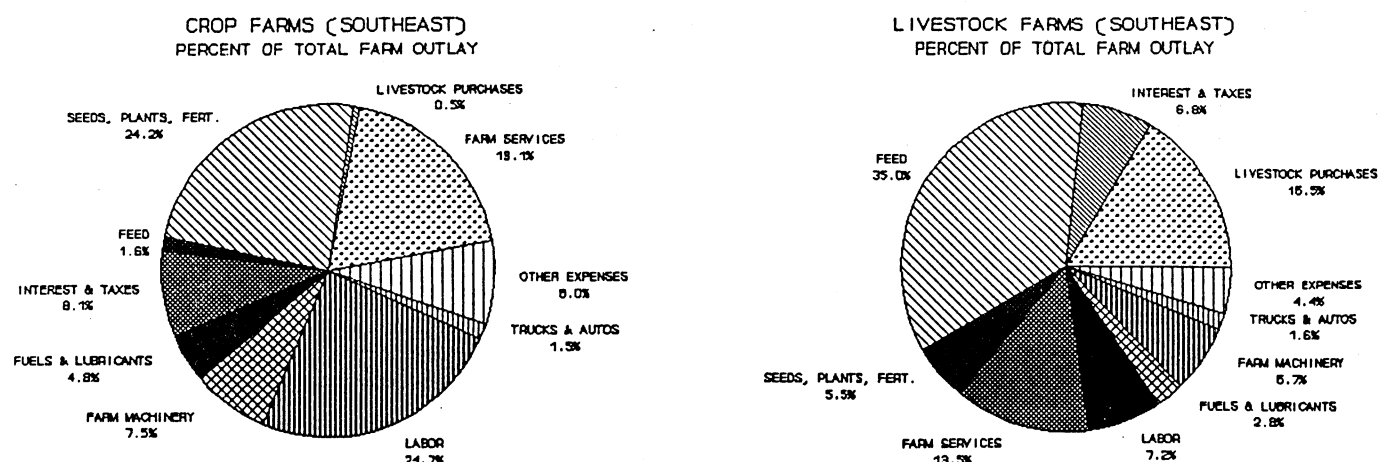
In general, crop farms (with at least half in a favorable financial position) were in a stronger financial position at the end of 1988 than were livestock farms. Farms that specialized in the production of vegetables, fruits, nursery and greenhouse products had the highest percentage of favorable farms and the lowest share in the vulnerable category. Two-thirds of beef, hog, or sheep farms had negative net cash income which was higher than for any other farm type in 1988.

The average farm in the Southeast was 230 acres, 20 acres less than last year. Farm operators owned roughly 3 out of 4 acres operated. Farms in the marginal income category operated the smallest acres and owned the largest portion of total land operated. Marginally solvent and favorable farms were the largest at 290 acres. Farm operator age ranged from 42 years for farms in the marginal solvency position to 57 years for favorable farms. The average age of farm operators for the region was 55 years.

Marginally solvent farms had the highest net cash farm income and return on assets with an average debt/asset ratio of 0.57. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficits of both marginal income and vulnerable farms were more than offset by nonfarm earnings of their households.



Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southeast region totaled \$7.8 billion in 1988, up 2.0 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional outlays for livestock and poultry, labor, fertilizer, agricultural chemicals and sprays, fuels, farm supplies, and farm and land improvements were partially offset by expense decreases in feed, farm services, interest, and farm machinery.

Expenditures by livestock farms at \$4.0 billion were 51 percent of the total regional expense compared to 57 percent in 1987. Nearly two-thirds of the livestock farm expenses were for feed (35 percent), livestock and poultry (17 percent), and farm services (13 percent). Crop farm expenditures totaled \$3.8 billion, 49 percent of the regional expenses. Major expenses on crop farms were labor (25 percent), combined fertilizer/agricultural chemicals/seed (24 percent), and farm services (19 percent).

Table 4--Selected production expenditures by type of farm, 1988

Southeast (AL, FL, GA AND SC)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,780,249	3,976,019	7,756,268	118,361,751
Livestock & poultry	18,876	658,334	677,210	13,607,228
Feed	61,117	1,390,252	1,451,369	17,914,533
Farm services	719,895	535,523	1,255,418	24,630,395
Ag. chemicals & sprays	306,461	34,901	341,362	3,858,857
Fertilizer	374,145	152,748	526,893	6,957,661
Interest	210,401	185,501	395,902	8,365,499
Taxes (property & real estate)	95,062	83,828	178,890	3,927,991
Labor	934,718	286,665	1,221,383	10,224,049
Fuels & lubricants	179,213	111,475	290,688	4,450,295
Farm supplies	137,780	51,011	188,791	2,249,336
Building & fencing	65,481	93,291	158,772	2,226,172
Farm & land improvements	52,394	15,473	67,867	943,058
Total farm machinery	284,558	268,363	552,921	11,501,269
Seeds	235,286	32,142	267,428	3,692,164
Trucks & autos	58,060	63,113	121,173	2,058,496
Other unallocated expenses	46,803	13,398	60,201	1,754,751

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### **In this report...**

1988 financial conditions were largely unchanged when compared with 1987 for farms in Alabama, Florida, Georgia, and South Carolina, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Agricultural Statistics Services in Alabama, Florida, Georgia, and South Carolina as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

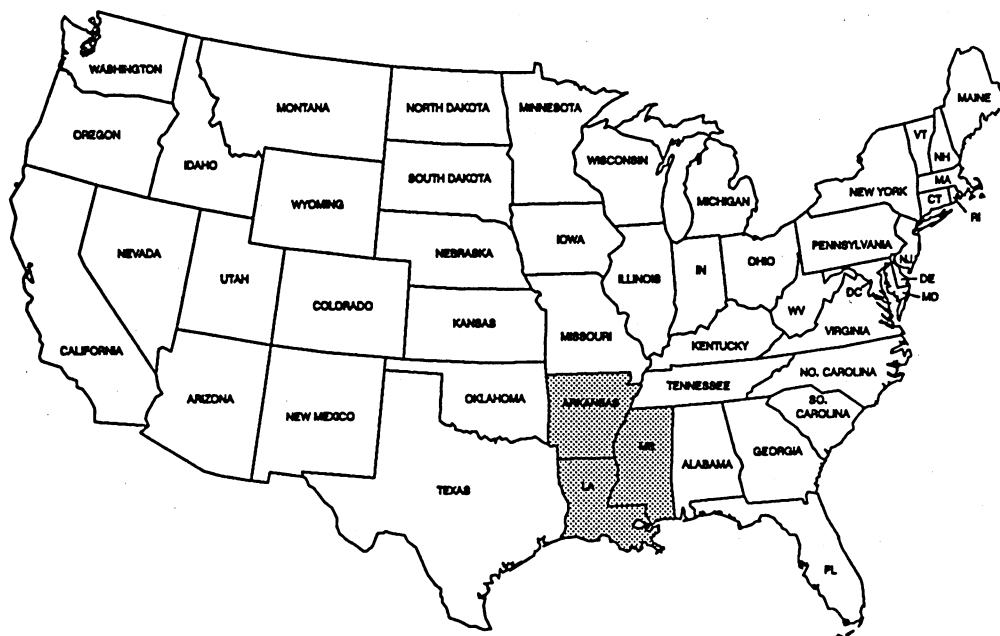
NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# DELTA



The Delta region was estimated to have 101,600 farms, which represented 6 percent of all U.S. farms in 1988. Two-thirds specialized in the production of beef, hogs, or sheep, while cash grain represented the next most common production specialty. Over 80 percent of farms had gross sales below \$40,000 in 1988. Seventy-three percent of farms were less than 250 acres in size and 7 percent operated more than 1,000 acres. Fifty-seven percent owned all of the land they operated. Full tenants accounted for 11 percent of farms and the remaining one-third were partial owners of the land they farmed in 1988. Like other regions the majority of farms were organized as individual operations (93 percent). Four percent of farms in the Delta region were partnerships while the remaining 3 percent were corporations or cooperatives.

Nearly half of total land operated in the Delta region was devoted to cropland, 30 percent to pasture, 7 percent was idle under Government programs, and the remainder went for summer fallow, woodlands, or some other use. Farm operators in the Delta accounted for only 2 percent of U.S. livestock sales and 5 percent of total crop sales in 1988. The highest ranking crops, in terms of gross sales, were soybeans and peanuts (32 percent), and rice (29 percent) and cotton (19 percent). Cattle and milk and dairy products were the most important livestock commodities. Twenty-three percent of farms participated in Government programs, representing 2 percent of U.S. payments. The typical farm operator was 54 years old and averaged working 24 hours per week on the farm. An estimated 45 percent of farm operators in the Delta region considered farming to be their primary occupation. Eighty-six percent of farmers and their households reported earning nonfarm income which represented 5 percent of U.S. farm operator off-farm income.

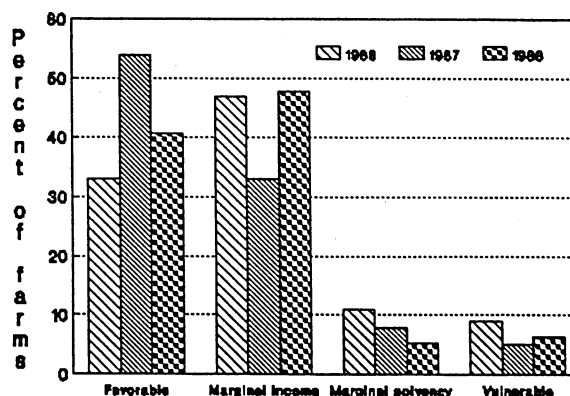
# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Arkansas

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

The average net cash income of Arkansas farm operators was \$3,500 higher than in 1987. This was the highest net cash income in the Delta region and over \$10,000 higher than the U.S. average in 1988. The increase in farm income was largely a result of higher livestock sales. Despite this higher net income, the share of farms with negative net cash farm income increased by 16 percentage points moving many farms from the favorable to marginal income financial category. Only 6 percent of Arkansas farmers were considered in a vulnerable financial position, up by one point from a year ago, but still below the U.S. value of 7 percent.

The average debt/asset ratio increased from 0.10 to 0.13 which was equal to the value for all U.S. farms, but the highest in the region. On the positive side, the proportion of farms with high debt fell from 13 percent to 11 percent.

Figure 1--Arkansas farm financial position



A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Table 1--Financial performance of Delta States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Arkansas	41	48	5	6
Louisiana	43	50	6	1
Mississippi	48	41	5	6
Delta	44	46	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	AR	LA	MS	Delta	U.S.
	Acres per farm				
Acres operated 1/	350	260	250	280	470
	Dollars per farm				
Crop sales	35,500	17,900	14,900	22,300	26,200
+ Net CCC loans	3,500	1,900	4,900	3,700	-900
+ Livestock sales	46,900	11,500	20,900	27,100	38,100
+ Other farm income	12,100	4,000	8,000	8,400	9,000
= Gross cash farm income	98,000	35,300	48,700	61,500	72,400
- Total operating expenses	69,900	28,800	40,800	47,400	55,000
= Net cash farm income	28,100	6,500	7,900	14,100	17,400
Nonfarm income	25,700	29,800	23,900	25,900	28,900
Net worth	216,100	204,400	214,100	212,400	311,300
	Ratio				
Debt/asset ratio	0.13	0.09	0.12	0.12	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics for Arkansas farms by income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	41	48	5	6	100
Economic class:					
Sales above \$250,000	80	11	d	d	100
Sales \$40,000-\$250,000	64	12	20	4	100
Sales below \$40,000	29	62	d	d	100
Type of farm:					
Cash grain	66	13	16	5	100
Other crops	48	50	d	d	100
Beef, hogs, and sheep	30	62	0	8	100
Other livestock and poultry	47	24	d	d	100
			<u>Acres per farm</u>		
Operating:					
Acres owned	140	150	130	110	140
Acres operated	470	200	650	380	350
			<u>Years</u>		
Operator age	51	57	48	50	53
			<u>Dollars per farm</u>		
Financial:					
Crop sales	69,200	4,800	84,000	10,100	35,500
+ Net CCC loans	7,500	0	d	d	3,500
+ Livestock sales	60,000	6,500	353,200	15,800	46,900
+ Other farm income	21,200	2,000	d	d	12,100
= Gross cash farm income	157,900	13,300	488,000	30,200	98,000
- Cash operating expenses	108,600	19,600	256,900	47,600	69,900
= Net cash farm income	49,300	-6,300	231,100	-17,300	28,100
Nonfarm income	19,900	30,300	7,600	42,600	25,700
Total assets	324,400	183,100	330,200	204,300	249,600
Total debt	21,500	14,000	196,700	124,300	33,500
			<u>Ratio</u>		
Ratios:					
Debt/asset	0.07	0.08	0.60	0.61	0.13
Return on assets	.14	-.01	.13	-.08	.08
Cash expenses/gross income	.60	1.46	.66	1.69	.72
Interest/gross income	.04	.18	.11	.29	.07

d = Data insufficient for disclosure.

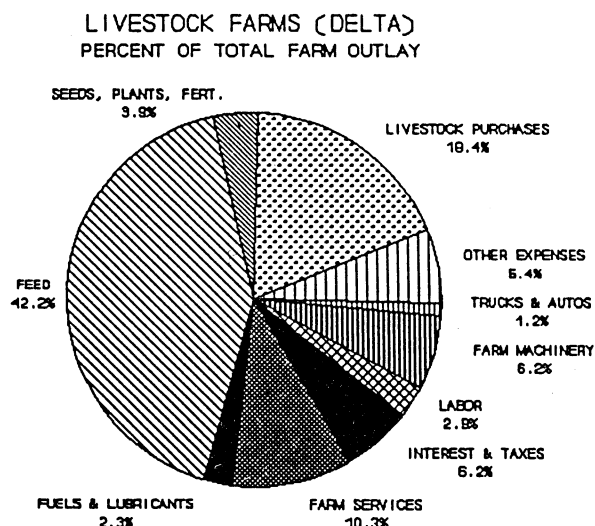
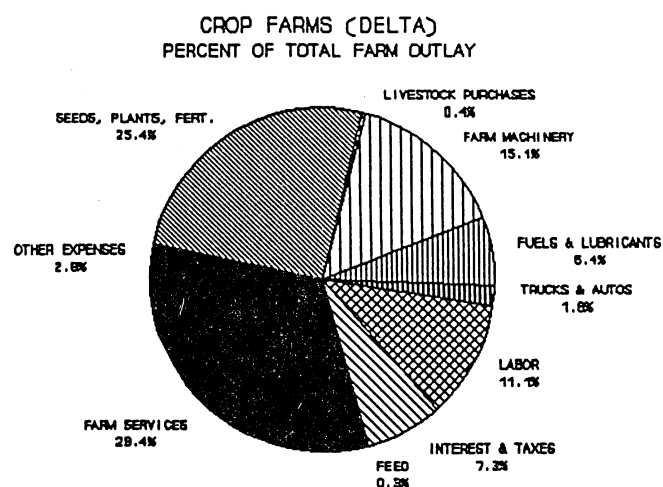
Financial performance was directly related with farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 80 percent and fell to 29 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms. These smaller farms are normally regarded as part-time operations that are more dependent on off-farm sources of income.

Cash grain farms had the highest percentage of favorable farms among farm types. At least half of farms that specialized in the production of crops other than cash grains or beef, hogs, sheep had negative net cash farm income in 1988. Farms producing livestock other than beef, hogs, and sheep had the largest proportion of farms with high debt when compared with other farm types.

At 350 acres, Arkansas farms were the largest in the region during 1988 and about 6 acres more than last year. Farm operators owned 40 percent of total land operated. The average age of farms operators ranged from 48 years for marginally solvent farms to 57 years for farms in the marginal income category. The average for the State was 53 years. Marginally solvent farms operated the largest acreage and rented the highest portion of land operated. The smallest farms in terms of acreage were in the marginal income category.

Marginally solvent farms had the highest net cash farm income and one of the highest return on assets with an average debt/asset ratio of 0.60. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficit of both marginal income and vulnerable farms was more than offset by nonfarm earnings of their households.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Delta region total \$5.9 billion in 1988, up 11 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Decreased regional outlays for labor, interest, farm supplies and truck and autos were offset by expense increases in

all other major items. Expenditures were equally divided between both crop and livestock farms at \$2.9 billion each, compared to 51 percent in 1987 for livestock farms and 49 percent for crop farms. Major expenses for crop farms were farm services (29 percent) and farm machinery (15 percent), while major expenses for livestock farms were feed (42 percent) and livestock and poultry (18 percent).

Table 4--Selected production expenditures by type of farm, 1988

Delta (AR, LA AND MS)	Crop farms	Livestock farms	All Farms	
			Region	U.S
<u>1,000 Dollars</u>				
Total farm production expenditures	2,946,871	2,936,597	5,883,468	118,361,751
Livestock & poultry	13,181	539,523	552,704	13,607,228
Feed	8,840	1,238,671	1,247,511	17,914,533
Farm services	865,707	301,557	1,167,264	24,630,395
Ag. chemicals & sprays	349,456	12,827	362,283	3,858,857
Fertilizer	255,897	82,523	338,420	6,957,661
Interest	162,433	147,183	309,616	8,365,499
Taxes (property & real estate)	53,566	35,278	88,844	3,927,991
Labor	326,297	85,462	411,759	10,224,049
Fuels & lubricants	187,966	67,778	255,744	4,450,295
Farm supplies	26,296	22,987	49,283	2,249,336
Building & fencing	15,541	143,486	159,027	2,226,172
Farm & land improvements	28,340	15,694	44,034	943,058
Total farm machinery	444,498	181,417	625,915	11,501,269
Seeds	143,415	19,292	162,707	3,692,164
Trucks & autos	53,372	35,488	88,860	2,058,496
Other unallocated expenses	12,065	7,429	19,494	1,754,751

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### **In this report...**

The average net cash income of Arkansas farm operators was \$3,500 higher than in 1987. This was the highest net cash income in the Delta region and over \$10,000 higher than the U.S. average in 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Arkansas Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Mississippi

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Results for 1988 show little change in the distribution of Mississippi farm operators across financial performance categories. An estimated 48 percent of farms were in a favorable financial position compared to 47 percent in 1987. The share of farms considered to be in a vulnerable financial position was unchanged from a year ago at 6 percent. When compared with all U.S. farms, Mississippi had a similar proportion of farms with negative income, but a lower share with high debt.

The reduction in average operating expenses was offset by lower crop and livestock sales resulting in a \$5,000 decline in average net cash farm income. Average nonfarm income earned by farm households was nearly \$4,000 higher than in 1987, although Mississippi had the lowest value in the region.

The average debt/asset ratio fell from 0.15 at the end of 1987 to 0.12 which was equal to the regional average and slightly below the U.S. average. Average net worth of Mississippi farms was \$5,000 lower than in 1987, but remained higher than the average for the Delta region.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Mississippi farm financial position

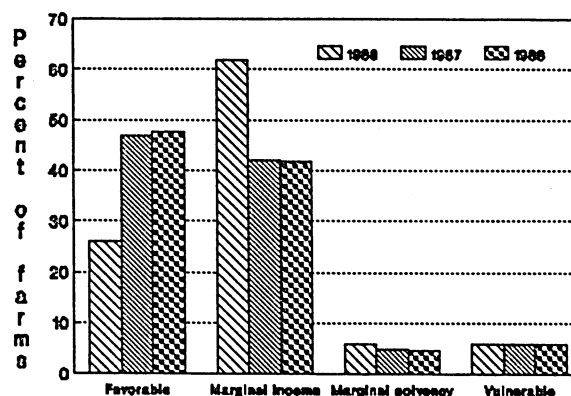


Table 1--Financial performance of Delta States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Arkansas	41	48	5	6
Louisiana	43	50	6	1
Mississippi	48	41	5	6
Delta	44	46	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	AR	LA	MS	Delta	U.S.
Acres per farm					
Acres operated 1/	350	260	250	280	470
Dollars per farm					
Crop sales	35,500	17,900	14,900	22,300	26,200
+ Net CCC loans	3,500	1,900	4,900	3,700	-900
+ Livestock sales	46,900	11,500	20,900	27,100	38,100
+ Other farm income	12,100	4,000	8,000	8,400	9,000
= Gross cash farm income	98,000	35,300	48,700	61,500	72,400
- Total operating expenses	69,900	28,800	40,800	47,400	55,000
= Net cash farm income	28,100	6,500	7,900	14,100	17,400
Nonfarm income	25,700	29,800	23,900	25,900	28,900
Net worth	216,100	204,400	214,100	212,400	311,300
Ratio					
Debt/asset	0.13	0.09	0.12	0.12	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.



Table 3--Average operating and financial characteristics for Mississippi farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	48	41	5	6	100
Economic class:					
Sales above \$250,000	75	5	16	4	100
Sales \$40,000-\$250,000	69	6	21	4	100
Sales below \$40,000	44	48	2	6	100
Type of farm:					
Cash grain	53	21	6	20	100
Other crops	72	15	4	9	100
Beef, hogs, and sheep	43	50	3	4	100
Other livestock and poultry	47	27	27	0	100
Operating:			Acres per farm		
Acres owned	190	90	220	210	150
Acres operated	290	150	550	390	250
			Years		
Operator age	58	52	43	36	54
Financial:			Dollars per farm		
Crop sales	21,800	3,200	56,600	8,800	14,900
+ Net CCC loans	9,500	400	2,100	1,000	4,900
+ Livestock sales	25,900	4,900	126,600	11,900	20,900
+ Other farm income	12,200	1,000	32,000	5,800	8,000
= Gross cash farm income	69,400	9,500	217,300	27,500	48,700
- Cash operating expenses	47,600	15,000	198,200	45,600	40,800
= Net cash farm income	21,800	-5,500	19,100	-18,100	7,900
Nonfarm income	19,400	26,600	20,000	44,600	23,900
Total assets	307,800	161,100	331,700	254,700	244,400
Total debt	9,700	8,900	226,800	193,300	30,300
Ratios:			Ratio		
Debt/asset	0.03	0.06	0.68	0.76	0.12
Return on assets	0.05	-0.01	0.02	-0.03	0.02
Cash expenses/gross income	0.63	1.60	0.77	1.66	0.80
Interest/gross income	0.03	0.12	0.14	0.31	0.07

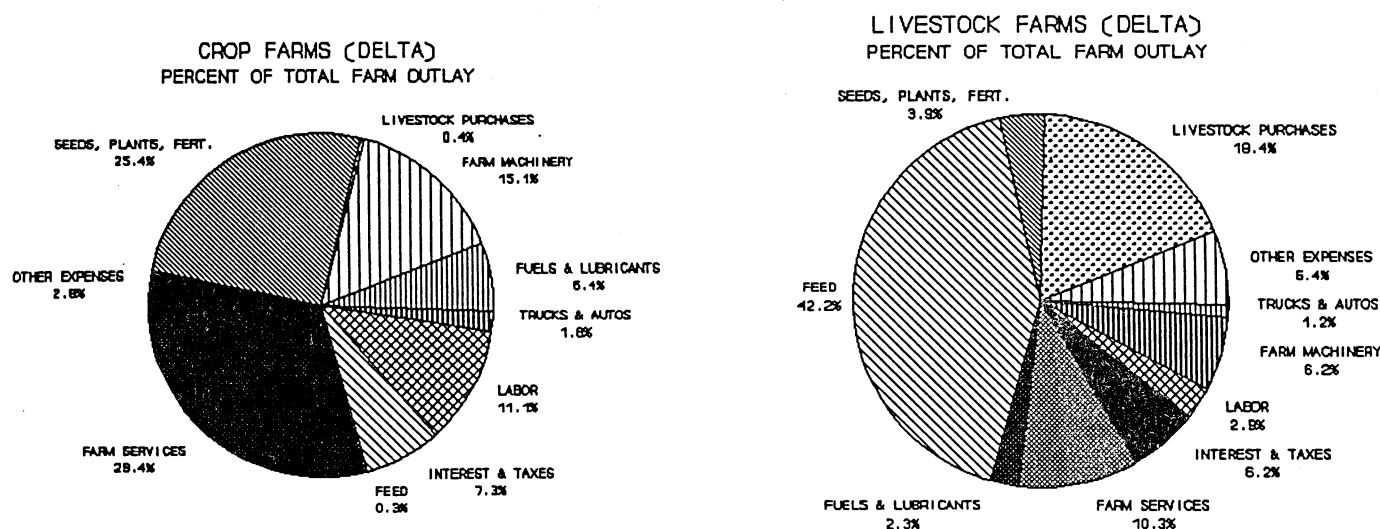
The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 75 percent and fell to 44 percent of farms with sales under \$40,000. At least 20 percent of farms with sales over \$40,000 had high debt, while those in the smallest economic class were more likely to have negative net cash farm income. These smaller farms are normally regarded as part-time operations that are more dependent on off-farm sources of income.

One out of five farms that specialized in the production of cash grains was in a vulnerable financial position in 1988, the highest share when compared to all other farm types. Farms that produced crops other than cash grains (principally cotton) had the highest percentage in the favorable category. Over half of beef, hog, or sheep farms had negative net cash income at the end of 1988 which was a higher proportion than for any other farm type.

The average farm in Mississippi was 250 acres, 30 acres less than last year. Of these, 60 percent were owned by the farm operator. The average age of farm operators ranged from 36 year for vulnerable farms to 58 years for those in the favorable category. The average age of operators for the State in 1988 was 54 years. Marginally solvent farms operated the largest acreage which was twice the State average and rented the highest portion of land operated. The smallest farms in terms of acreage were in the marginal income category.

Favorable farms had the highest average net cash income and returns on assets. Marginally solvent farms had the highest gross cash farm income, expenses, and assets. On average, the cash deficit of both marginal income and vulnerable farms was more than offset by nonfarm earnings of their households.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Delta region total \$5.9 billion in 1988, up 11 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Decreased regional outlays for labor, interest, farm supplies and truck and autos were offset by expense increases in

all other major items. Expenditures were equally divided between both crop and livestock farms at \$2.9 billion each, compared to 51 percent in 1987 for livestock farms and 49 percent for crop farms. Major expenses for crop farms were farm services (29 percent) and farm machinery (15 percent), while major expenses for livestock farms were feed (42 percent) and livestock and poultry (18 percent).

Table 4--Selected production expenditures by type of farm, 1988

Delta (AR, LA AND MS)	Crop farms	Livestock farms	All Farms	
			Region	U.S
<u>1,000 Dollars</u>				
Total farm production expenditures	2,946,871	2,936,597	5,883,468	118,361,751
Livestock & poultry	13,181	539,523	552,704	13,607,228
Feed	8,840	1,238,671	1,247,511	17,914,533
Farm services	865,707	301,557	1,167,264	24,630,395
Ag. chemicals & sprays	349,456	12,827	362,283	3,858,857
Fertilizer	255,897	82,523	338,420	6,957,661
Interest	162,433	147,183	309,616	8,365,499
Taxes (property & real estate)	53,566	35,278	88,844	3,927,991
Labor	326,297	85,462	411,759	10,224,049
Fuels & lubricants	187,966	67,778	255,744	4,450,295
Farm supplies	26,296	22,987	49,283	2,249,336
Building & fencing	15,541	143,486	159,027	2,226,172
Farm & land improvements	28,340	15,694	44,034	943,058
Total farm machinery	444,498	181,417	625,915	11,501,269
Seeds	143,415	19,292	162,707	3,692,164
Trucks & autos	53,372	35,488	88,860	2,058,496
Other unallocated expenses	12,065	7,429	19,494	1,754,751

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Results for 1988 show little change in the distribution of Mississippi farm operators across financial performance categories, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Mississippi Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Louisiana

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, Louisiana had a lower percentage of vulnerable farms than any other State in the Delta region during 1988. An estimated 43 percent of farms were considered in a favorable financial position. This was roughly similar to the share estimated for the region and 3 percentage points less than for all U.S. farms. At the opposite extreme, only 1 percent of farms were regarded as financially vulnerable due to a combination of negative net income and high debt. This was the lowest percentage in the region and 6 points below the value for all U.S. farms.

The average net cash farm income of \$6,500 was lowest among Delta States and less than half the U.S. average of \$17,400. However, when compared to all farms, the share of farms with negative income was identical at 51 percent. Louisiana farm households earned average nonfarm income of \$29,800 in 1988 which was highest in the region and about \$1,000 more than for all U.S. farms. The average debt/asset ratio of 0.09 was the lowest in the region, while only 7 percent of farms had high debt compared with 10 percent for the Delta region and 14 percent for all farms.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as FAVORABLE, while those with negative income and low debt are considered in a MARGINAL INCOME position. Those with positive income and high debt are characterized as MARGINAL SOLVENCY and those with both negative income and high debt are VULNERABLE.

Figure 1--Louisiana farm financial position

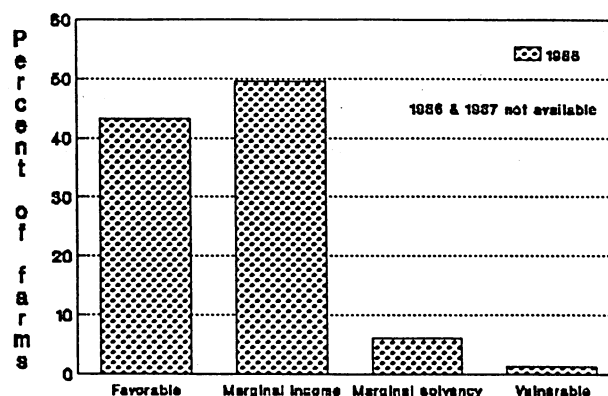


Table 1--Financial performance of Delta States, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Arkansas	41	48	5	6
Louisiana	43	50	6	1
Mississippi	48	41	5	6
Delta	44	46	5	5
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	AR	LA	MS	Delta	U.S.
	<u>Acres per farm</u>				
Acres operated 1/	350	260	250	280	470
	<u>Dollars per farm</u>				
Crop sales	35,500	17,900	14,900	22,300	26,200
+ Net CCC loans	3,500	1,900	4,900	3,700	-900
+ Livestock sales	46,900	11,500	20,900	27,100	38,100
+ Other farm income	12,100	4,000	8,000	8,400	9,000
= Gross cash farm income	98,000	35,300	48,700	61,500	72,400
- Total operating expenses	69,900	28,800	40,800	47,400	55,000
= Net cash farm income	28,100	6,500	7,900	14,100	17,400
Nonfarm income	25,700	29,800	23,900	25,900	28,900
Net worth	216,100	204,400	214,100	212,400	311,300
	<u>Ratio</u>				
Debt/asset	0.13	0.09	0.12	0.12	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Louisiana farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	43	50	6	1	100
Economic class:					
Sales above \$250,000	60	10	26	4	100
Sales \$40,000-\$250,000	54	13	24	9	100
Sales below \$40,000	41	55	4	0	100
Type of farm:					
Cash grain	67	10	18	5	100
Other crops	69	21	8	2	100
Beef, hogs, and sheep	34	63	d	d	100
Other livestock and poultry	37	41	d	d	100
			Acres per farm		
Operating:					
Acres owned	160	100	100	170	130
Acres operated	300	180	510	640	260
			Years		
Operator age	56	55	44	48	55
			Dollars per farm		
Financial:					
Crop sales	26,000	2,500	79,800	41,400	17,900
+ Net CCC loans	2,000	100	15,000	d	1,900
+ Livestock sales	15,800	5,400	24,500	40,800	11,500
+ Other farm income	4,900	1,400	15,200	d	4,000
= Gross cash farm income	48,700	9,400	134,500	104,100	35,300
- Cash operating expenses	30,800	17,400	86,000	123,300	28,800
= Net cash farm income	17,900	-8,000	48,500	-19,200	6,500
Nonfarm income	40,900	22,000	18,500	6,800	29,800
Total assets	259,200	196,300	212,900	227,800	224,800
Total debt	12,400	9,800	133,300	157,500	20,400
			Ratio		
Ratios:					
Debt/asset	0.05	0.05	0.63	0.69	0.09
Return on assets	.06	-.02	.18	-.08	.03
Cash expenses/gross income	.63	1.85	.64	1.18	.82
Interest/gross income	.02	.13	.07	.13	.05

d = Data insufficient for disclosure.

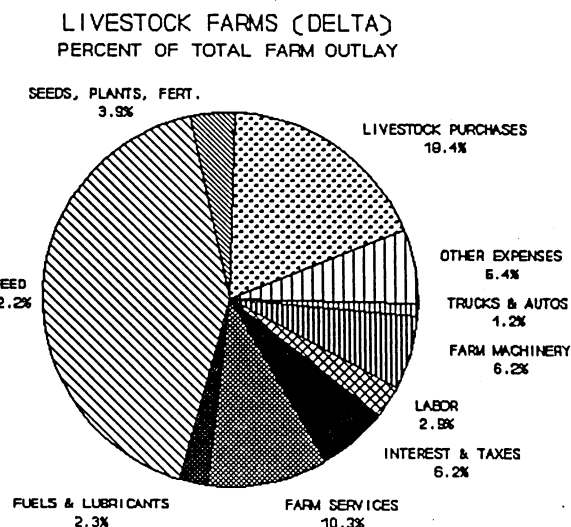
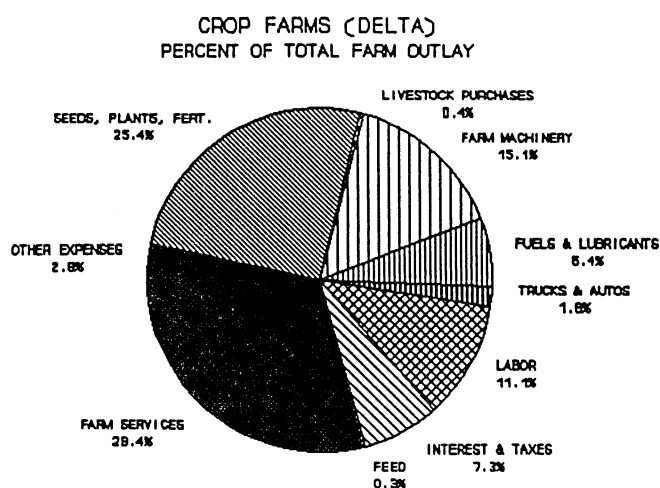
Financial performance was directly related to farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 60 percent and fell to 41 percent of farms with sales under \$40,000. Farms with gross sales of \$40,000 to \$250,000 had the highest share categorized as vulnerable at 9 percent. Two-thirds of farms with sales over \$40,000 had high debt, while farms in the smallest economic class were more likely to have negative net cash farm income. These smaller farms are normally regarded as part-time operations that are more dependent on off-farm sources of income.

In general, crop farms were in a stronger financial condition at the end of 1988 with nearly twice the percentage of farms in a favorable financial position when compared with livestock farms.

The average farm in Louisiana operated 260 acres, half of these were owned by the operator. The average age of farm operators was 55 years. Farms in the marginal solvency category rented the largest share of land operated (80 percent) and were run by the youngest farmers. Vulnerable farms operate more than twice the State's average acreage, while farms in the marginal income category had the smallest acres operated.

Marginally solvent farms had the highest net cash farm income and return on assets with an average debt/asset ratio of 0.63. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficit of marginal income farms was more than offset by nonfarm earnings of their households. On the other hand, nonfarm income of vulnerable farms was not enough to compensate for the cash losses of their farms business.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Delta region total \$5.9 billion in 1988, up 11 percent from 1987 according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Decreased regional outlays for labor, interest, farm supplies and truck and autos were offset by expense increases in all

other major items. Expenditures were equally divided between both crop and livestock farms at \$2.9 billion each, compared to 51 percent in 1987 for livestock farms and 49 percent for crop farms. Major expenses for crop farms were farm services (29 percent) and farm machinery (15 percent), while major expenses for livestock farms were feed (42 percent) and livestock and poultry (18 percent).

Table 4--Selected production expenditures by type of farm, 1988

Delta (AR, LA AND MS)	Crop farms	Livestock farms	All Farms	
			Region	U.S
<u>1,000 Dollars</u>				
Total farm production expenditures	2,946,871	2,936,597	5,883,468	118,361,751
Livestock & poultry	13,181	539,523	552,704	13,607,228
Feed	8,840	1,238,671	1,247,511	17,914,533
Farm services	865,707	301,557	1,167,264	24,630,395
Ag. chemicals & sprays	349,456	12,827	362,283	3,858,857
Fertilizer	255,897	82,523	338,420	6,957,661
Interest	162,433	147,183	309,616	8,365,499
Taxes (property & real estate)	53,566	35,278	88,844	3,927,991
Labor	326,297	85,462	411,759	10,224,049
Fuels & lubricants	187,966	67,778	255,744	4,450,295
Farm supplies	26,296	22,987	49,283	2,249,336
Building & fencing	15,541	143,486	159,027	2,226,172
Farm & land improvements	28,340	15,694	44,034	943,058
Total farm machinery	444,498	181,417	625,915	11,501,269
Seeds	143,415	19,292	162,707	3,692,164
Trucks & autos	53,372	35,488	88,860	2,058,496
Other unallocated expenses	12,065	7,429	19,494	1,754,751

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### **In this report...**

Overall, Louisiana had fewer vulnerable farms than any other State in the Delta region during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Louisiana Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

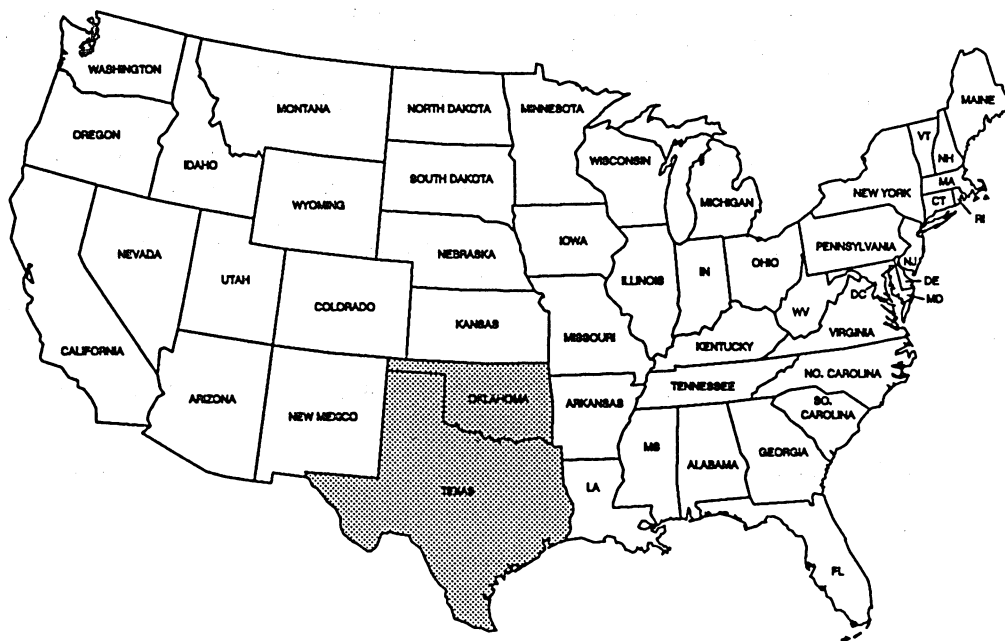
NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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## SOUTHERN PLAINS



The Southern Plains was estimated to have 219,600 farm or ranch operators in 1988 which represented 12 percent of all U.S. farms. There was nearly four times as many livestock as crop farms. The most common livestock production specialty was beef, hog, or sheep (90 percent), while cash grain (45 percent) represented the largest proportion of crop specialties. Half of the farms had gross sales of less than \$10,000 and only one in five were in the economic classes above \$40,000. An estimated 37 percent of farms or ranches operated under 100 acres, while 13 percent operated at least 1,000 acres. Nearly half owned all the land they operated. Full tenants represented 10 percent of farms and the remaining 41 percent were partial owners of the land they farmed in 1988. Ninety-three percent of farms were organized as individual operations, 5 percent as partnerships, and the remaining 2 percent were cooperatives or corporations.

Seventeen percent of total land operated in the Southern Plains was devoted to cropland, 78 percent to pasture, 5 percent was idle under Government programs, and the remainder was for summer fallow, woodlands, or some other use. Farm or ranch operators in the Southern Plains accounted for 12 percent of U.S. livestock sales and 7 percent of crop sales in 1988. The highest ranking crops, in terms of gross sales, were cotton (25 percent) and wheat and rice (20 percent) and nursery and greenhouse items (19 percent). Cattle accounted for 75 percent of all livestock sales making it the most important livestock product. Milk and dairy products accounted for the next largest share at 17 percent. Twenty-four percent of farms participated in Government programs, and received 9 percent of U.S. payments. The typical farm operator was 54 years old and average working 29 hours per week on the farm. An estimated 48 percent of farm operators indicated that farming was their primary occupation. Eighty-eight percent of farmers or ranchers and their households reported earning nonfarm incomes which represented 19 percent of U.S. farm operator off-farm earnings.



# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Oklahoma

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Results for 1988 suggest a continuation of the downward trend in the percentage of Oklahoma farms and ranches considered as financially vulnerable which began in 1986. Over half of all farms had negative net cash income which represents a 7 percentage point increase over 1987. This resulted in 10 percent of farms moving from the favorable position a year ago to the marginal income category in 1988.

Higher average livestock sales which accounted for most of the increase in gross cash farm income were offset by a relatively large increase in average cash operating expenses. The net effect of these changes was a \$2,800 reduction in net cash farm income from 1987. Nonfarm income averaged \$27,200 and was \$4,300 less than a year ago, but remained about 10 times average net cash farm income. Oklahoma farms ended 1988 with a weaker solvency position than a year earlier. The average debt/asset ratio increased from 0.18 in 1987 to 0.21. Net worth declined by an average of \$19,000.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Oklahoma farm financial position

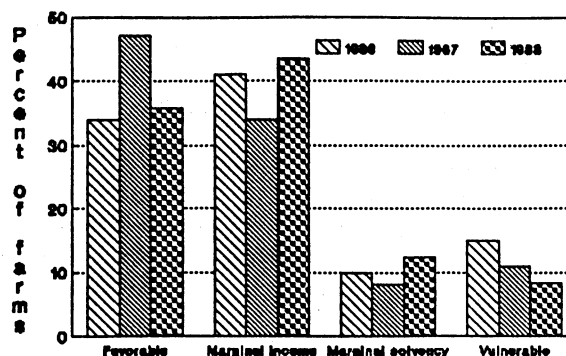


Table 1--Financial performance of Southern Plains States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Oklahoma	36	44	12	8
Texas	37	53	4	6
Southern Plains	37	51	6	6
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	OK	TX	Southern Plains	U.S.
<u>Acres per farm</u>				
Acres operated 1/	520	840	760	470
<u>Dollars per farm</u>				
Crop sales	7,700	17,800	15,300	26,200
+ Net CCC loans	200	1,400	1,100	-900
+ Livestock sales	36,400	37,300	37,100	38,100
+ Other farm income	7,000	9,500	8,900	9,000
= Gross cash farm income	51,300	66,000	62,400	72,400
- Total operating expenses	48,500	48,900	48,800	55,000
= Net cash farm income	2,800	17,100	13,600	17,400
Nonfarm income	27,200	48,400	43,200	28,900
Net worth	191,700	395,000	345,000	311,300
<u>Ratio</u>				
Debt/asset	0.21	0.08	0.10	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Oklahoma farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	36	44	12	8	100
Economic class:					
Sales above \$250,000	48	21	20	11	100
Sales \$40,000-\$250,000	46	23	25	6	100
Sales below \$40,000	33	49	9	9	100
Type of farm:					
Cash grain	33	33	d	d	100
Other crops	60	22	d	d	100
Beef, hogs, and sheep	31	54	4	11	100
Other livestock and poultry	52	d	41	d	100
			Acres per farm		
Operating:					
Acres owned	320	160	270	450	260
Acres operated	510	300	970	1,010	520
			Years		
Operator age	60	57	39	50	55
			Dollars per farm		
Financial:					
Crop sales	10,600	2,700	18,000	d	7,700
+ Net CCC loans	d	d	d	d	200
+ Livestock sales	48,500	22,100	52,200	35,700	36,400
+ Other farm income	d	d	d	d	7,000
= Gross cash farm income	67,000	26,500	95,100	49,700	51,300
- Cash operating expenses	47,200	35,000	73,900	87,100	48,500
= Net cash farm income	19,700	-8,500	21,200	-37,400	2,800
Nonfarm income	20,400	38,100	11,600	22,000	27,200
Total assets	297,000	199,600	229,000	251,700	242,300
Total debt	23,400	17,200	148,300	198,600	50,700
			Ratio		
Ratios:					
Debt/asset	0.08	0.09	0.65	0.79	0.21
Return on assets	.03	-.05	.05	-.08	-.01
Cash expenses/gross income	.70	1.32	.78	1.75	.95
Interest/gross income	.03	.08	.11	.41	.09

d = Data insufficient for disclosure.

There was considerable variation in the financial performance of Oklahoma's largest farms (gross sales over \$250,000). When compared with other economic classes they had the highest percentage of farms in both the favorable and vulnerable category. Farms in the smallest economic class were more likely to have negative cash income than were larger farms. Nearly 1 in 3 farms with gross sales over \$40,000 had debt/asset ratios above 0.40 in 1988.

Most of the reduction in the percentage of favorable farms was associated with cash grain and beef, hog, or sheep operations. These farm types had 33 and 31 percent, respectively in this category compared with 56 and 40 percent a year ago.

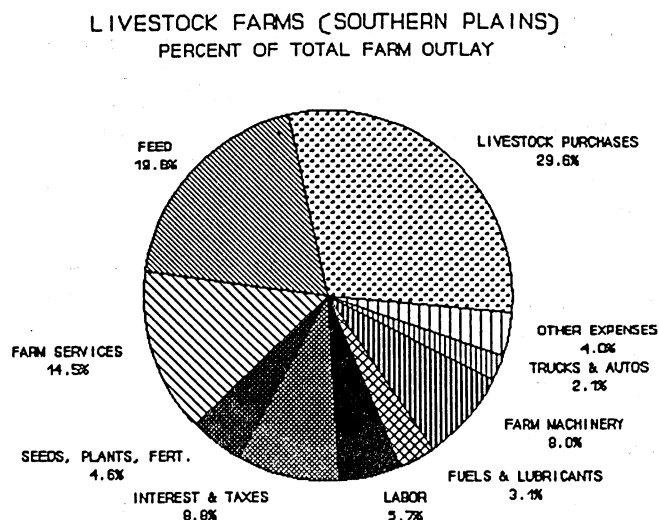
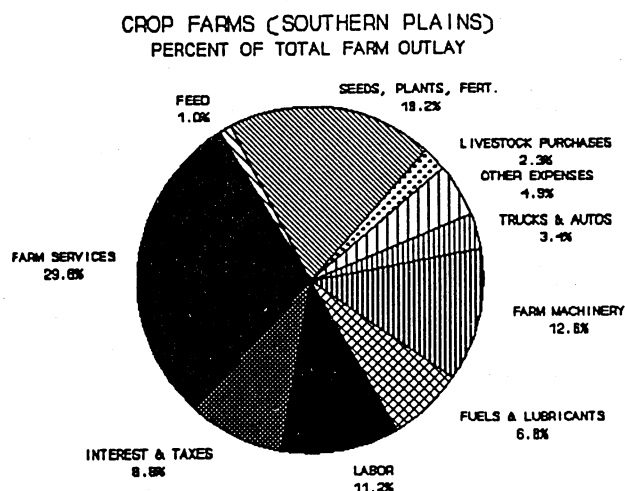
The average farm or ranch in Oklahoma was 520 acres, up 30 acres from 1987. Farm operators owned half of total land operated, although land tenure varied by financial status. Marginally solvent farms rented

the largest portion of total land operated, while favorable operations owned more than 60 percent of acreage operated. Vulnerable farms operated the largest acreage which was 3 times the 300 acres of marginally income farms, the smallest among financial performance categories.

Marginally solvent farms were run by the youngest operators and had the highest net cash income and return on assets. This suggests that high debt can be successfully managed and provide a respectable income to the farm business.

Farms in the vulnerable category had a similar debt/asset structure to marginally solvent operations, yet their farm business earnings were consumed by cash expenses. This was particularly true for interest expense which represented 41 percent of gross cash income. Average nonfarm income of \$22,000 would partially offset farm business losses of these farms.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southern Plains region total \$12.7 billion in 1988, up 51 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Major increases in all categories contributed to this increase in expenditures. Expenditures by livestock farms at \$8.5 billion were 67 percent of the total regional

expenditures compared to 69 percent in 1987. Major expense items on livestock farms were livestock and poultry (30 percent), feed (20 percent), and farm services (14 percent). Crop farm expenditures total \$4.2 billion, 33 percent of the regional expenses. Over one-half of the crop farm expenses in these States were for farm services (30 percent), farm machinery (13 percent), and labor (11 percent).

Table 4--Selected production expenditures by type of farm, 1988

Southern Plains (OK AND TX)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	4,171,514	8,522,313	12,693,827	118,361,751
Livestock & poultry	94,018	2,525,769	2,619,787	13,607,228
Feed	42,923	1,668,563	1,711,486	17,914,533
Farm services	1,245,122	1,234,029	2,479,151	24,630,395
Ag. chemicals & sprays	174,559	51,056	225,615	3,858,857
Fertilizer	338,358	255,464	593,822	6,957,661
Interest	272,142	534,425	806,567	8,365,499
Taxes (property & real estate)	94,731	216,631	311,362	3,927,991
Labor	466,163	489,903	956,066	10,224,049
Fuels & lubricants	284,549	259,667	544,216	4,450,295
Farm supplies	92,490	89,048	181,538	2,249,336
Building & fencing	46,391	192,230	238,621	2,226,172
Farm & land improvements	47,958	50,653	98,611	943,058
Total farm machinery	523,885	684,017	1,207,902	11,501,269
Seeds	289,913	82,683	372,596	3,692,164
Trucks & autos	141,473	179,390	320,863	2,058,496
Other unallocated expenses	16,839	8,786	25,625	1,754,751

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### **In this report...**

In 1988 there was a continuation of the downward trend in the percentage of Oklahoma farms and ranches considered as financially vulnerable which began in 1986, according to the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Oklahoma Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Texas

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Results for 1988 show no change in the distribution of Texas farm and ranch operators across financial performance categories. Just as in 1987, 37 percent of Texas farms were in a favorable financial position, while 6 percent remained vulnerable. When compared with all U.S. farms, Texas had a higher share with negative income, but a lower share with high debt.

Increased livestock sales helped to boost average gross cash income by more than the 18-percent increase in cash operating expenses. As a result, the average net cash farm income of Texas farms increased by \$6,400 over 1987. Nonfarm income also increased going from \$36,000 in 1987 to \$48,400 per farm which was almost twice the U.S. average. The average debt/asset ratio and net worth were unchanged at 0.08 and \$395,000, respectively. When compared with U.S. averages, these values indicate that Texas farms had a stronger solvency position at the end of 1988.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Figure 1--Texas farm financial position

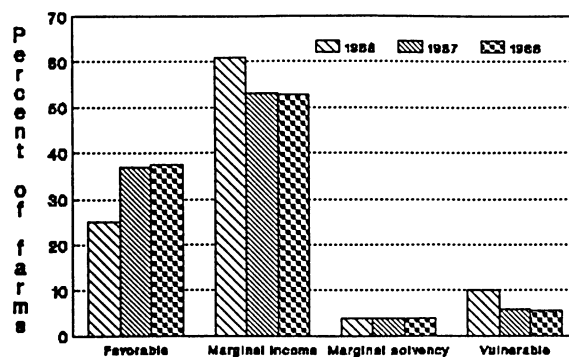


Table 1--Financial performance of Southern Plains States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Oklahoma	36	44	12	8
Texas	37	53	4	6
Southern Plains	37	51	6	6
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	OK	TX	Southern Plains	U.S.
	Acres per farm			
Acres operated 1/	520	840	760	470
	Dollars per farm			
Crop sales	7,700	17,800	15,300	26,200
+ Net CCC loans	200	1,400	1,100	-900
+ Livestock sales	36,400	37,300	37,100	38,100
+ Other farm income	7,000	9,500	8,900	9,000
= Gross cash farm income	51,300	66,000	62,400	72,400
- Total operating expenses	48,500	48,900	48,800	55,000
= Net cash farm income	2,800	17,100	13,600	17,400
Nonfarm income	27,200	48,400	43,200	28,900
Net worth	191,700	395,000	345,000	311,300
	Ratio			
Debt/asset	0.21	0.08	0.10	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Texas farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	37	53	4	6	100
Economic class:					
Sales above \$250,000	64	12	16	8	100
Sales \$40,000 - \$250,000	62	24	8	6	100
Sales below \$40,000	31	61	3	5	100
Type of farm:					
Cash grain	60	22	d	d	100
Other crops	46	33	11	10	100
Beef, hogs, and sheep	34	59	2	5	100
Other livestock and poultry	38	53	d	d	100
Operating:			Acres per farm		
Acres owned	620	300	220	220	420
Acres operated	1,190	550	1,070	1,020	840
Operator age	54	55	Years	40	54
Financial:			Dollars per farm		
Crop sales	30,900	3,800	84,300	16,200	17,800
+ Net CCC loans	3,500	-200	5,500	300	1,400
+ Livestock sales	60,200	10,800	163,100	48,100	37,300
+ Other farm income	12,400	1,500	95,000	4,500	9,500
= Gross cash farm income	107,000	15,900	347,900	69,100	66,000
- Cash operating expenses	63,500	26,400	128,300	108,100	48,900
= Net cash farm income	43,500	-10,500	219,600	-39,000	17,100
Nonfarm income	30,700	64,900	22,000	28,500	48,400
Total assets	495,400	420,800	240,500	204,800	429,400
Total debt	29,400	17,000	166,700	138,300	34,400
Ratios:			Ratio		
Debt/asset	0.06	0.04	0.69	0.68	0.08
Return on assets	.05	-.03	.39	-.10	.01
Cash expenses/gross income	.59	1.66	.37	1.57	.74
Interest/gross income	.03	.13	.03	.14	.05

d = Data insufficient for disclosure.

Farms with gross sales under \$40,000 were more likely to have negative net cash income than farms with higher gross sales. These farms are normally considered to be non-commercial operations and more dependent on off-farm sources of income. Farms in the largest economic class had the highest percentage of both favorable and vulnerable farms.

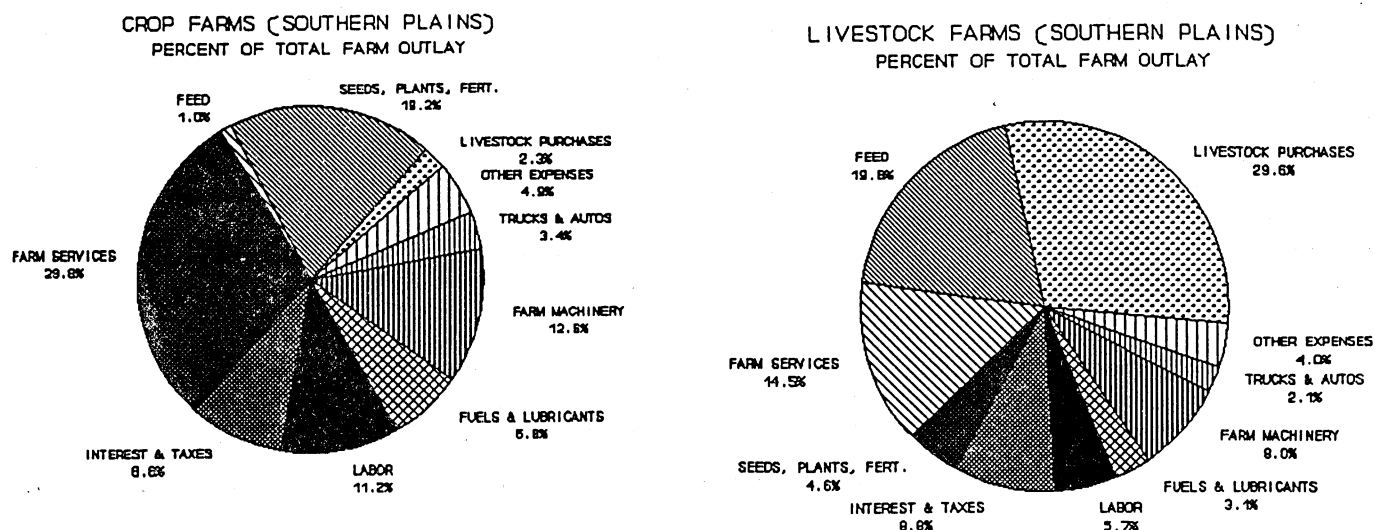
At the end of 1988, cash grain farms with 60 percent categorized as favorable were in a stronger financial position than the combination of all other crop farms. Crop farms in general were more likely to have high debt than livestock farms.

The average size of farms and ranches in Texas was 840 acres, up 60 acres from 1987. Farm operators owned about half of total land operated. In 1988, the average age of Texas farm operators was 54 years.

Both land tenure and operator age varied by financial position. Farms in the marginal income category operated the smallest acreage, but owned the largest portion at 54 percent. In contrast, only 1 in 5 of the over 1,000 acres operated by marginally solvent and vulnerable farms was owned by the operator. Operators of these high-debt farms were also between 10 and 15 years younger than other farmers.

Vulnerable farms, because of crop failure or other marketing factors were unable to generate sufficient income to cover all expenses, despite having similar levels of expenses, debt, and assets with other high debt farms. These farms earned an average nonfarm income of \$28,500 which would help alleviate some, but not all of their farm business losses. Marginally solvent farms, on the other hand, had the highest average net cash income and return on assets.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Southern Plains region total \$12.7 billion in 1988, up 51 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Major increases in all categories contributed to this increase in expenditures. Expenditures by livestock farms at \$8.5 billion were 67 percent of the total regional

expenditures compared to 69 percent in 1987. Major expense items on livestock farms were livestock and poultry (30 percent), feed (20 percent), and farm services (14 percent). Crop farm expenditures total \$4.2 billion, 33 percent of the regional expenses. Over one-half of the crop farm expenses in these States were for farm services (30 percent), farm machinery (13 percent), and labor (11 percent).

Table 4--Selected production expenditures by type of farm, 1988

Southern Plains (OK AND TX)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	4,171,514	8,522,313	12,693,827	118,361,751
Livestock & poultry	94,018	2,525,769	2,619,787	13,607,228
Feed	42,923	1,668,563	1,711,486	17,914,533
Farm services	1,245,122	1,234,029	2,479,151	24,630,395
Ag. chemicals & sprays	174,559	51,056	225,615	3,858,857
Fertilizer	338,358	255,464	593,822	6,957,661
Interest	272,142	534,425	806,567	8,365,499
Taxes (property & real estate)	94,731	216,631	311,362	3,927,991
Labor	466,163	489,903	956,066	10,224,049
Fuels & lubricants	284,549	259,667	544,216	4,450,295
Farm supplies	92,490	89,048	181,538	2,249,336
Building & fencing	46,391	192,230	238,621	2,226,172
Farm & land improvements	47,958	50,653	98,611	943,058
Total farm machinery	523,885	684,017	1,207,902	11,501,269
Seeds	289,913	82,683	372,596	3,692,164
Trucks & autos	141,473	179,390	320,863	2,058,496
Other unallocated expenses	16,839	8,786	25,625	1,754,751

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### **In this report...**

The overall financial condition of Texas farm operators was unchanged from 1987, although average net cash farm income was higher, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Ohio Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

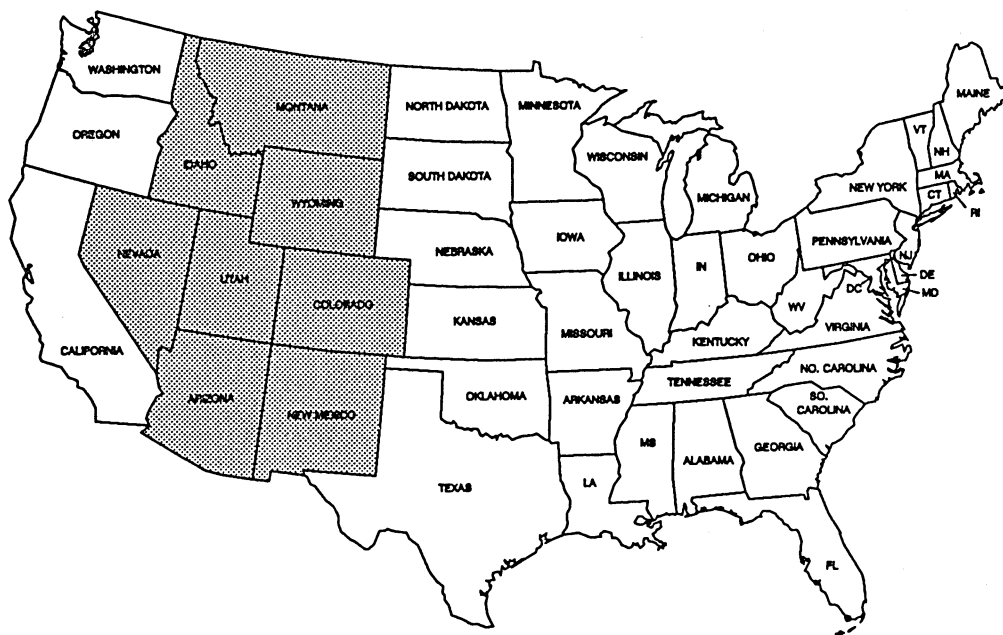
### **For additional information...**

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# MOUNTAIN



According to the 1988 FCRS there were 96,400 farm and ranch operators in the Mountain region which represented 6 percent of all U.S. farms. The majority (59 percent) of farms were considered livestock operations with the most common being beef, hog, and sheep producers. Other field crops, and cash grains represented the majority of crop farms at 55 and 30 percent, respectively. Nearly two-thirds had gross sales below \$40,000 which was similar to the U.S. distribution. Forty percent of farms operated less than 100 acres, while at the other extreme, over 20 percent had farms or ranches of at least 1,000 acres. One-half of farm or ranch operators owned all of the land they farmed. Full tenants represented 8 percent of farms and the remaining 40 percent were partial owners of the total land they farmed in 1988. The Mountain region had the highest concentration of corporate farms (6 percent) and one of the highest concentrations of partnerships (7 percent) resulting in the lowest percentage of individually organized farms of any region.

An estimated 7 percent of total land operated in the Mountain region was devoted to cropland (the lowest of any region), 56 percent to pasture, 2 percent was idle under Government programs, and the remainder went for summer fallow, woodlands or some other use. Farm or ranch operators in Mountain region accounted for 9 percent of U.S. livestock sales and 7 percent of total crop sales in 1988. The highest ranking crops, in terms of gross sales, were sugarbeets and other specialty crops (19 percent), wheat (20 percent), and corn, barley, oats, and sorghum (14 percent). Cattle and milk and dairy products were the predominant livestock commodities accounting for 67 and 22 percent of all livestock sales, respectively. Twenty-eight percent of farms participated in Government programs, representing 6 percent of total U.S. payments. The typical farm or ranch operator in the Mountain region was 53 years old and spent 33 hours per week working on the farm. Nearly 60 percent of survey respondents indicated that farming was their primary occupation in 1988. More than 85 percent of farmers and their households reported earning nonfarm income, representing 5 percent of U.S. farm operator household off-farm income.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Colorado

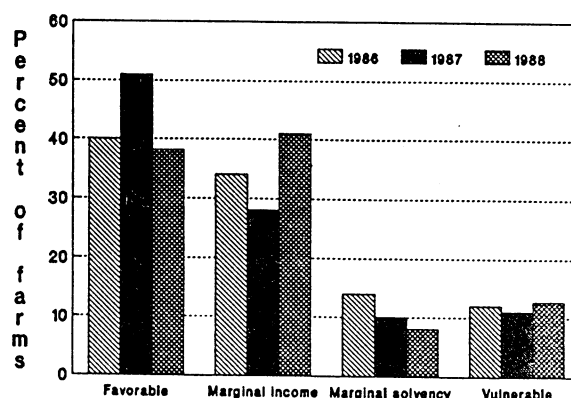
U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Colorado's overall farm financial position registered a marked improvement during 1988. The average debt/asset ratio of Colorado farms and ranches declined from 0.22 in 1987 to 0.13 in 1988, while substantial improvements were noted in average net worth and non-farm income. Colorado's farmers and ranchers escaped the drought that plagued much of the nation in 1988 and were able to take advantage of the highest commodity prices in recent years.

Both gross and net cash income increased dramatically in Colorado, due to an increase in livestock sales of over \$30,000 per farm from the 1987 levels. Gross cash income averaged \$130,500 per operation and net incomes averaged \$28,500. Both were well above the national average of \$72,400 and \$17,400, respectively. Net worth rose by \$107,600 and non-farm income rose by \$11,300 per farm.

Most other parts of the region had both lower farm incomes and lower nonfarm income. These other States also had a lower percentage of farms with high debt. The region's average gross and net farm incomes were above the U.S. average, as was average net worth.

Figure 1--Colorado farm financial position



A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Table 1--Financial performance of Mountain States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Colorado	38	41	8	13
Idaho	46	41	6	7
Mt, Wy, Ut	55	30	6	9
Nv, Az, NM	42	46	6	6
Mountain	46	38	7	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	CO	ID 1/	MT, WY, UT	NV, AZ, NM	Mountain 1/	U.S.
Acres per farm						
Acres operated 2/	1,080	440	2,370	1,880	1,460	470
Dollars per farm						
Crop sales	29,400	51,500	20,800	38,100	33,500	26,200
+ Net CCC loans	0	-500	-1,600	500	-600	-900
+ Livestock sales	72,600	45,600	53,900	69,800	59,500	38,100
+ Other farm income	28,500	8,500	13,900	12,600	16,400	9,000
= Gross cash farm income	130,500	105,100	87,000	121,000	108,800	72,400
- Total operating expenses	102,000	75,100	66,400	100,500	83,800	55,000
= Net cash farm income	28,500	30,000	20,600	20,500	25,000	17,400
Nonfarm income	30,800	22,800	24,200	37,900	27,800	28,900
Net worth	549,200	297,500	473,300	1,191,600	566,700	311,300
Ratio						
Debt/asset	0.13	0.20	0.15	0.07	0.12	0.13

1/ Numbers were revised.

2/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics for Colorado farms by income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	38	41	8	13	100
Economic class:					
Sales above \$250,000	56	6	17	21	100
Sales \$40,000-\$250,000	69	16	12	3	100
Sales below \$40,000	25	54	6	15	100
Type of farm:					
Cash grain	58	26	12	4	100
Other crops	40	31	4	26	100
Beef, hogs, and sheep	34	50	9	6	100
Other livestock and poultry	16	44	7	32	100
			<u>Acres per farm</u>		
Operating:					
Acres owned	1,010	480	290	220	630
Acres operated	1,920	520	1,060	340	1,080
			<u>Years</u>		
Operator age	54	57	43	44	53
			<u>Dollars per farm</u>		
Financial:					
Crop sales	52,300	5,300	62,600	16,300	29,400
+ Net CCC loans	900	-500	-900	-600	0
+ Livestock sales	117,400	9,000	227,100	41,700	72,600
+ Other farm income	20,700	42,400	27,900	7,500	28,500
= Gross cash farm income	191,300	56,200	316,800	65,000	130,500
- Cash operating expenses	102,700	85,200	210,500	83,600	102,000
= Net cash farm income	88,600	-29,000	106,300	-18,600	28,500
Nonfarm income	26,200	32,600	41,600	32,000	30,800
Total assets	584,400	827,200	377,700	279,600	628,400
Total debt	73,000	33,900	225,800	149,500	79,200
			<u>Ratio</u>		
Ratios:					
Debt/asset	0.12	0.04	0.60	0.53	0.13
Return on assets	.08	.04	.16	.02	.06
Cash expenses/gross income	.54	1.52	.66	1.29	.78
Interest/gross income	.04	.06	.06	.28	.06

Colorado farms averaged 1,080 acres, 480 acres less than in 1987. An average 58 percent of these acres were owned by the farm operator. Farm size ranged from 340 acres for farms in a vulnerable financial position to 1,920 acres in the favorable position. The average age of the farm operator was 53 years with the marginal income farms having the oldest operators (57 years) and the marginal solvency farms, the youngest (43 years).

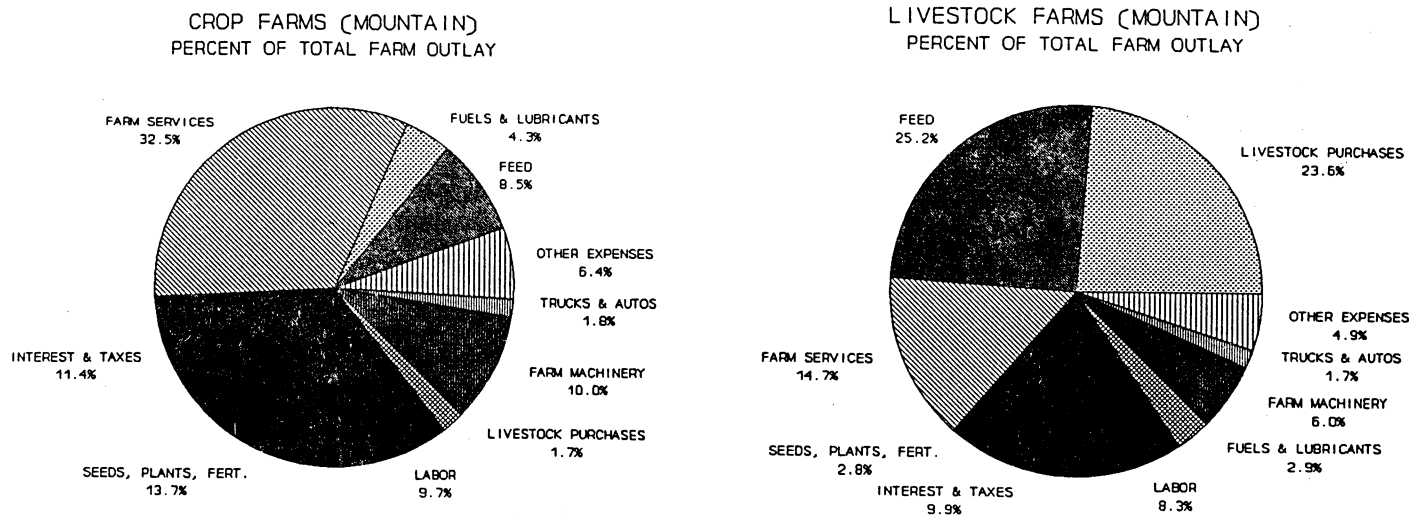
The middle sales class of \$40,000 to \$250,000 had the highest percent of farms in a favorable financial position, followed closely by the largest sales class. Many farms in both classes, however, were carrying high debt levels. The lowest percent of high-debt farms were found in the \$40,000 to \$250,000 sales class.

The type of farm had a major influence on financial position. About an equal percent of cash grain farms were classified with low debt as were beef, hogs, and

sheep operations. There was a wide percentage margin between farm type for both the favorable farms and the marginal income farms. The highest percent of favorable farms (58) were those specializing in cash grains. At the other end, the highest percent of vulnerable farms (39) were those specializing in other livestock and poultry.

Farms in the favorable category were nearly twice as large as farms in any other category. The highest incomes, however, were those for the marginal solvency farms and ranches. For this latter group, gross cash income averaged \$316,800, over 1.5 times the level of the favorable farms and nearly 2.5 times the regional average. Even with cash expenses of \$210,500, their net farm income averaged \$106,300, the highest of any financial category. The interest expense of these high-debt farms was only 6 cents per dollar of gross income, the same as for the region over all.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Mountain region totaled \$9.9 billion, up 19 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures for farm services, feed, livestock and poultry, taxes, trucks & autos, farm supplies, building and fencing, and farm and land improvements

were only partial offset by declines in other major categories. Expenditures by livestock farms at \$5.9 billion were 59 percent of the total regional expenses compared to 48 percent in 1987. Major expenses for livestock farms were feed (25 percent), livestock & poultry (24 percent), and farm services (15 percent). Over one-half of the expenses on crop farms were farm services (32 percent), and farm machinery and labor (both at 10 percent).

Table 4--Selected production expenditures by type of farm, 1988

Mountain (AZ, CO, ID, MT, NV, NM, UT AND WY)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,997,417	5,861,486	9,858,903	118,361,751
Livestock & poultry	66,670	1,385,155	1,451,825	13,607,228
Feed	339,726	1,475,599	1,815,325	17,914,533
Farm services	1,299,069	859,718	2,158,787	24,630,395
Ag. chemicals & sprays	133,177	44,472	177,649	3,858,857
Fertilizer	260,237	82,125	342,362	6,957,661
Interest	344,125	441,187	785,312	8,365,499
Taxes (property & real estate)	113,259	139,700	252,959	3,927,991
Labor	386,384	487,227	873,611	10,224,049
Fuels & lubricants	171,264	170,109	341,373	4,450,295
Farm supplies	67,163	101,377	168,540	2,249,336
Building & fencing	41,673	110,358	152,031	2,226,172
Farm & land improvements	72,055	52,338	124,393	943,058
Total farm machinery	401,248	354,894	756,142	11,501,269
Seeds	153,851	35,710	189,561	3,692,164
Trucks & autos	73,883	100,995	174,878	2,058,496
Other unallocated expenses	73,631	20,521	94,152	1,754,751

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### **In this report...**

Colorado's overall farm financial position registered a marked improvement during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Colorado Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Idaho

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Financial conditions of Idaho farms and ranches in 1988 were similar to those for all U.S. farms. Forty-six percent of farms were regarded as being in a favorable financial position, while only 7 percent were financial vulnerable due to a combination of negative net income and high debt. The majority of the remaining farms had difficulties generating positive income rather than problems associated with high debt.

Idaho farms and ranches had average gross cash income of \$105,100 and expenses of \$75,100 resulting in average net cash income of \$30,000. Livestock and crops sales contributed a more equal portion of gross farm income than in other regions. Nonfarm income, at \$22,800, was lower than for any other State or combination of States in the region and about \$6,000 less than for all U.S. farms. Idaho farms had the highest average debt/asset ratio and lowest net worth reflecting their smaller land base and heavier use of debt financing.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Figure 1--Idaho farm financial position

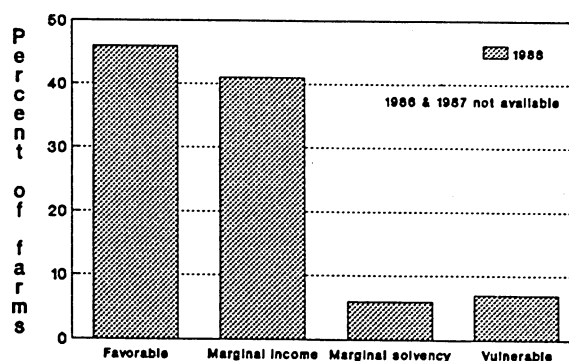


Table 1--Financial performance of Mountain States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
Percent of farms				
Colorado	38	41	8	13
Idaho	46	41	6	7
Mt, Wy, Ut	55	30	6	9
Nv, Az, NM	42	46	6	6
Mountain	46	38	7	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	CO	ID 1/	MT, WY, UT	NV, AZ, NM	Mountain 1/	U.S.
Acres per farm						
Acres operated 2/	1,080	440	2,370	1,880	1,460	470
Dollars per farm						
Crop sales	29,400	51,500	20,800	38,100	33,500	26,200
+ Net CCC loans	0	-500	-1,600	500	-600	-900
+ Livestock sales	72,600	45,600	53,900	69,800	59,500	38,100
+ Other farm income	28,500	8,500	13,900	12,600	16,400	9,000
= Gross cash farm income	130,500	105,100	87,000	121,000	108,800	72,400
- Total operating expenses	102,000	75,100	66,400	100,500	83,800	55,000
= Net cash farm income	28,500	30,000	20,600	20,500	25,000	17,400
Nonfarm income	30,800	22,800	24,200	37,900	27,800	28,900
Net worth	549,200	297,500	473,300	1,191,600	566,700	311,300
Ratio						
Debt/asset	0.13	0.20	0.15	0.07	0.12	0.13

1/ Numbers were revised.

2/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Idaho farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	46	41	6	7	100
Economic class:					
Sales above \$250,000	61	14	20	4	100
Sales \$40,000-\$250,000	57	22	15	6	100
Sales below \$40,000	41	51	d	d	100
Type of farm:					
Cash grain	55	39	d	d	100
Other crops	76	6	15	3	100
Beef, hog, sheep	27	63	d	d	100
Other livestock and poultry	42	38	20	0	100
			Acres		
Operating:					
Acres owned	380	170	230	320	280
Acres operated	520	320	580	540	440
			Years		
Operator age	57	49	43	41	52
			Dollars per farm		
Financial:					
Crop sales	72,700	7,000	207,600	5,400	51,500
+ Net CCC loans	-500	200	-4,800	d	-500
+ Livestock sales	41,700	12,100	287,700	20,100	45,600
+ Other farm income	12,900	2,000	17,900	d	8,500
= Gross cash farm income	126,800	21,300	508,500	32,700	105,100
- Cash operating expenses	67,400	30,700	400,400	56,100	75,100
= Net cash farm income	59,300	-9,400	108,100	-23,500	30,000
Nonfarm income	19,300	22,500	48,300	22,000	22,800
Total assets	477,100	229,000	558,400	274,700	370,200
Total debt	47,500	33,100	365,500	195,600	72,700
			Ratio		
Ratios:					
Debt/asset	0.10	0.14	0.65	0.71	0.20
Return on assets	.06	-.02	.12	.03	0.04
Cash expenses/gross income	.53	1.44	.79	1.72	0.71
Interest/gross income	.05	.16	.05	.38	0.07

d = Data insufficient for disclosure.

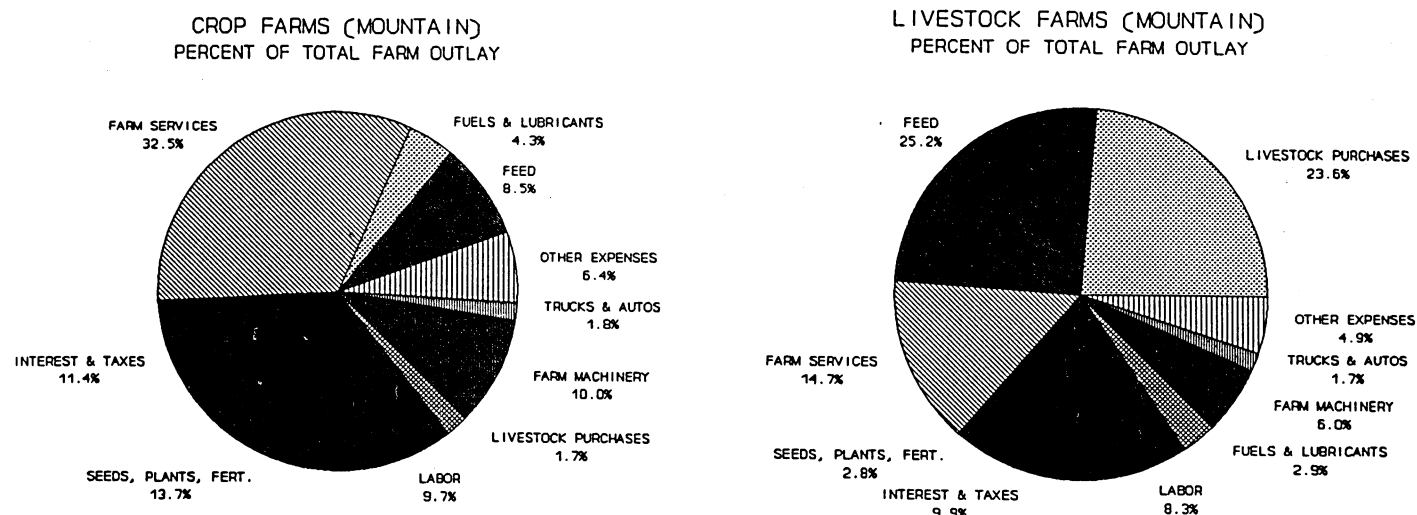
Financial performance generally improved as gross sales became higher with the proportion of favorable farms increasing from 41 percent for farms with sales under \$40,000 to 62 percent for those with gross sales above \$250,000. Farms in the largest economic class were more likely to have high debt, while in the smallest economic class there was a higher incidence of negative incomes.

Farms that specialized in crops other than cash grains had the strongest financial performance among farm type with more than 3 out of 4 in a favorable financial position. The lowest share of favorable farms occurred for produces of beef, hogs, or sheep. Many of these farms and ranches had negative net cash incomes, but low debt.

Idaho farms and ranches averaged 440 acres. Nearly 40 percent of total acres operated were rented. Farms in the marginal income category operated the least amount of acreage, while favorable farms owned the largest portion of operated land. The average age of Idaho farm operators in 1988 was 52 years. Operator age varied considerably by financial status. Vulnerable farms were run by the youngest operators at an average age of 41 years, while those in a favorable financial position had operators with an average age of 57 years.

Farms with negative incomes had much lower gross cash farm income than did other farms, yet their farm losses were at least partially offset by nonfarm earnings. Marginally solvent farms had both the highest average net cash income and nonfarm income.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Mountain region totaled \$9.9 billion, up 19 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures for farm services, feed, livestock and poultry, taxes, trucks & autos, farm supplies, building and fencing, and farm and land improvements

were only partial offset by declines in other major categories. Expenditures by livestock farms at \$5.9 billion were 59 percent of the total regional expenses compared to 48 percent in 1987. Major expenses for livestock farms were feed (25 percent), livestock & poultry (24 percent), and farm services (15 percent). Over one-half of the expenses on crop farms were farm services (32 percent), and farm machinery and labor (both at 10 percent).

Table 4--Selected production expenditures by type of farm, 1988

Mountain (AZ, CO, ID, MT, NV, NM, UT AND WY)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
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Total farm production expenditures	3,997,417	5,861,486	9,858,903	118,361,751
Livestock & poultry	66,670	1,385,155	1,451,825	13,607,228
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Farm services	1,299,069	859,718	2,158,787	24,630,395
Ag. chemicals & sprays	133,177	44,472	177,649	3,858,857
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Farm supplies	67,163	101,377	168,540	2,249,336
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Total farm machinery	401,248	354,894	756,142	11,501,269
Seeds	153,851	35,710	189,561	3,692,164
Trucks & autos	73,883	100,995	174,878	2,058,496
Other unallocated expenses	73,631	20,521	94,152	1,754,751



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### **In this report...**

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### **For additional information...**

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Montana, Wyoming, and Utah

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall, the financial condition of farms located in Montana, Wyoming, and Utah surpassed those of any other State or combination of States in the Mountain region during 1988. An estimated 55 percent of farms were considered in a favorable financial position. This was nearly 10 percentage points higher than the share estimated for either the Mountain region or for all U.S. farms. At the opposite extreme, 9 percent of farms were regarded as financially vulnerable due to a combination of negative net income and high debt. The only other state with a higher share of vulnerable farms was Colorado.

When combined, these three States had the lowest average gross cash income and operating expenses in the region and as a result had one of the lowest average net cash incomes at \$20,600. Only Idaho had a higher average debt/asset ratio, yet only 15 percent of farms had debt that represented more than 40 percent of assets. The average net worth of \$473,300 was over \$150,000 higher than the average for all U.S. farms.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Figure 1--MT, WY, and UT farm financial position

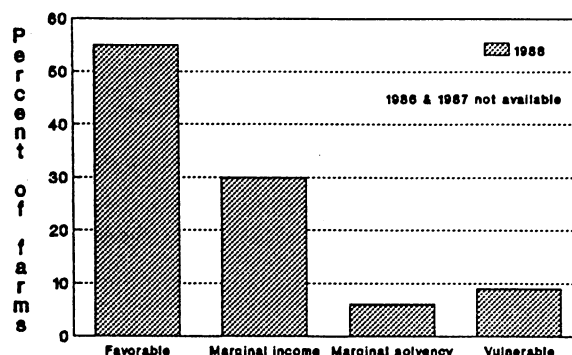


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	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
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Idaho	46	41	6	7
Mt, Wy, Ut	55	30	6	9
Nv, Az, NM	42	46	6	6
Mountain	46	38	7	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	CO	ID 1/	MT, WY, UT	NV, AZ, NM	Mountain 1/	U.S.
<u>Acres per farm</u>						
Acres operated 2/	1,080	440	2,370	1,880	1,460	470
<u>Dollars per farm</u>						
Crop sales	29,400	51,500	20,800	38,100	33,500	26,200
+ Net CCC loans	0	-500	-1,600	500	-600	-900
+ Livestock sales	72,600	45,600	53,900	69,800	59,500	38,100
+ Other farm income	28,500	8,500	13,900	12,600	16,400	9,000
= Gross cash farm income	130,500	105,100	87,000	121,000	108,800	72,400
- Total operating expenses	102,000	75,100	66,400	100,500	83,800	55,000
= Net cash farm income	28,500	30,000	20,600	20,500	25,000	17,400
Nonfarm income	30,800	22,800	24,200	37,900	27,800	28,900
Net worth	549,200	297,500	473,300	1,191,600	566,700	311,300
<u>Ratio</u>						
Debt/asset	0.13	0.20	0.15	0.07	0.12	0.13

1/ Numbers were revised.

2/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Montana, Wyoming, and Utah farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	55	30	6	9	100
Economic class:					
Sales above \$250,000	82	6	9	3	100
Sales \$40,000-\$250,000	67	14	15	4	100
Sales below \$40,000	46	42	0	12	100
Type of farm:					
Cash grain	70	d	d	17	100
Other crops	38	53	6	3	100
Beef, hogs, and sheep	58	30	5	7	100
Other livestock and poultry	42	15	15	28	100
			Acres per farm		
Operating:					
Acres owned	2,360	740	2,110	750	1,730
Acres operated	3,070	980	3,240	1,830	2,370
			Years		
Operator age	53	55	48	45	53
			Dollars per farm		
Financial:					
Crop sales	24,300	4,300	73,000	15,600	20,800
+ Net CCC loans	-1,700	-200	-3,200	-4,900	-1,600
+ Livestock sales	74,300	19,100	69,400	28,100	53,900
+ Other farm income	17,800	1,700	40,700	10,500	13,900
= Gross cash farm income	114,700	24,900	179,900	49,300	87,000
- Cash operating expenses	66,700	57,100	102,800	69,300	66,400
= Net cash farm income	48,000	-32,200	77,100	-20,000	20,600
Nonfarm income	18,900	36,800	14,300	22,600	24,200
Total assets	669,100	435,300	553,300	222,500	555,300
Total debt	64,500	32,600	355,100	161,800	82,000
			Ratio		
Ratios:					
Debt to asset	0.10	0.07	0.64	0.73	0.15
Return on assets	0.05	-0.05	0.08	-0.07	0.03
Cash expenses/gross income	0.58	2.29	0.57	1.41	0.76
Interest/gross income	0.07	0.15	0.13	0.28	0.09

d = Data insufficient for disclosure.

Financial performance was directly related with farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 82 percent and fell to 46 percent for farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms, however these farms are normally regarded as part-time operation that are more dependent on off-farm sources of income.

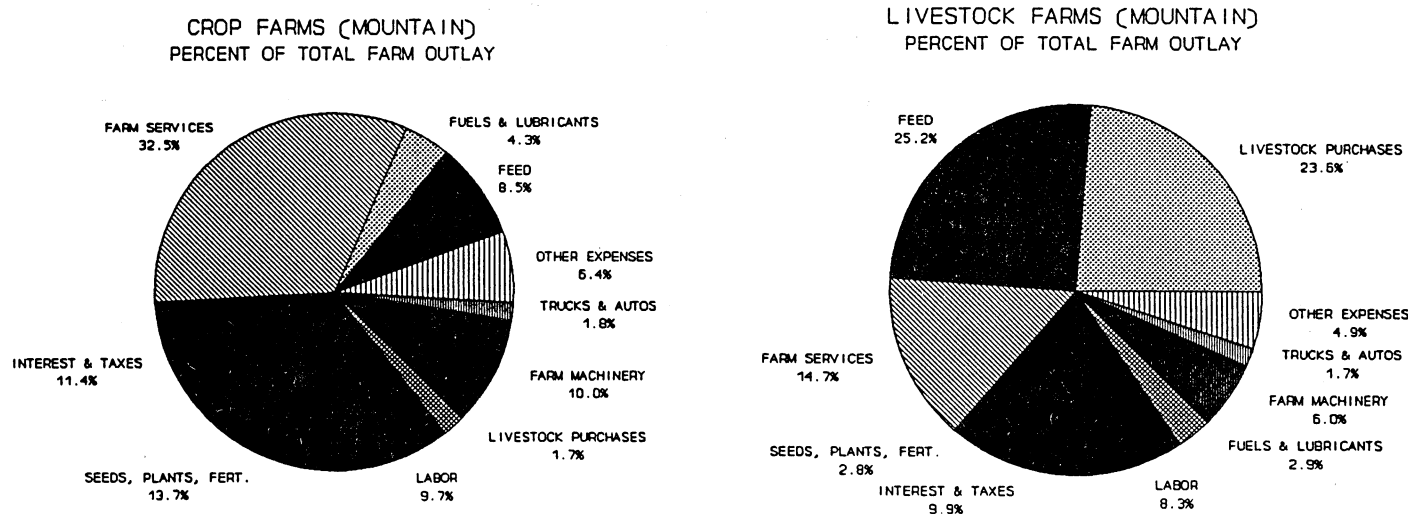
Cash grain farms had the highest proportion in a favorable financial position when compared with other farm types. These farms also had a large share in the vulnerable category indicating the diversity of financial circumstances that existed during 1988. Beef, hog or sheep producers had a stronger overall financial performance than did farms that specialized in the production other types of livestock.

Farms in Montana, Wyoming, and Utah together averaged over 2,000 acres which was larger than

most farms or ranches in the country. Nearly 3 out of 4 of these acres were owned by farm operators in 1988. The average age of farm operators in these States was 53 years. Acres operated, land tenure, and operator age varied considerably by financial status. Farms in a vulnerable financial position were run by the youngest operators and rented the largest portion of total land operated. The largest amount of acreage operated was by marginally solvent farms, while farms in the marginal income category were the smallest in terms of acreage and had the oldest farm operators.

Marginally solvent farms had the highest gross cash income, net cash income and return on assets pointing out that high levels of debt can be successfully managed to provide adequate returns to the farm operation. Marginal income and vulnerable operations both ended 1988 with cash deficits from their farming operations, yet their households earned sufficient income from nonfarm sources to cover these losses.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Mountain region totaled \$9.9 billion, up 19 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures for farm services, feed, livestock and poultry, taxes, trucks & autos, farm supplies, building and fencing, and farm and land

improvements were only partial offset by declines in other major categories. Expenditures by livestock farms at \$5.9 billion were 59 percent of the total regional expenses compared to 48 percent in 1987. Major expenses for livestock farms were feed (25 percent), livestock & poultry (24 percent), and farm services (15 percent). Over one-half of the expenses on crop farms were farm services (32 percent), and farm machinery and labor (both at 10 percent).

Table 4--Selected production expenditures by type of farm, 1988

Mountain (AZ, CO, ID, MT, NV, NM, UT AND WY)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,997,417	5,861,486	9,858,903	118,361,751
Livestock & poultry	66,670	1,385,155	1,451,825	13,607,228
Feed	339,726	1,475,599	1,815,325	17,914,533
Farm services	1,299,069	859,718	2,158,787	24,630,395
Ag. chemicals & sprays	133,177	44,472	177,649	3,858,857
Fertilizer	260,237	82,125	342,362	6,957,661
Interest	344,125	441,187	785,312	8,365,499
Taxes (property & real estate)	113,259	139,700	252,959	3,927,991
Labor	386,384	487,227	873,611	10,224,049
Fuels & lubricants	171,264	170,109	341,373	4,450,295
Farm supplies	67,163	101,377	168,540	2,249,336
Building & fencing	41,673	110,358	152,031	2,226,172
Farm & land improvements	72,055	52,338	124,393	943,058
Total farm machinery	401,248	354,894	756,142	11,501,269
Seeds	153,851	35,710	189,561	3,692,164
Trucks & autos	73,883	100,995	174,878	2,058,496
Other unallocated expenses	73,631	20,521	94,152	1,754,751

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### **In this report...**

Overall, the financial condition of farms located in Montana, Wyoming, and Utah surpassed those of any other State or combination of States in the Mountain region during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Agricultural Statistics Service's located in Montana, Wyoming, and Utah as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

Requests for additional information should be directed to the State Statistician in your local Agricultural Statistical Service office. *Other publications on farm economic data will be available later this year.*

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Nevada, Arizona, and New Mexico

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

There was considerable improvement in the financial conditions of farm and ranches located in Nevada, Arizona, and New Mexico during 1988. An estimated 42 percent of farms were in a favorable financial position compared with 27 percent the previous two years. The number of farms in a vulnerable financial position fell from a high of 14 percent in 1987 to 6 percent at the end of 1988.

Average net cash farm income for these States increased by over \$16,000 reflecting higher livestock sales and lower operating expenses. The share of farms with negative net income declined from over 70 percent in 1987 to 52 percent. Farm households in these States continued to earn the highest average nonfarm income in the Mountain region at \$37,900 which was almost \$10,000 higher than for all U.S. farms.

Improvements were also evident in farm operator balance sheets. The average debt/asset ratio declined from 0.11 to 0.07, while average net worth increased by over \$400,000. In addition the proportion of farms with high debt decreased by 4 percentage points.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--NV, AZ, and NM farm financial position

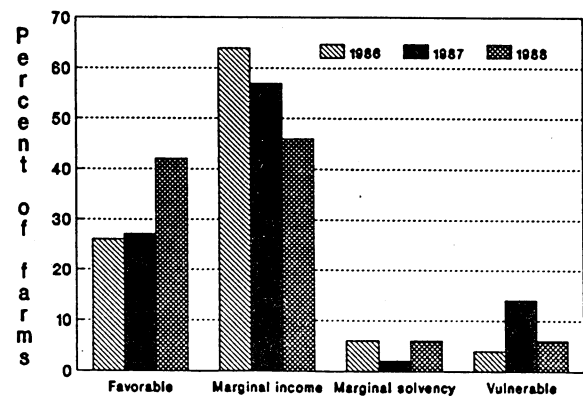


Table 1--Financial performance of Mountain States

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
Colorado	38	41	8	13
Idaho	46	41	6	7
Mt, Wy, Ut	55	30	6	9
Nv, Az, Nm	42	46	6	6
Mountain	46	38	7	9
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	CO	ID 1/	MT, WY, UT	NV, AZ, NM	Mountain 1/	U.S.
Acres per farm						
Acres operated 2/	1,080	440	2,370	1,880	1,460	470
Dollars per farm						
Crop sales	29,400	51,500	20,800	38,100	33,500	26,200
+ Net CCC loans	0	-500	-1,600	500	-600	-900
+ Livestock sales	72,600	45,600	53,900	69,800	59,500	38,100
+ Other farm income	28,500	8,500	13,900	12,600	16,400	9,000
= Gross cash farm income	130,500	105,100	87,000	121,000	108,800	72,400
- Total operating expenses	102,000	75,100	66,400	100,500	83,800	55,000
= Net cash farm income	28,500	30,000	20,600	20,500	25,000	17,400
Nonfarm income	30,800	22,800	24,200	37,900	27,800	28,900
Net worth	549,200	297,500	473,300	1,191,600	566,700	311,300
Ratio						
Debt/asset	0.13	0.20	0.15	0.07	0.12	0.13

1/ Numbers were revised.

2/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Nevada, Arizona, and New Mexico farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	42	46	6	6	100
Economic class:					
Sales above \$250,000	65	19	12	4	100
Sales \$40,000-\$250,000	54	18	21	7	100
Sales below \$40,000	37	56	d	d	100
Type of farm:					
Cash grain	80	0	20	0	100
Other crops	47	41	9	3	100
Beef, hogs, and sheep	36	52	2	10	100
Other livestock and poultry	43	55	d	d	100
			Acres per farm		
Operating:					
Acres owned	2,370	540	350	1,690	1,370
Acres operated	2,880	1,030	910	2,430	1,880
			Years		
Operator age	52	54	42	47	52
			Dollars per farm		
Financial:					
Crop sales	58,900	8,200	132,100	33,900	38,100
+ Net CCC loans	1,100	-200	1,900	-500	500
+ Livestock sales	103,600	20,400	156,000	139,200	69,800
+ Other farm income	17,600	3,100	53,000	14,000	12,600
= Gross cash farm income	181,200	31,500	343,000	186,600	121,000
- Cash operating expenses	110,900	54,800	273,500	229,800	100,500
= Net cash farm income	70,300	-23,300	69,500	-43,200	20,500
Nonfarm income	44,600	34,100	21,000	35,000	37,900
Total assets	2,253,200	573,400	551,200	551,500	1,283,900
Total debt	87,400	36,100	321,200	370,700	92,300
			Ratio		
Ratios:					
Debt/asset	0.04	0.06	0.58	0.67	0.07
Return on assets	0.03	-0.05	0.11	-0.09	0.01
Cash expenses/gross income	0.61	1.74	0.80	1.23	0.83
Interest/gross income	0.04	0.25	0.07	0.16	0.08

d = Data insufficient for disclosure.

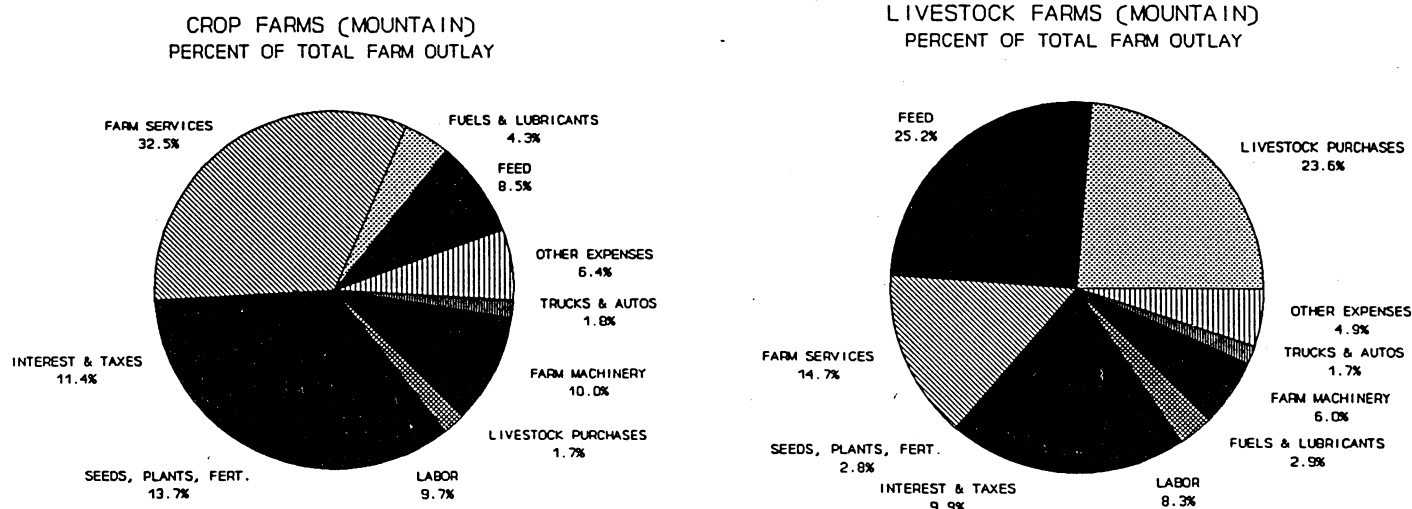
Financial performance was directly related with farm size when measured by gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 65 percent and fell to 37 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms, however these farms are normally regarded as part-time operations that are more dependent on off farm sources of income.

Producers of beef, hogs, or sheep had the greatest financial difficulties when compared with other farm types. They had the lowest percentage of farms in a favorable financial position and the largest share of vulnerable farms. Farms that specialized in the production of cash grains had the highest proportion categorized as favorable among farm types in 1988.

The average farm or ranch in Nevada, Arizona, and New Mexico was 1,880 acres, 560 acres less than a year ago. Farm operators owned nearly 3 out of 4 acres operated. The average age of farm operators in these States was 52 years. Acres operated, land tenure and operator age varied by financial status. Marginally solvent farms had the youngest farm operators, were the smallest in terms of acreage, and rented the largest proportion of total land operated. Favorable farms operated the largest acreage and rented the lowest share of these acres. The oldest farm operators were in the marginal income category.

Favorable farms had the highest average net cash farm income and assets that were 4 times the value of farms in any other financial position. Marginal income farms were largest in terms of gross cash farm income and had the highest return on assets pointing out that high debt can be successfully managed to provide an adequate return to the farming operation.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm production expenditures in the Mountain region totaled \$9.9 billion, up 19 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures for farm services, feed, livestock and poultry, taxes, trucks & autos, farm supplies, building and fencing, and farm and land improvements

were only partial offset by declines in other major categories. Expenditures by livestock farms at \$5.9 billion were 59 percent of the total regional expenses compared to 48 percent in 1987. Major expenses for livestock farms were feed (25 percent), livestock & poultry (24 percent), and farm services (15 percent). Over one-half of the expenses on crop farms were farm services (32 percent), and farm machinery and labor (both at 10 percent).

Table 4--Selected production expenditures by type of farm, 1988

Mountain	Crop	Livestock	All Farms	
(AZ, CO, ID, MT, NV, NM, UT AND WY)	farms	farms	Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	3,997,417	5,861,486	9,858,903	118,361,751
Livestock & poultry	66,670	1,385,155	1,451,825	13,607,228
Feed	339,726	1,475,599	1,815,325	17,914,533
Farm services	1,299,069	859,718	2,158,787	24,630,395
Ag. chemicals & sprays	133,177	44,472	177,649	3,858,857
Fertilizer	260,237	82,125	342,362	6,957,661
Interest	344,125	441,187	785,312	8,365,499
Taxes (property & real estate)	113,259	139,700	252,959	3,927,991
Labor	386,384	487,227	873,611	10,224,049
Fuels & lubricants	171,264	170,109	341,373	4,450,295
Farm supplies	67,163	101,377	168,540	2,249,336
Building & fencing	41,673	110,358	152,031	2,226,172
Farm & land improvements	72,055	52,338	124,393	943,058
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Seeds	153,851	35,710	189,561	3,692,164
Trucks & autos	73,883	100,995	174,878	2,058,496
Other unallocated expenses	73,631	20,521	94,152	1,754,751



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### **In this report...**

There was considerable improvement in the financial conditions of farm and ranches located in Nevada, Arizona, and New Mexico during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Agricultural Statistics Service's located in Nevada, Arizona, and New Mexico as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

### **For additional information...**

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# PACIFIC



The Pacific region was estimated to have 129,300 farms or ranches in 1988 which represented 7 percent of the U.S. total. The most common production specialties were beef, hogs, or sheep (41 percent) and vegetables, fruit, or nuts (30 percent). Nearly three in four farms had gross sales below \$40,000, but the Pacific region had the largest concentration of farms with more than \$500,000 in gross sales at 5 percent. Seventy percent of farms or ranches were less than 100 acres in size, while 9 percent operated at least 1,000 acres. Two-thirds of farm or ranch operators owned all of the land they operated. Full tenants represented 8 percent of farms and the remaining 26 percent were owner-tenants of the land they farmed in 1988. Eighty-eight percent of farms or ranches were organized as individual operations, 4 percent as corporations, and 8 percent as partnerships.

Twelve percent of total land operated in the Pacific region was devoted to crops, 64 percent to pasture, 3 percent was idle under Government programs, and the remainder went for summer fallow, woodlands, or some other use. Farm or ranch operators in the Pacific region accounted for 8 percent of livestock sales and 18 percent of total crop sales. The highest ranking crops, in terms of gross sales, were fruits and tree nuts (27 percent), nursery and greenhouse items (23 percent), and wheat and rice (11 percent). Milk and dairy products and cattle were the predominant livestock commodities at 52 and 21 percent, respectively. Eleven percent of farms participated in Government agricultural programs, representing 4 percent of total payments. The typical farm or ranch operator was 53 years old and averaged working 28 hours per week on the farm. One-half of all farm operators indicated that farming was their primary occupation. Nearly 90 percent reported earning nonfarm income which represented 11 percent of total farm operators household off-farm earnings.

# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: California

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Overall financial conditions improved for California farm and ranch operators during 1988. The share of farms considered to be in a favorable financial position was unchanged since 1987 at 42 percent, while the proportion categorized as vulnerable fell from 12 to 8 percent.

Much of the improvement in financial performance was associated with improvements in farms' balance sheets. The average debt/asset ratio declined from 0.17 a year ago to 0.12 at the end of 1988. Higher asset values and reductions in debt resulted in a \$150,000 increase in average net worth. At the same time, the portion of farms with high debt fell by 5 percentage points.

Average net cash income also increased since 1987, but there was a lower percentage of farms with positive incomes. As a result, many farms shifted into the marginal income category. California farms continued to earn the highest nonfarm income in the region at \$51,000 and increase of nearly \$12,000 over 1987.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1—California farm financial position

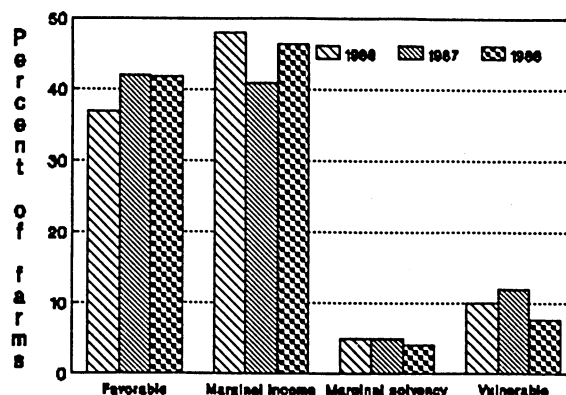


Table 1--Pacific region financial performance, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
California	42	46	4	8
Washington	27	51	3	19
Oregon	32	52	3	13
Pacific	34	49	4	13
U.S.	46	40	7	7

Table 2--Selected average operating and financial characteristics, 1988

	CA	OR	WA	Pacific	U.S.
	Acres per farm				
Acres operated 1/	460	830	300	500	470
	Dollars per farm				
Crop sales	97,500	35,200	56,000	67,700	26,200
+ Net CCC loans	800	-300	-800	0	-900
+ Livestock sales	56,400	19,400	19,900	34,900	38,100
+ Other farm income	7,700	6,000	4,600	6,200	9,000
= Gross cash farm income	162,400	60,200	79,700	108,800	72,400
- Total operating expenses	131,400	49,400	54,000	84,900	55,000
= Net cash farm income	31,000	10,800	25,700	24,000	17,400
Nonfarm income	51,000	42,300	39,000	44,800	28,900
Net worth	708,600	408,500	291,700	495,100	311,300
	Ratio				
Debt/asset	0.12	0.13	0.15	0.13	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for California farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	42	46	4	8	100
Economic class:					
Sales above \$250,000	68	13	11	8	100
Sales \$40,000-\$250,000	63	22	10	4	100
Sales below \$40,000	30	61	1	8	100
Type of farm:					
Vegetable, fruit, nursery	51	37	4	7	100
Other crops	42	39	9	10	100
Beef, hogs, and sheep	26	68	2	4	100
Other livestock and poultry	28	54	7	11	100
Operating:			Acres per farm		
Acres owned	510	140	230	90	300
Acres operated	700	230	790	310	460
Operator age	56	54	Years	47	54
Financial:			Dollars per farm		
Crop sales	161,600	23,400	311,200	58,700	97,500
+ Net CCC loans	1,300	300	2,900	-300	800
+ Livestock sales	69,700	11,400	281,500	124,200	56,400
+ Other farm income	8,700	3,300	44,700	6,100	7,700
= Gross cash farm income	241,200	38,400	640,400	188,600	162,400
- Cash operating expenses	157,700	57,700	448,600	248,700	131,400
= Net cash farm income	83,500	-19,200	191,900	-60,100	31,000
Nonfarm income	38,300	64,200	26,700	56,900	51,000
Total assets	1,116,300	582,300	669,200	539,400	809,000
Total debt	73,500	43,900	554,500	336,200	100,400
Ratios:			Ratio		
Debt/asset	0.07	0.08	0.83	0.62	0.12
Return on assets	.04	-.03	.28	-.08	.02
Cash expenses/gross income	.65	1.50	.70	1.32	.81
Interest/gross income	.03	.11	.06	.15	.06

Farms with gross sales under \$40,000 were more likely to have negative net cash farm income than farms with higher gross sales. These small farms are normally regarded as non-commercial, part-time farming operations which are more dependent on off-farm income sources. Farms in the largest economic class had both the highest percentage of favorable farms and the highest proportion of farms with high debt.

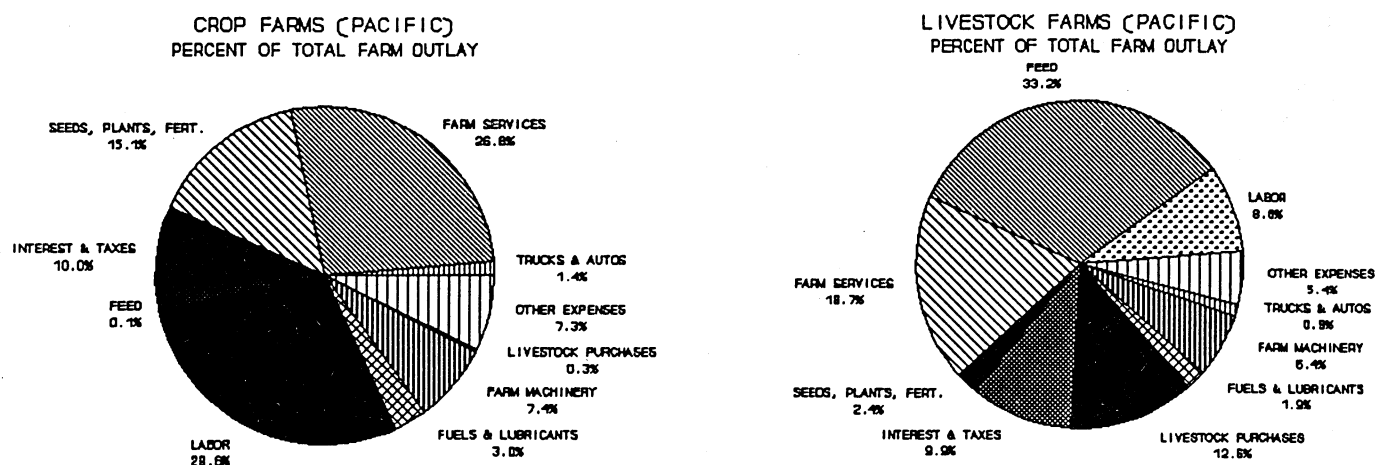
Farms that specialized in the production of vegetables, fruit, nursery and greenhouse products had the strongest financial condition at the end of 1988 when compared to all other farm types. Livestock farms were much more likely to have negative cash income than crops farms.

California farms averaged 460 acres, an increase of 220 acres from last year. On average about one-

third of these acres were rented. In 1988 the average age of California farm operators was 54 years. Land tenure and operator age varied by financial status. Operators of marginally solvent farms were younger, operated the largest farms and owned the lowest share of land operated. Farms in the marginal income category were smallest in terms of acreage operated. Favorable farm operators were the oldest, and owned the largest share of land operated.

Marginally solvent farms had the largest debt/asset ratio, while generating the highest gross cash farm income and net cash income. Both vulnerable and marginal income operators ended 1988 with negative cash incomes from farming but had sufficient nonfarm income on average to cover their farm losses.

Figure 2--Regional Farm Production Expenditures by Farm Type



Farm expenditure expenditures in the Pacific region totaled \$12.4 billion, down 2.8 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures in farm services, taxes, seeds, trucks and autos, and farm and land improvements were offset by decreases in other major items.

Expenditures for crop farms at \$7.9 billion were 63 percent of the total regional expenses, compared to 67 percent in 1987. Over one-half of the expenses on crop farms were labor (29 percent) and farm services (27 percent). Nearly two-thirds of the expenses on livestock farms were feed (33 percent), and farm services (19 percent), and livestock and poultry (13 percent).

Table 4--Selected production expenditures by type of farm, 1988

Pacific (CA, OR AND WA)	Crop farms	Livestock farms	All Farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	7,881,437	4,552,252	12,433,689	118,361,751
Livestock & poultry	21,476	574,116	595,592	13,607,228
Feed	11,204	1,513,500	1,524,704	17,914,533
Farm services	2,111,500	849,284	2,960,784	24,630,395
Ag. chemicals & sprays	388,360	34,922	423,282	3,858,857
Fertilizer	485,656	50,778	536,434	6,957,661
Interest	578,189	317,761	895,950	8,365,499
Taxes (property & real estate)	206,784	134,946	341,730	3,927,991
Labor	2,255,824	389,916	2,645,740	10,224,049
Fuels & lubricants	238,365	88,134	326,499	4,450,295
Farm supplies	332,973	86,604	419,577	2,249,336
Building & fencing	101,368	101,724	203,092	2,226,172
Farm & land improvements	106,273	32,295	138,568	943,058
Total farm machinery	581,533	291,744	873,277	11,501,269
Seeds	319,466	20,967	340,433	3,692,164
Trucks & autos	110,504	41,109	151,613	2,058,496
Other unallocated expenses	31,964	24,450	56,414	1,754,751

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### **In this report...**

Overall financial conditions improved for California farm and ranch operators during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the California Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

NASS production expenditure data in table 4 differ from the Economic Research Service (ERS) total cash operating expense estimates. In tables 1 through 3 the ERS estimates consider only cash expenses necessary for the annual operation of the farm business. Contractual expenses for producing the agricultural commodity on the farm are included in the farm business expense. In general, NASS total farm production expenditures exceed the operator's cash expenses by the amount of landlord expenses and capital purchases.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Oregon

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Compared with all U.S. farms, financial difficulties were more extensive for farms and ranches in Oregon during 1988. One in three farms ended the year with positive net cash farm income and relatively low debt which was considered to be a favorable financial position. At the opposite extreme, 13 percent of farms were in a vulnerable financial position having negative net income and high debt. Within the region, financial conditions of Oregon farms were better than for Washington, but worse than for California farms and ranches in 1988.

Oregon farms had both the lowest average gross cash farm income and net cash farm income in the region at \$60,200 and \$10,800, respectively. However, the average debt/asset ratio of 0.13 was identical to the value for all U.S. farms, while average net worth was nearly \$100,000 higher. Nonfarm income earned by Oregon farm households was also substantially higher than for all U.S. farms.

Figure 1--Oregon farm financial position

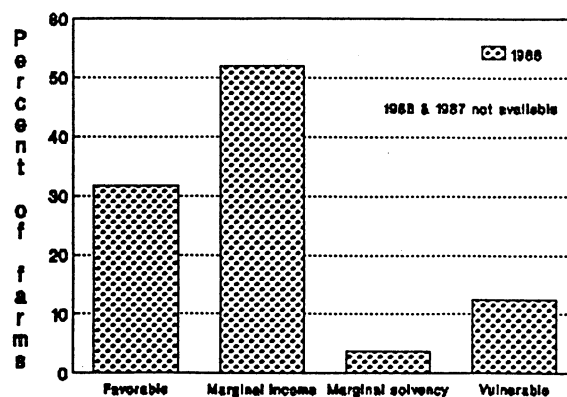


Table 1--Pacific region financial performance, 1988

	Favorable	Marginal Income	Marginal Solvency	Vulnerable
	Percent of farms			
California	42	46	4	8
Washington	27	51	3	19
Oregon	32	52	3	13
Pacific	34	49	4	13
U.S.	46	40	7	7

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as favorable, while those with negative income and low debt are considered in a marginal income position. Those with positive income and high debt are characterized as marginal solvency and those with both negative income and high debt are vulnerable.

Table 2--Selected average operating and financial characteristics, 1988

	CA	OR	WA	Pacific	U.S.
<u>Acres per farm</u>					
Acres operated 1/	460	830	300	500	470
<u>Dollars per farm</u>					
Crop sales	97,500	35,200	56,000	67,700	26,200
+ Net CCC loans	800	-300	-800	0	-900
+ Livestock sales	56,400	19,300	19,900	34,900	38,100
+ Other farm income	7,700	6,000	4,600	6,200	9,000
= Gross cash farm income	162,400	60,200	79,700	108,800	72,400
- Total operating expenses	131,400	49,400	54,000	84,900	55,000
= Net cash farm income	31,000	10,800	25,700	24,000	17,400
Nonfarm income	51,000	42,300	39,000	44,800	28,900
Net worth	708,600	408,500	291,700	495,100	311,300
<u>Ratio</u>					
Debt/asset	0.12	0.13	0.15	0.13	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

Table 3--Average operating and financial characteristics for Oregon farms by income and debt/asset ratio position, 1988

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			Percent		
All farms	32	52	4	12	100
Economic class:					
Sales above \$250,000	86	6	4	4	100
Sales \$40,000-\$250,000	71	12	17	0	100
Sales below \$40,000	21	62	2	15	100
Type of farm:					
Vegetable, fruit, nursery	36	45	d	d	100
Other crops	52	18	26	4	100
Beef, hogs, and sheep	27	61	1	11	100
Other livestock and poultry	29	49	6	16	100
Operating:			Acres per farm		
Acres owned	1,210	280	570	120	570
Acres operated	1,870	340	910	120	830
Operator age	52	56	Years	44	53
Financial:			Dollars per farm		
Crop sales	88,400	4,900	101,400	2,100	35,200
+ Net CCC loans	-500	-300	400	0	-300
+ Livestock sales	42,400	5,700	38,700	10,500	19,300
+ Other farm income	13,200	1,800	19,100	500	6,000
= Gross cash farm income	143,500	12,100	159,600	13,100	60,200
- Cash operating expenses	96,700	21,700	106,300	24,300	49,400
= Net cash farm income	46,800	-9,600	53,300	-11,200	10,800
Nonfarm income	23,400	49,700	11,100	70,800	42,300
Total assets	831,500	315,800	333,100	203,900	467,400
Total debt	51,600	36,300	206,500	124,400	58,900
Ratios:			Ratio		
Debt/asset	0.06	0.11	0.62	0.61	0.13
Return on assets	.04	-.03	.12	0	.02
Cash expenses/gross income	.67	1.80	.67	1.85	.82
Interest/gross income	.04	.31	.14	.47	.09

d = Data insufficient for disclosure.

Financial performance was directly related with farm size in terms of gross sales. The share of farms categorized as favorable was highest for farms with gross sales in excess of \$250,000 at 86 percent, and fell to 21 percent of farms with sales under \$40,000. Farms in the smallest economic class were more likely to have negative net cash farm income than were larger farms, however these farms are normally regarded as part-time operations that are more dependent on off farms sources of income.

Farms that specialized in the production of crops other than vegetables, fruits, nursery or greenhouse products had the strongest financial performance among farm types with the highest percentage of favorable farms and the lowest share in the vulnerable category. Over 70 percent of beef, hog, or sheep farms had negative net cash income at the end of 1988 which was higher than for any other type of farm category.

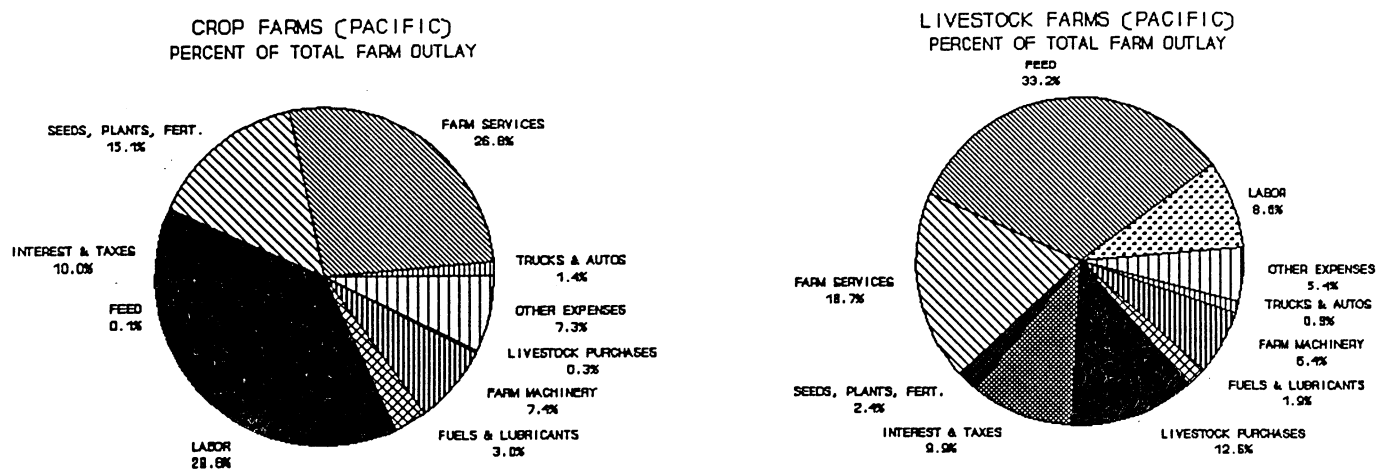
Oregon farms averaged 830 acres in 1988 which was highest in the Pacific region. Over two-thirds of total land operated was owned by the operator. The average age of farms operators was 53 years.

Vulnerable and marginally solvent farms had the youngest farm operators. Vulnerable farm operators owned all of the land they farmed in 1988 and were the smallest when compared with other financial categories. Farms in the favorable category had over twice the States average acres operated and rented the largest portion of acres operated.

Marginally solvent farms had the highest net cash farm income and return on assets with an average debt/asset ratio of 0.63. This suggests that high debt can be successfully managed to provide an adequate return to the farm business. On average, the cash deficits of both marginal income and vulnerable farms were more than offset by nonfarm earnings of their households.



Figure 2--Regional Farm Production Expenditures by Farm Type



Farm expenditure expenditures in the Pacific region totaled \$12.4 billion, down 2.8 percent from 1987, according to the National Agricultural Statistics Service (NASS), USDA. In comparison, United States production expenditures were \$118.4 billion, an increase of 7.5 percent from a year earlier. Increased regional expenditures in farm services, taxes, seeds, trucks and autos, and farm and land improvements were offset by decreases in other major items.

Expenditures for crop farms at \$7.9 billion were 63 percent of the total regional expenses, compared to 67 percent in 1987. Over one-half of the expenses on crop farms were labor (29 percent) and farm services (27 percent). Nearly two-thirds of the expenses on livestock farms were feed (33 percent), and farm services (19 percent), and livestock and poultry (13 percent).

Table 4--Selected production expenditures by type of farm, 1988

Pacific (CA, OR AND WA)	Crop farms	Livestock farms	All farms	
			Region	U.S.
<u>1,000 Dollars</u>				
Total farm production expenditures	7,881,437	4,552,252	12,433,689	118,361,751
Livestock & poultry	21,476	574,116	595,592	13,607,228
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Farm services	2,111,500	849,284	2,960,784	24,630,395
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Fertilizer	485,656	50,778	536,434	6,957,661
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Compared with all U.S. farms, financial difficulties were more extensive for farms and ranches in Oregon during 1988, according to this report which summarizes the latest information from the Farm Costs and Returns Survey (FCRS). The FCRS was conducted by the Oregon Agricultural Statistics Service as part of a national survey during February and March 1989. Over 26,000 farmers and ranchers were contacted nationwide. Individuals surveyed were chosen from a list of farm operators supplemented with producers living inside randomly selected geographical areas to ensure representation of all farms which sell or normally sell at least \$1,000 of agricultural products.

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# FARM COSTS AND RETURNS SURVEY 1988 SUMMARY: Washington

U.S. Department of Agriculture  
National Agricultural Statistics Service  
Economic Research Service  
Washington, D.C. 20250

Despite higher average net cash farm income, financial conditions deteriorated for many Washington farms during 1988. There was a sharp decline in the share of farms considered in a favorable financial position combined with an equally dramatic increase in the proportion of vulnerable farms.

Even though average net cash income was \$3,000 higher than in 1987, the proportion of farms with negative incomes increased by 18 percentage points. This suggests that in comparison with 1987 there was greater income disparity among Washington farms in 1988. Farm operators' balance sheets also showed signs of financial stress. Reductions in both assets and debt caused average net worth to decline by nearly \$44,000, yet the average debt/asset ratio was unchanged at 0.15. However, there was a 6 percentage point increase in the share of farms with high debt.

A farm's financial condition was measured by jointly considering the net cash income position (positive or negative) and the amount of debt relative to assets (above or below 0.40). Farms with positive income and low debt are regarded as **favorable**, while those with negative income and low debt are considered in a **marginal income** position. Those with positive income and high debt are characterized as **marginal solvency** and those with both negative income and high debt are **vulnerable**.

Figure 1--Washington farm financial position

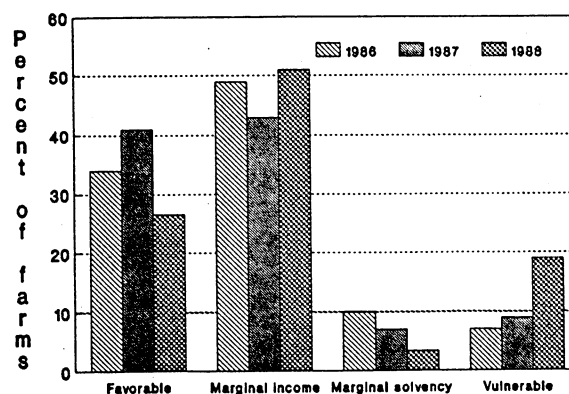


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Table 2--Selected average operating and financial characteristics, 1988

	CA	OR	WA	Pacific	U.S.
Acres per farm					
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Dollars per farm					
Crop sales	97,500	35,200	56,000	67,700	26,200
+ Net CCC loans	800	-300	-800	0	-900
+ Livestock sales	56,400	19,400	19,900	34,900	38,100
+ Other farm income	7,700	6,000	4,600	6,200	9,000
= Gross cash farm income	162,400	60,200	79,700	108,800	72,400
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Net worth	708,600	408,500	291,700	495,100	311,300
Ratio					
Debt/asset	0.12	0.13	0.15	0.13	0.13

1/ Defined as acres owned plus acres rented (excluding AUM land) minus land rented to others.

**Table 3--Average operating and financial characteristics for Washington farms by income and debt/asset ratio position, 1988**

	Favorable	Marginal income	Marginal solvency	Vulnerable	All farms
			<u>Percent</u>		
All farms	27	51	3	19	100
Economic class:					
Sales above \$250,000	77	9	10	4	100
Sales \$40,000-\$250,000	64	10	18	8	100
Sales below \$40,000	18	59	0	23	100
Type of farm:					
Vegetable, fruit, nursery	58	22	6	15	100
Other crops	55	16	8	20	100
Beef, hogs, and sheep	11	71	0	18	100
Other livestock and poultry	23	45	5	27	100
Operating:			<u>Acres per farm</u>		
Acres owned	230	60	270	20	110
Acres operated	720	110	670	80	300
Operator age	55	55	<u>Years</u>	41	52
Financial:			<u>Dollars per farm</u>		
Crop sales	156,200	3,500	150,200	11,500	56,000
+ Net CCC loans	-1,600	-300	d	-1,100	-800
+ Livestock sales	32,900	9,100	147,400	2,500	19,900
+ Other farm income	11,700	700	d	1,100	4,600
= Gross cash farm income	199,200	13,100	312,700	14,100	79,700
- Cash operating expenses	107,100	19,300	187,000	32,100	54,000
= Net cash farm income	92,100	-6,200	125,700	-18,000	25,700
Nonfarm income	21,600	46,600	16,900	51,600	39,000
Total assets	616,200	232,100	564,300	154,600	344,200
Total debt	55,800	11,200	350,700	95,700	52,500
Ratios:			<u>Ratio</u>		
Debt/asset	0.09	0.05	0.62	0.62	0.15
Return on assets	0.07	-0.00	0.16	-0.04	0.04
Cash expenses/gross income	0.54	1.48	0.60	2.27	0.68
Interest/gross income	0.04	0.08	0.08	0.69	0.07

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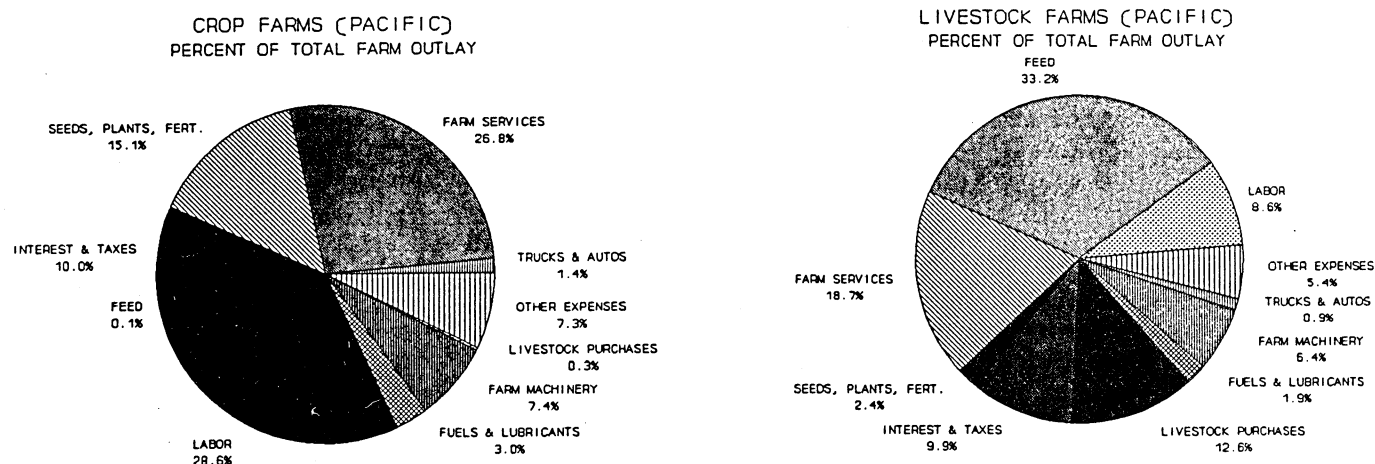
Financial performance was directly related to farm size with the number of favorable farms declining from 77 percent in the largest economic class to only 18 percent for farms with gross sales under \$40,000. Farms in the smallest economic class are normally regarded as non-commercial, part-time farming operations that are more dependent on off farm sources of income.

Vegetable, fruit, nursery and greenhouse operations had the lowest percentage of vulnerable farms as 16 percent, but this was a 10-percentage-point increase since 1987. Farms that specialized in the production of other crops had the highest share of favorable farms.

Washington farms average 300 acres, which was 50 acres less than a year ago. Of these, only one-third were owned by the farm operator. Acreage operated, land tenure, and operator age demonstrated considerable variation across financial categories.

Farms in a vulnerable financial position were run by the youngest operators, had the least acreage, and rented 3 out of 4 acres operated. Favorable farms were the largest in terms of acreage operated and had the oldest farm operators.

Figure 2--Regional Farm Production Expenditures by Farm Type



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