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Changes in Financial Profile of Cooperatives Handling Grain



Abstract

Changes in Financial Profile of Cooperatives Handling Grain

First-Handlers with \$5 Million or More in Sales, 1985 and 1983

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This report presents comparative financial information by size and type on local cooperative associations that are first-handlers of grain. These associations had annual sales in 1985 and 1983 of at least \$5 million, with grain sales representing more than half of total value of sales. Many of the associations handled farm supplies and provided related services. Net savings averaged lower in 1985 than in 1983 for most type/size groups studied, most noticeably for cooperatives in the Corn Belt and Southern Plains. This resulted from sharply lower grain sales and higher operating expenses, particularly labor. Most type/size groups were impacted more by increased operating expenses than by factors affecting gross income. Considerable debt reduction occurred during this period, but many associations were still left financially troubled in 1985.

Key words: cooperative, grain, elevators, debt, expenses

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Preface

This report is based on balance sheet and operating statement data collected as part of an annual survey of grain marketing cooperatives by the Agricultural Cooperative Service. Other types of information such as membership, volume of grain handled, and storage capacity were obtained from first-handler cooperatives. All information in this report is for first-handler local associations of two sizes, based on total sales, and four types:

Size Groups

- Large - 146 and 155 cooperatives with \$15 million or more in sales in 1965 and 1983, respectively.
- Medium - 381 and 503 cooperatives with \$5 million to \$14.9 million in sales in 1985 and 1983, respectively.

Types of Cooperatives

- Corn-soybean
- Wheat-sorghum
- Wheat-barley-oats
- Wheat-barley

More than 50 percent of total sales was from sales of grain. Most cooperatives were diversified, also handling farm supplies and providing many related services. The associations were typed for comparison on the basis of predominant grains handled-corn/soybeans (Corn Belt), wheat/sorghum (Southern Plains), wheat/barley/oats (Northern Plains) and wheat/barley (Pacific Northwest). Regardless of how grouped, the associations are clearly not homogeneous. For example, net savings for those comparable in terms of total dollar sales can vary considerably depending on types of grains handled.

All information included is based on condensed balance sheets and operating statements. Because of variations in accounting and auditing practices and terminology, it was necessary to adjust financial reports to ensure data comparability. Detail was obviously lost in the process.

The information in this report can help cooperative managers and boards make sound business decisions as they confront new problems and the need for increasing amounts of capital for improved or new facilities and/or services. Such information can be used as guidelines for success and pitfalls to avoid. You can use the information for your own cooperative to compare it with others of a similar type and size. (See tables A-D.)

This is the fifth publication in the financial profile series. The first four covered the associations with \$15 million or more total sales (ACS Research Report 53), \$5 million to \$14.9 million in sales (ACS Research Report 55), \$1 million to \$4.9 million in sales (ACS Research Report 58), and those with \$1 million or more in sales (ACS Research Report 63).

Glossary

Current assets-The dollar value of assets that can be readily converted into cash without interfering with the normal business operations.

Investments-The dollar value of investments in other business organizations, mostly cooperative associations, and deferred patronage.

Fixed assets-Dollar value of property, structures and equipment (less depreciation), land, construction in progress, and capital leases.

Other assets-All other assets such as bond cost amortization, and deferred and prepaid expenses.

Current **liabilities**—The dollar value of liabilities to be paid, including that portion of long-term debt due in a year or less and patronage refunds payable.

Long-term **liabilities**—The dollar value of all debts with a maturity of more than 1 year, such as debentures, notes, industrial revenue bonds, and mortgage notes.

Total debt-The dollar value of all long-term liabilities plus the current portion of long-term liabilities, seasonal loans, and debenture notes.

Net worth or **equity** capita/-The dollar value of owners' equity listed in the equity sections-includes common/capital/preferred stock, allocated/unallocated earnings, per-unit retains, and certificates of indebtedness and membership.

Gross margins-The dollar value of the sales of grain and farm supplies less cost of goods sold.

Other **operating** income-The dollar value of storage and handling fees, service revenue, load-out fees, cleaning, mixing, commissions, drying, finance charges, etc.

Nonoperating income-The dollar value of net interest income/expenses, gain or loss from the sale of assets, dividends on stock, and patronage refunds from other cooperatives.

Gross Income-The dollar value of gross margins plus other operating income and nonoperating income.

Total expenses-The dollar value of labor, administrative, and other general expenses, such as depreciation, repairs, utilities, and property taxes.

Labor expense-The dollar value of salaries and wages and fringe benefits, including social security, workers' compensation, unemployment, retirement, hospitalization, bonuses, and other expenses directly related to labor.

Net savings (losses)-The dollar value of gross income minus total expenses before income taxes.

Allocation of net savings-The dollar value of the net savings (1) paid in cash as patronage refunds, (2) paid in cash as dividends or interest on stock, (3) allocated to patrons on the book, (4) retained as equity or unallocated retained earnings, (5) allocated to an educational fund, and (6) set aside for income taxes (Federal and State).

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Highlights and Conclusions

This report presents information for 1985 and 1983 on the physical and financial structure of four types of local first-handlers-of-grain associations with total sales of at least \$5 million. Analysis of records for their operations revealed the following:

- Net savings per association in 1985 averaged lowest and dropped sharpest from 1983 for corn-soybean (Corn Belt) cooperatives, with one in four reporting a loss. The large wheat-barley-oats (Northern Plains) and the wheat-barley (Pacific Northwest) associations reported no losses in either year and net savings averaging higher in 1985.

- Seventy-two percent of the cooperatives studied were “worse off” in 1985 than in 1983 in terms of net savings, ranging from 77 percent for the Corn Belt to 52 percent for the Pacific Northwest. The highest incidence of “worse off” was 91 out of every 100 large wheat-sorghum cooperatives; that of “better off” was 88 out of every 100 large wheat-barley cooperatives.

- Patronage refunds received from other cooperatives contributed significantly to net savings in 1985 in areas hit hardest-Corn Belt (45 to 48 percent) and Southern Plains (34 to 38 percent)-and significantly more so than in 1983. Patronage refunds are relatively insignificant in the Northern Plains and the Pacific Northwest.

- Net savings for all cooperatives reporting savings in 1985 averaged 27 percent (medium-sized) and 21 percent (large) lower than comparable savings for 1983. Net losses for all cooperatives reporting losses in 1985 averaged 54 percent (medium-sized) larger and 28 percent (large) smaller than comparable losses for 1983.

- Debt levels for medium-sized and large associations of all types each averaged significantly higher in both years for those that reported losses than those that reported savings.

- Debt reduction was extensive by corn-soybean and wheat-sorghum associations during 1983-85; debt levels rose in the Northern Plains and Pacific Northwest. Net savings declines averaged about the same regardless of direction of debt-41 and 48 percent for medium-sized and large cooperatives, respectively, reduced debt; 49 and 56 percent for medium-sized and large cooperatives, respectively, increased debt.

- Grain sales were generally lower in 1985; farm supply sales were generally higher. Combined sales averaged \$967,336 (medium-sized) and **\$1,350,502** (large) lower in the Corn Belt and generally lower (\$1.35 to \$2.58 million) for large cooperatives of all types.

- Unit margins were up for most type/size groups. Margins as a proportion of total operating income was about the same in 1985 as in 1983 except in the Northern Plains, where service income rose **75-80** percent.

- Most type/size groups were impacted more by increased operating expenses than by gross income-related factors. Total expenses increases averaged at least 5.5 percent, labor at least 8.7 percent, and other expenses at least 1.8 percent.

- Total value of assets averaged lower in 1985 than in 1983 in the Corn Belt, higher in the Pacific Northwest, and higher on medium-sized and lower on large Plains cooperatives.

- Member equity averaged 7 to 22 percent higher in 1985 on all types of medium-sized associations and 2 to 12 percent lower on all large cooperatives except for wheat-barley. Most equity/asset ratios were between 0.5 and 0.6 in both years.

- Grain storage capacity expansion during 1983-85 was more prevalent among medium-sized than large cooperatives, which tended to scale back their operations. Those expanding tended to be undersized in 1983.

Substantial change has taken place over time in the financial structure of cooperatives that are first-handlers of grain, as evidenced by the 1983-85 period changes shown in this report. Key to grain-handling cooperatives adjusting successfully to changing economic conditions is sound financial management of debt and operating capital. Considerable effort remains to be made in both areas. Financial management is probably the most important and most complex managerial activity in the operation of grain-handling cooperatives today. Determining capital needs and establishing priorities continue to be critical areas in decisionmaking. Financial planning by grain-handling cooperatives should include (1) the generation of more permanent capital to replace or supplement revolving types of capital, (2) equitable membership participation in financing, and (3) maximizing financial leverage if used.

Traditionally, much of the operating capital of cooperatives was provided by members themselves, a generally restrictive means of financing their operations. Many grain-handling cooperatives discovered over time, particularly during the **1970's**, that they could not expand their operations solely on internal (or equity) financing, and thus found it necessary to borrow capital to meet their increasing financial needs and to realize economies of scale. Creative approaches to financing are needed if cooperatives are to continue to grow and be economically sound.

How Does Your Association Compare?

Recognizing that adjustments by grain cooperatives result in considerable variation in their physical and financial characteristics, balance sheet and operating data were developed for eight different types and sales groups of cooperative elevators for 2 years. This information can be beneficial to each cooperative association as a guide in managerial decisionmaking. Managers and directors alike should be familiar with their cooperatives' profiles and should use them as a guide in planning. The following tables (A-D) provide a format for use in analyzing your own operating statement and balance sheet and for comparing them with those for similar operations.

Table A—Compare your CORN-SOYBEAN cooperative with ● vorrgoa for similar cooperative operations

Group/item	Unit	Sales group (million dollars)				Your cooperative			
		5.0-14.9		15.0 or mom		1983	1995	Today	Future goal
		1993	1995	1993	1995				
Sales group (check)		<input type="checkbox"/>		<input type="checkbox"/>					
Storage capacity	Bushels	1,191,437	1,420,747	3,555,391	3,618,023	_____	_____	_____	
Grain marketed	Bushels	2,030,491	1,756,411	5,828,276	5,238,655	_____	_____	_____	
Turnover rate	Times	1.70	1.24	1.64	1.45	-	-	-	
Proportion grain	Percent	76.4	75.3	76.5	73.6	_____	_____	_____	
Total assets	Dollars	2,961,080	2,801,998	8,789,052	7909,691	_____	_____	_____	
Long-term debt ¹	Percent	13.3	10.9	16.7	17.9	_____	_____	_____	
Member equity ¹	Percent	56.3	64.5	46.5	50.6	_____	_____	_____	
Sales	Dollars	9,109,701	8,142,363	26,688,235	25,337,733	_____	_____	_____	
Margins on sales	Dollars	525,666	506,122	1,678,982	1,736,005	_____	_____	_____	
Total expenses	Dollars	717,616	772,766	2,239,521	2,363,335	_____	_____	_____	
Net savings (loss)	Dollars	139,491	43,195	327,740	160,145	-	-	-	
Labor of total expenses	Percent	41.2	41.6	39.2	41.4	-	-	-	
Net savings paid in cash ²	Percent	33.1	40.0	44.6	44.4	_____	_____	-	
Current ratio	Number	1.47	1.61	1.30	1.37	-	-	-	
Debt/assets	Ratio	.25	.19	.32	.29	_____	_____	_____	
Net savings (loss)/ total sales	Percent	1.5	0.5	1.2	0.6	_____	_____	_____	
Gross margins/total sales	Percent	5.6	6.2	6.3	6.9	_____	_____	_____	

¹Of total liabilities and member equity.

²Of total patronage allocation.

Table B—Compare your WHEAT-SORGHUM cooperative with averages for similar cooperative operations

Group/item	Unit	Sales group (million dollars)				Your cooperative			
		5.0-14.9		15.0 or more		1993	1995	Today	Future goal
		1993	1995	1993	1995				
Sales group (check)		<input type="checkbox"/>	<input type="checkbox"/>						
Storage capacity	Bushels	1,769,969	1,949,167	5,816,614	4,090,401				
Grain marketed	Bushels	1,762,481	2,038,244	4,817,412	4,498,007				
Turnover rate	Times	1.00	1.05	.83	1.10				
Proportion grain	Percent	89.0	88.8	85.8	80.7				
Total assets	Dollars	3,648,094	3,838,375	11,793,300	9,288,304				
Long-term debt ¹	Percent	11.2	11.5	11.4	11.8				
Member equity ²	Percent	82.8	84.9	58.5	83.2				
Sales	Dollars	8,352,199	8,747,064	24,445,424	22,027,461				
Margins on sales	Dollars	838,587	874,711	2,220,598	1,857,969				
Total expenses	Dollars	994,454	1,079,644	3,277,068	2,807,847				
Net savings (lose)	Dollars	208,237	188,709	777,792	295,551				
Labor of total expenses	Percent	44.3	44.3	43.9	44.3				
Net savings paid in cash*	Percent	34.7	38.3	28.5	33.0				
Current ratio	Number	1.59	1.73	1.35	1.82				
Debt/assets	Ratio	.23	.21	.23	.25				
Net saving.8 (loss)/total sales	Percent	2.5	1.9	3.2	1.3				
Gross margins/total sales	Percent	7.8	7.7	9.1	8.4				

¹Of total liabilities and member equity.

²Of total patronage albatbn.

Table C—Compare your WHEAT-BARLEY-OATS cooperative with • voragos for similar cooperative operations

Group/Item	Unit	Sales group (million dollars)				Your cooperative			
		5.0-14.9		15.0 or more		1983	1985	Today	Future goal
		1983	1985	1983	1985				
Sales group (check)		<input type="checkbox"/>		<input type="checkbox"/>					
Storage capacity	Bushels	610,479	622,176	2,295,857	1,919,550				
Grain marketed	Bushels	2,065,546	2,207,417	8,372,166	7,040,326				
Turnover rate	Times	3.36	2.66	3.65	3.67				
Proportion grain	Percent	65.7	62.1	91.3	66.7				
Total assets	Dollars	2,634,285	3,191,304	12,421,643	9,953,731				
Long-term debt ¹	Percent	6.0	6.6	6.7	10.7				
Member equity ²	Percent	50.3	50.6	32.5	39.6				
Sales	Dollars	7,558,539	8,074,722	27,289,963	24,706,201				
Margins on sales	Dollars	395,339	412,151	1,205,194	1,058,094				
Total expenses	Dollars	422,205	561,413	1,215,795	1,393,651				
Net savings (loss)	Dollars	126,840	120,604	342,725	467,102				
Labor of total expenses	Percent	42.2	44.9	41.7	44.0				
Net saving ⁸ paid in cash*	Percent	32.6	27.1	20.2	25.0				
Current ratio	Number	1.27	1.27	1.11	1.18				
Debt/assets	Ratio	.12	.11	.08	.15				
Net savings (loss)/ total sales	Percent	1.7	1.5	1.3	1.9				
Gross margins/total sales	Percent	5.2	5.1	4.4	4.3				

¹Of total liabilities and member equity.

²Of total patronage allocation.

Table D—Compare your WHEAT-BARLEY cooperative with averages for similar cooperative operations

Group/item	Unit	Sales group (million dollars)				Your cooperative			
		5.0-14.9		15.0 or more		1983	1985	Today	Future goal
		1983	1995	1993	1995				
Sales group (check)		<input type="checkbox"/>		<input type="checkbox"/>					
Storage capacity	Bushels	3,555,000	3,789,028	7,265,857	6,777,545				
Grain marketed	Bushels	2,313,292	2,373,766	7,552,196	8,430,961				
Turnover rate	Times	.65	.67	1.04	1.24				
Proportion grain	Percent	69.0	67.2	90.3	64.5				
Total assets	Dollars	2,996,501	3,565,172	8,407,906	10,071,369				
Long-term debt ¹	Percent	12.1	15.1	13.6	11.4				
Member equity ¹	Percent	66.6	61.7	54.0	53.3				
Sales	Dollars	9,420,393	8,592,312	29,949,288	32,770,882				
Margins on sales	Dollars	367,539	393,693	1,136,610	1,354,974				
Total expenses	Dollars	709,917	930,299	1,788,546	2,663,195				
Net savings (loss)	Dollars	276,466	167,060	744,673	612,595				
Labor of total expenses	Percent	36.7	44.4	39.2	47.1				
Net savings paid in cash ²	Percent	33.0	20.0	20.1	23.2				
Current ratio	Number	1.77	1.36	1.27	1.26				
Debt/assets	Ratio	.17	.25	.26	.24	-	-	-	
Net savings (loss)/ total sales	Percent	3.0	1.9	2.5	2.5				
Gross margins/total sales	Percent	3.9	4.6	3.6	4.1				

¹Of total liabilities and member equity.

²Of total patronage allocation.

Changes in Financial Profile of **Cooperatives** Handling **Grain**

First-Handlers with \$5 Million or More in Sales, 1985 and 1983

David E. Cummins
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Agricultural Economists

FIRST-HANDLER CHARACTERISTICS

This study is an analysis of changes in the financial structure and related operating characteristics of four types of cooperatives that are first-handlers of grain (referred to hereafter as first-handlers, grain cooperatives, or associations). These first-handlers had sales of at least \$5 million in 1985 and 1983, of which more than 50 percent was from grain sales. Most of these cooperatives were diversified, handling farm supplies as well as grain and providing related services.

Most cooperative associations in this study could be meaningfully grouped on the basis of grains **handled**—corn-soybean, wheat-sorghum, wheat-barley-oats, and wheat-barley. The corn-soybean cooperatives serve primarily farmers located in the Corn Belt, the **wheat-sorghum** cooperatives serve largely farmers in the **Southem Plains**, the wheat-barley-oats associations provide services to grain farmers in the Northern Plains, and the wheat-barley associations serve Pacific Northwest producers (fig. 1).

Figure 1. Location of Selected Types of First-handler Grain Cooperatives

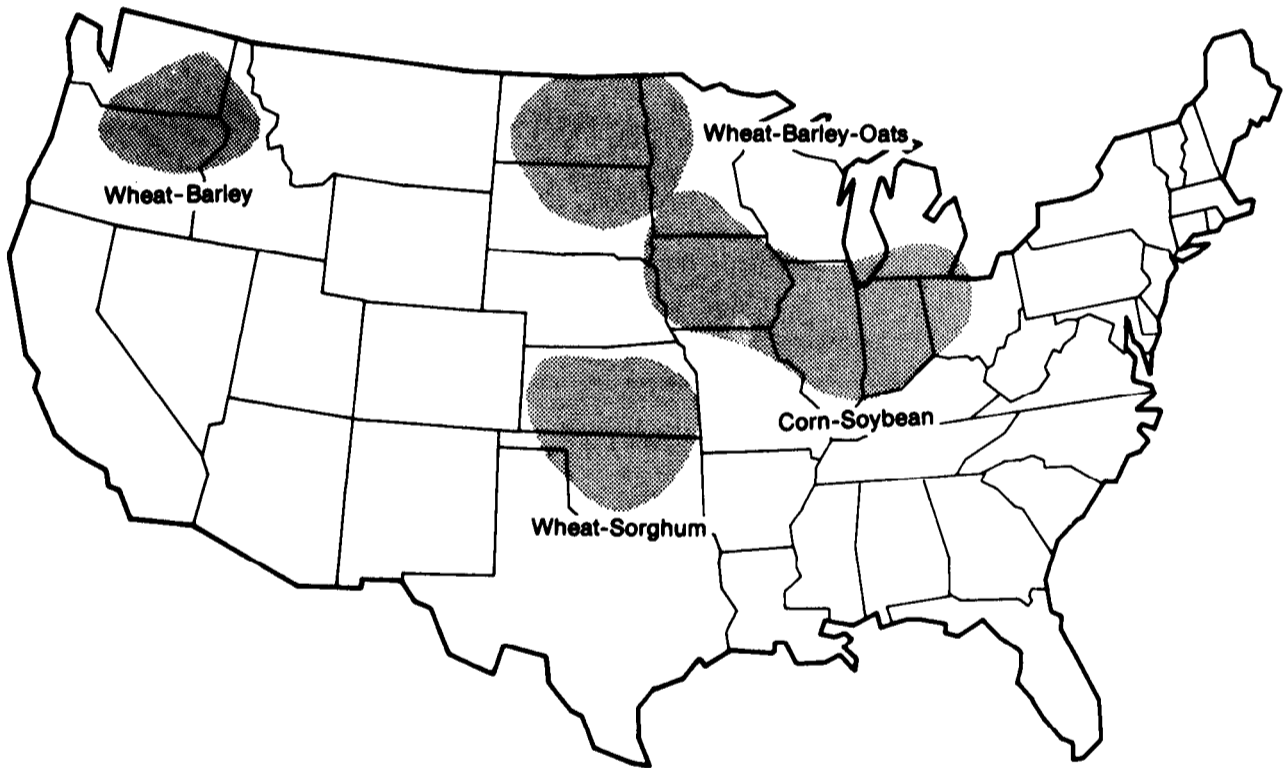


Figure 2

Net Savings Per Cooperative, by Size and Type of Cooperative, 1985 and 1983

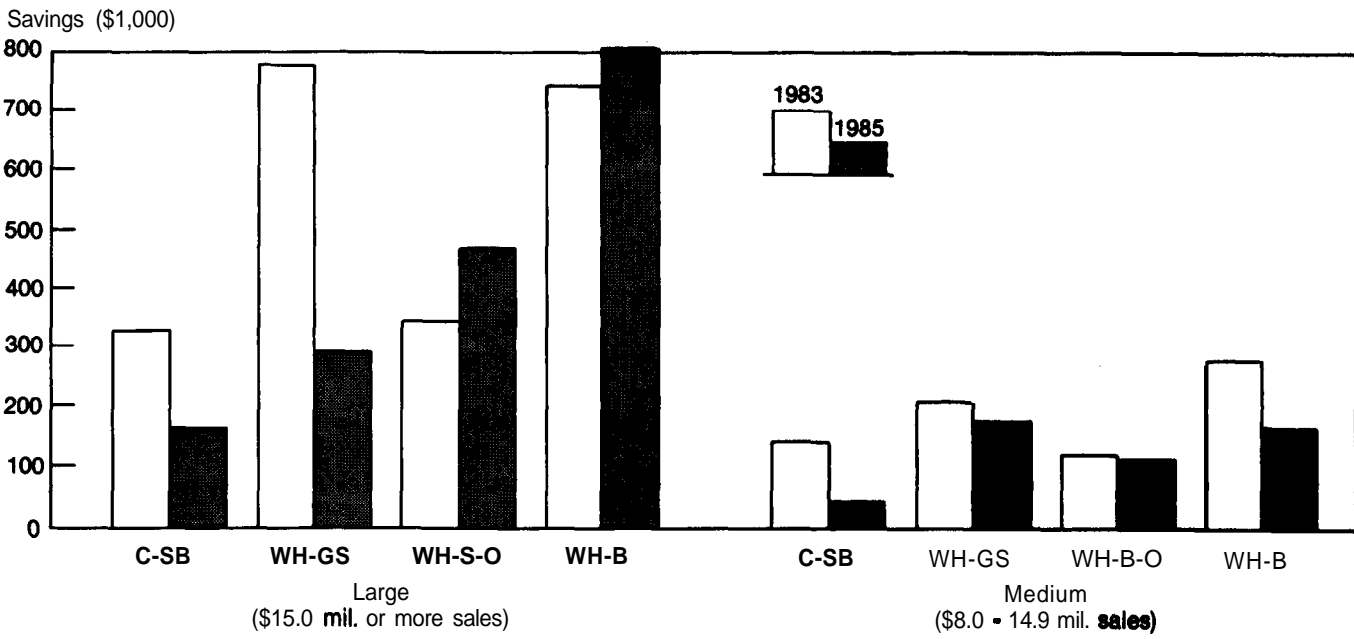


Table 1 -Not savings per association, by type and sales group of cooperative, 1985 and 1983

Type of cooperative	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	-- Dollars --		Percent	-- Dollars --		Percent
Corn-soybean	139,491	43,195	-69.0	327,740	180,145	-51.1
Wheat-sorghum	206,237	177,406	-14.0	777,792	295,551	-82.0
Wheat-barley-oats	126,640	120,604	-4.9	342,725	467,102	36.3
Wheat-barley	276,468	167,060	-40.0	744,873	812,595	9.1

Table 2—Proportion of associations reporting losses, by type and sales group of cooperative, 1985 and 1983

Type of cooperative	Sales group (million dollars)			
	5.0-14.9		15.0 or more	
	1983	1985	1983	1985
	Percent			
Corn-soybean	15.8	27.0	13.1	25.0
Wheat-sorghum	15.7	19.6	8.7	20.0
Wheat-barley-oats	4.2	2.9	0.0	0.0
Wheat-barley	0.0	18.8	0.0	0.0

NET SAVINGS

Net savings for first-handlers of grain were in general substantially lower in 1985 than in 1983. Corn Belt associations were hardest hit, followed by the Southern Plains wheat-sorghum cooperatives (table 1 and figure 2). First-handlers in the Northern Plains fared best during this period. One-fourth and one-fifth, respectively, of the first-handlers in the Corn Belt and Southern Plains reported losses in 1985, up sharply from two years earlier (table 2). The 1983-85 drop in net savings was quite sharp for most type/size groups for those that reported a savings (table 3). Period changes in losses per association varied widely among type/size groups (table 4).

Allocations of net savings were considerably different in 1985 than in 1983. Except for the two situations where net savings averaged higher in 1985, the proportion of net savings allocated as patronage rose, most noticeably where net savings dropped sharply—in the Corn Belt and the Pacific Northwest (table 5). This rise was largely at

the expense of shrinking unallocated reserves. For most situations, the relative proportions of patronage refunds paid in cash and retained in 1985 were about the same by type as in 1983.

Patronage refunds received from other cooperatives played a significantly more important role in 1985 than in 1983, particularly for Corn Belt and Southern Plains associations (table 6). Patronage refunds varied from being relatively insignificant in the Northern Plains and Pacific Northwest in both years to accounting for nearly 50 percent of net savings of medium-sized corn-soybean cooperatives in 1985.

Most type/size groups were affected more by increased operating expenses than by factors affecting gross income. In fact, with one exception, gross incomes in the three wheat areas averaged higher in 1985 than in 1983 (table 7). These increases partially offset sharply higher operating expenses, particularly for wheat-barley-oats cooperatives. Higher operating expenses coupled with

Table 3—Net savings per association for cooperatives reported a SAVINGS, by type and sales group, 1988 and 1983

Type of cooperative	Sales group (million dollars)					
	5.0-4.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Corn-soybean	181,495	108,087	40.4	457,637	330,371	-27.8
Wheat-sorghum	260,577	237,216	-9.0	838,057	476,000	-43.1
Wheat-barley-oats	133,074	124,350	-6.8	342,725	467,102	38.3
Wheat-barley	278,468	249,444	-10.4	744,873	812,595	9.1

Table 4—Net losses per association for cooperatives reported LOSSES, by type and sales group, 1985 and 1983

Type of cooperative	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Corn-soybean	84,195	132,128	56.9	535,142	350,533	-34.5
Wheat-sorghum	84,871	67,273	-20.7	37,908	426,247	(¹)
Wheat-barley-oats	16,548	2,988	-81.9	—	—	—
Wheat-barley	—	189,937	∞	—	—	—

¹More than elevenfold.

Table 5—Allocation of net savings, by type and sales group of cooperative, 1985 and 1983

Type of cooperative	Unit	Sales group (million dollars)			
		5.0-14.9		15.0 or more	
		1983	1985	1983	1985
<i>Corn-soybean:</i>					
Net savings ¹	Dollars	139,491	43,195	327,740	160,145
Patronage, total	Percent	53.1	62.2	55.2	60.6
Paid in cash	Percent	33	40	45	44
Retained	Percent	67	60	55	56
Other²	Percent	9.1	17.6	10.5	11.9
Unallocated reserves	Percent	37.6	—	34.3	7.5
<i>Wheat-sorghum:</i>					
Net savings ¹	Dollars	206,237	177,406	777,792	295,551
Patronage, total	Percent	64.5	95.2	79.6	96.4
Paid in cash	Percent	35	37	29	32
Retained	Percent	65	63	71	66
Other*	Percent	3.6	3.9	1.5	3.6
Unallocated reserves	Percent	11.9	.9	16.7	—
<i>Wheat-barley-oats:</i>					
Net savings ¹	Dollars	126,640	120,604	342,725	467,102
Patronage, total	Percent	35.7	36.0	14.4	6.9
Paid in cash	Percent	33	27	20	25
Retained	Percent	67	73	60	75
Other²	Percent	3.6	5.6	0.0	0.4
Unallocated reserves	Percent	60.7	56.2	65.6	90.7
<i>Wheat-barley:</i>					
Net savings ¹	Dollars	276,466	167,060	744,673	612,595
Patronage, total	Percent	29.2	47.0	57.7	45.7
Paid in cash	Percent	33	20	20	23
Retained	Percent	67	60	60	77
Other²	Percent	4.9	4.2	12.3	10.4
Unallocated reserves	Percent	65.9	46.6	30.0	43.9

Savings before income taxes and allocations.

²Includes dividends/interest on equity capital, an educational provision, and Federal and State income taxes.

lower incomes were responsible for the significantly lower net savings in the Corn Belt.

Savings Versus Losses

Operating statements and balance sheets for both years were developed separately for associations reporting net savings and for those with losses (table 8). There are many differences and similarities between associations reporting savings and those reporting losses for the same

size group and the same year.¹ Key similarities include average fixed and total assets, average grain and total sales, and sales of grain as a proportion of total sales. Key significant differences include gross income, which averaged larger in both years for cooperatives with savings; total expenses, which averaged considerably higher for cooperatives with losses; and total debt, which

¹Sample size prevented making meaningful net savings versus losses comparisons by type of cooperative.

Table 6—Net savings and patronage refunds received per association, by type and sales group, 1985 and 1983

Type of cooperative	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1993	1995	1985/1983	1993	1995	1985/1993
				<i>Percent</i>			<i>Percent</i>
<i>Corn-soybean:</i>							
Net savings ¹	Dollars	139,491	43,195	-69.0	327,740	160,145	-51.1
Patronage refund*	Dollars	20,411	20,773	1.6	60,365	72,767	20.5
Of net savings	Percent	14.6	46.1		16.4	45.4	
<i>Wheat-sorghum:</i>							
Net savings ¹	Dollars	206,237	177,406	-14.0	777,792	295,551	-62.0
Patronage refund ²	Dollars	44,773	67,242	50.2	96,562	100,160	3.7
Of net savings	Percent	21.7	37.9		12.4	33.9	
<i>Wheat-barley-oats:</i>							
Net savings ¹	Dollars	126,640	120,604	-4.9	342,725	467,102	36.3
Patronage refund ¹	Dollars	6,071	3,621	-55.1	21,064	23,059	9.5
Of net savings	Percent	6.4	3.0		6.1	4.9	
<i>Wheat-barley:</i>							
Net savings ¹	Dollars	276,466	167,060	-40.0	744,673	612,595	9.1
Patronage refund ²	Dollars	697	19,067	(³)	-14,999	30,661	—
Of net savings	Percent	.3	11.4		—	3.6	

Savings before income taxes and allocations. ¹Received from other cooperatives. ²More than doubled.

was significantly larger in both years for both size groups of cooperatives with losses.

The debt picture is strikingly different for these two groups. Total debt, including the current portion of long-term debt, for the medium-sized and large cooperatives of all types averaged 1.92 and 1.64 times larger in 1985 for cooperatives reporting losses than for those reporting net savings. Comparable figures for 1983 are 1.72 and 1.69. Total debt represented 55 and 86 percent, respectively, of member equity for medium-sized and large cooperatives reporting losses in 1985; while it represented 24 and 42 percent, respectively, of member equity for all those with net savings. Figures 3 and 4 show the distributions of the respective groups of associations on the basis of debt/equity ratio.

“Better Versus Worse Off”

Comparison of identical associations for 1985 and 1983 reveals clues to why many first-handlers improved their income and financial situation during this period. Using

net savings as the criterion, 27 and 30 percent, respectively, of the medium-size and large associations were “better off” in 1985 than in 1983. The proportion “better off” varies significantly among the association type/size groups, as shown below. These relative proportions are reflected in the 1983-85 changes in net savings per association shown in table 1.

Sales group (million dollars)	Type of cooperative			
	Corn-soybean	Wheat-sorghum	Wheat-barleyoats	Wheat-barley
				<i>Percent</i>
5.0-14.9:				
Better off	20	36	44	29
Worse off	80	64	56	71
15.0 or more:				
Better off	30	9	50	86
Worse off	70	91	50	14

Table 7-Gross income and operating expenses per association for first-handlers-of-grain cooperatives, by type and sales group, 1988 and 1983

Type of cooperative	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	-- Dollars --		Percent	-- Dollars --		Percent
<i>Corn-soybean:</i>						
Gross income ¹	857,109	815,983	-4.8	2,567,261	2,523,480	-1.7
Total expenses ²	717,818	772,788	7.7	2,239,521	2,363,335	5.5
Income/expenses ³	1.19	1.06	-10.9	1.15	1.07	-7.0
<i>Wheat-sorghum:</i>						
Gross income ¹	1,200,691	1,257,050	4.7	4,054,860	3,103,398	-23.5
Total expenses ²	994,454	1,079,644	8.8	3,277,068	2,807,847	-14.3
Income/expenses ³	1.21	1.18	-4.1	1.24	1.11	-10.5
<i>Wheat-barley-oats:</i>						
Gross income ¹	549,045	682,017	24.2	1,558,520	1,860,753	19.4
Total expenses ²	422,205	581,413	33.0	1,215,795	1,393,651	14.6
Income/expenses ³	1.30	1.21	-6.9	1.28	1.34	4.7
<i>Wheat-barley:</i>						
Gross income ¹	988,385	1,097,359	11.0	2,533,419	3,475,790	37.2
Total expenses ²	709,917	930,299	31.0	1,788,546	2,663,195	48.9
Income/expenses ³	1.39	1.18	-15.1	1.42	1.31	-7.7

¹Margins on sales and other operating income plus nonoperating income.

²Labor and labor-related expenses plus all other operating expenses.

³Gross income per dollar total expenses.

Factors that generally distinguished those that realized higher net savings in 1985 from those with lower net savings were volume and proportion grain of dollar sales, grain volume marketed, and debt-related costs. Cooperatives that were "better off" in 1985 had maintained grain marketings at 1983 levels, thereby operating elevator facilities more efficiently; boosted farm supply sales; did a better job of braking operating expenses increases, particularly nonlabor expenses; and did a better job of reducing particularly short-term debt and debt-related costs (table 9). In fact, the 11-percent increase in gross income, coupled with the 2-percent

reduction in total expenses, resulted in a more than five-fold increase in net savings for the larger associations.

For associations "worse off" in 1985, grain marketings were off 9.5 to 9.7 percent and grain sales were off 13 to 14 percent. Farm supply sales were lower on medium-sized cooperatives; increases in operating expenses were larger, particularly expenses for labor on the large ones; and debt reduction, particularly short-term debt, was less. Also contributing to this "worse off" group's situation were a number of partial/full writeoffs of investments in other cooperatives (nonoperating income/loss item).

Figure 3

Distribution of Medium-Sized Cooperatives by Debt/Equity Ratio: Co-opr Reported Net Savings, Losses

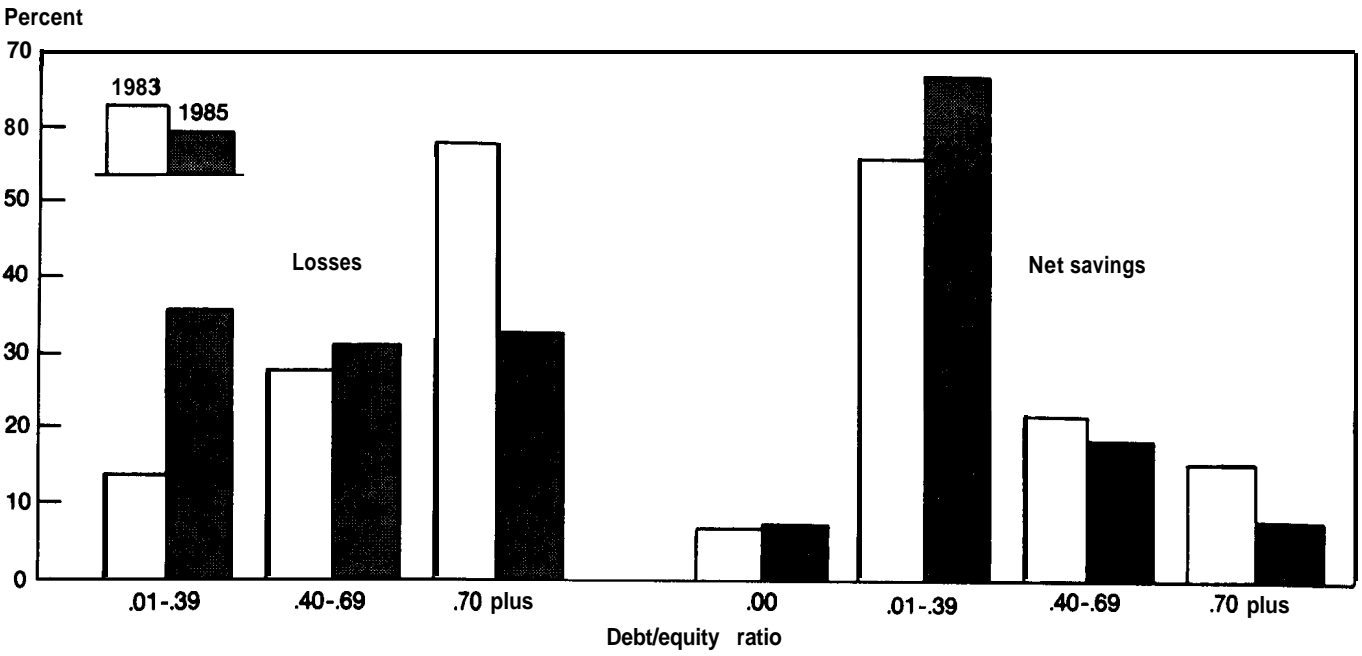


Figure 4

Distribution of Large Cooperatives by Debt/Equity Ratio: Co-ops Reported Net Savings, Losses

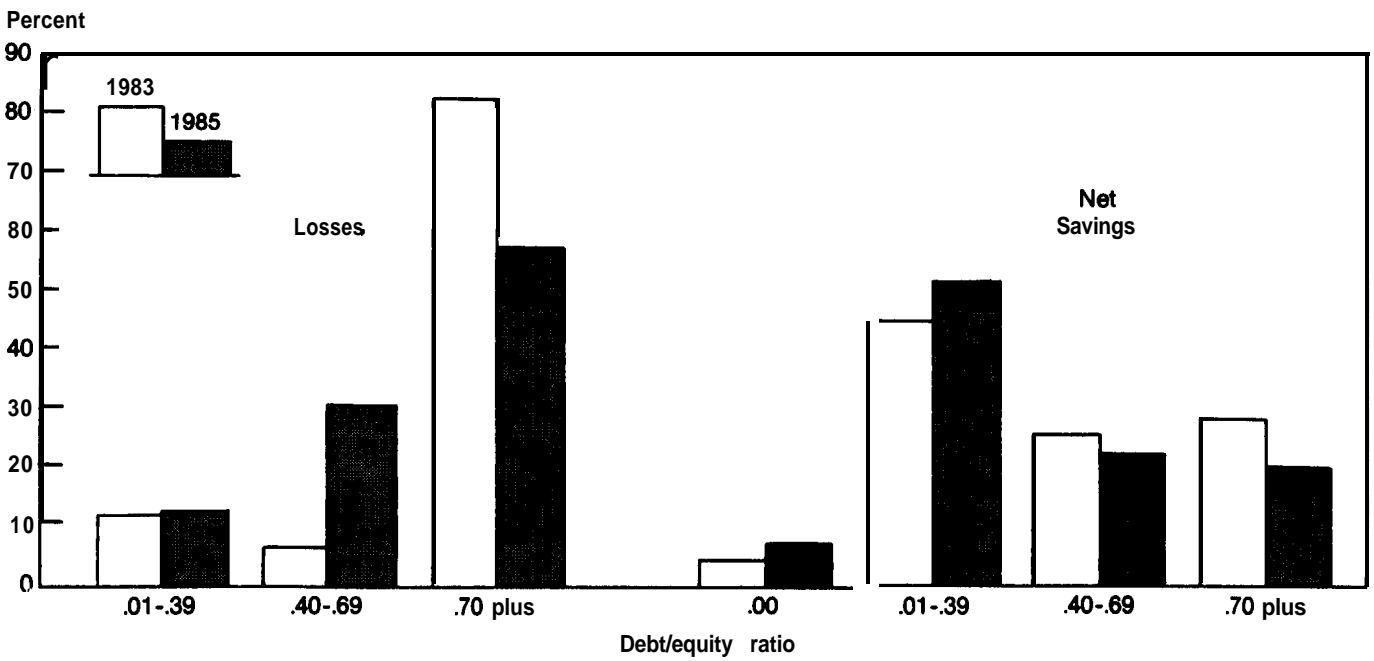


Table 8—Operating statement and balance sheet data per association reporting savings and losses, by sales group, 1888 and 1883

Item	Unk	Sales group (\$5.0-14.9 million)					
		1983			1985		
		Savings	Losses	Savings/ losses Percent	Savings	Losses	Savings/ losses Percent
Gross income	Dollars	924,733	801,754	15.3	923,905	802,380	15.1
Total expenses	Dollars	<u>720,784</u>	<u>880,738</u>	-18.2	<u>775,075</u>	<u>923,899</u>	-18.1
Net savings (loss) ¹	Dollars	203,909	(78,982)	—	148,830	(121,319)	—
Total sales	Dollars	8,717,786	8,579,135	1.8	8,364,622	8,067,073	3.7
Grain sales	Dollars	6,838,598	6,330,683	8.0	6,377,464	5,803,108	9.9
Share of total	Percent	78.4	73.8	8.2	78.2	71.9	8.0
Grain storage	Bushels	1,417,551	1,158,410	22.4	1,535,471	1,619,566	-5.2
Turnover rate	Times	1.42	1.53	-7.2	1.28	1.08	18.5
Current assets	Dollars	1,394,739	1,330,434	4.8	1,350,075	1,081,301	24.9
Investments	Dollars	598,288	710,332	-18.1	800,982	738,023	-18.3
Fixed assets	Dollars	1,130,342	1,025,153	10.3	1,122,853	1,198,959	-8.3
Other	Dollars	<u>18,241</u>	<u>35,527</u>	48.7	<u>18,445</u>	<u>34,327</u>	48.3
Total assets	Dollars	3,139,610	3,101,446	1.2	3,092,355	3,050,610	1.4
Current liabilities	Dollars	903,085	1,204,339	-25.0	824,140	858,417	4.0
Long-term liabilities	Dollars	377,188	494,484	-23.7	287,003	507,048	43.4
Equity	Dollars	1,859,359	1,402,643	32.8	1,981,212	1,685,147	17.8
Total liabilities and equity	Dollars	3,139,610	3,101,446	1.2	3,092,355	3,050,610	1.4
Working capital ²	Dollars	491,854	128,095	(³)	525,935	222,884	(³)
Current ratio	—	1.54	1.10	40.0	1.84	1.28	30.2
Total debt ⁴	Dollars	883,401	1,141,073	-41.9	478,080	919,280	48.0
Member equity	Percent	59.2	45.2	31.0	84.1	55.2	18.1
Debt/equity	Ratio	.36	.81	-55.8	.24	.55	-58.4
Net savings (loss)/equity	Percent	10.97	(5.83)	—	7.51	(7.20)	—

¹Savings before income taxes and allocations.

Current assets minus current liabilities.

³More than double.

⁴Includes current portion of long-term debt.

(Continued)

Table 8—Operating statement and balance sheet data per association reporting savings and losses, by sales group, 1888 and 1983—Continued

Item	Unit	Sales group (\$15.0 million of more)					
		1983			1985		
		Savings	Losses	Savings/ losses Percent	Savings	Losses	Savings/ losses Percent
Gross income	Dollars	2,745,117	2,623,215	4.6	2,761,908	2,336,325	18.2
Total expenses	Dollars	<u>2,191,826</u>	<u>3,110,102</u>	-29.5	<u>2,323,526</u>	<u>2,686,381</u>	-13.5
Net savings (loss) ¹	Dollars	553,291	(486,887)	—	436,382	(350,056)	—
Total sales	Dollars	27,299,869	29,814,473	-8.4	26,021,363	25,151,158	3.5
Grain sales	Dollars	21,380,941	21,638,695	-1.2	19,469,284	17,545,775	11.0
Share of total	Percent	78.3	72.6	7.9	74.8	69.8	7.2
Grain storage	Bushels	3,998,157	3,704,228	7.9	4,042,064	3,897,826	3.7
Turnover rate	Times	1.52	1.84	-7.3	1.44	1.32	9.1
Current assets	Dollars	4,460,051	4,569,896	-2.4	3,985,753	3,064,684	30.1
Investments	Dollars	1,596,558	2,326,648	31.4	1,517,688	2,178,355	-30.3
Fixed assets	Dollars	3,303,615	3,179,047	3.9	3,021,757	3,158,906	-4.3
Other	Dollars	<u>45,617</u>	<u>44,894</u>	1.6	<u>105,266</u>	<u>41,453</u>	(³)
Total assets	Dollars	9,405,841	10,120,485	-7.1	8,630,464	8,443,398	2.2
Current liabilities	Dollars	3,371,599	4,209,705	-19.9	2,784,419	2,588,289	7.6
Long-term liabilities	Dollars	1,304,955	2,101,140	-37.9	1,108,127	2,090,269	-47.0
Equity	Dollars	<u>4,729,287</u>	<u>3,809,640</u>	24.1	<u>4,737,918</u>	<u>3,764,840</u>	25.8
Total liabilities and equity	Dollars	9,405,841	10,120,485	-7.1	8,630,464	8,443,398	2.2
Working capital ²	Dollars	1,088,452	380,191	(³)	1,201,334	476,395	(³)
Current ratio	—	1.32	1.09	21.1	1.43	1.18	21.2
Total debt ⁴	Dollars	2,502,842	4,223,018	-40.7	1,967,066	3,231,589	-39.1
Member equity	Percent	50.3	37.6	33.8	54.9	44.6	23.1
Debt/equity	Ratio	.53	1.11	-52.3	.42	.86	-51.2
Net savings (loss)/equity	Percent	11.70	(12.78)	—	9.25	(9.30)	—

¹Savings before income taxes and allocations.

²Current assets minus current liabilities.

Wore than double.

⁴Includes current portion of long-term debt.

Table 9—Abbreviated income and balance sheet statement for “better off” and “worse off” first-handlers-of-grain cooperatives,* by sales group, 1985 and 1983

Item	Unit	Sales group (\$5.0-\$14.9 million)					
		Better off			Worse off		
		1983	1985	1985/1983	1983	1985	1985/1983
			Percent			Percent	
Net savings ¹	Dollars	89,253	180,957	(2)	224,017	83,153	-71.8
Gross margins	Dollars	510,374	588,895	11.0	804,415	533,309	-11.8
Other operating income	Dollars	389,013	433,855	17.8	434,134	409,645	-5.8
Nonoperating income	Dollars	(7,139)	(3,928)	45.0	(23,336)	(46,850)	(2)
Gross income ³	Dollars	872,248	996,622	14.3	1,015,213	898,104	-11.7
Labor expense	Dollars	324,082	345,429	8.8	328,711	350,723	8.7
Other expenses	Dollars	<u>458,913</u>	<u>470,238</u>	2.5	<u>482,485</u>	<u>482,228</u>	4.3
Total expenses	Dollars	782,995	815,885	4.2	791,198	832,951	5.3
Total sales	Dollars	8,811,185	8,422,737	4.4	9,597,804	8,583,636	-10.8
Grain	Dollars	6,816,438	6,305,553	-7.5	7,528,980	6,546,261	-13.1
Farm supply	Dollars	1,994,747	2,117,184	8.1	2,068,824	2,037,375	-1.5
Grain marketings	Bushels	1,977,629	1,968,442	-5	2,191,296	1,983,366	-9.5
Grain storage capacity	Bushels	1,316,562	1,461,979	11.0	1,547,784	1,675,411	8.2
Total debt	Dollars	751,808	582,485	-22.5	738,290	811,848	-18.9
Short-term	Dollars	341,129	233,729	-31.5	303,344	258,130	-14.9
Long-term	Dollars	410,477	348,758	-15.0	432,948	353,518	-18.3

¹ Identical cooperative associations reporting for both years. Net savings is criterion for “better off” versus “worse off” in 1985.

Savings before income taxes and allocations.

*More than doubled.

³Margins on sales plus other operating income and all nonoperating income.

(Continued)

Table 9—Abbreviated income and balance sheet statement for “better off” and “worse off” first-handlers-of-grain cooperatives,* by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (\$15.0 million or more)					
		Better off			Worse off		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Net savings ¹	Dollars	72,626	393,649	(²)	597,906	162,932	-69.4
Gross margins	Dollars	1,570,900	1,737,900	10.6	1,896,913	1,804,493	-4.9
Other operating income	Dollars	1,018,465	1,092,462	7.3	1,227,205	1,097,055	-10.6
Nonoperating income	Dollars	<u>(104,773)</u>	<u>(74,775)</u>	-26.6	<u>(94,716)</u>	<u>(139,712)</u>	47.5
Gross income ³	Dollars	2,484,592	2,755,587	10.9	3,029,400	2,761,836	-6.6
Labor expense	Dollars	946,103	1,017,188	7.5	975,966	1,080,273	10.7
Other expenses	Dollars	<u>1,405,663</u>	<u>1,344,750</u>	-6.3	<u>1,455,526</u>	<u>1,498,631</u>	3.0
Total expenses	Dollars	2,411,966	2,361,938	-2.1	2,431,494	2,578,904	6.1
Total sales	Dollars	27,320,960	27,279,687	-.2	28,923,557	26,331,459	-9.0
Grain	Dollars	20,756,777	20,506,442	-1.2	22,125,356	19,025,121	-14.0
Farm supply	Dollars	6,564,203	6,773,245	3.2	6,798,201	7,306,338	7.5
Grain marketings	Bushels	6,025,577	5,997,950	-.5	6,239,696	5,633,700	-9.7
Grain storage capacity	Bushels	3,441,905	3,372,549	-2.0	4,357,899	4,590,759	5.3
Total debt	Dollars	2,955,037	2,241,982	-24.1	2,659,089	2,224,091	-16.4
Short-term	Dollars	1,629,983	1,052,866	-35.4	1,183,934	928,137	-21.6
Long-term	Dollars	1,325,054	1,189,116	-10.3	1,475,155	1,295,954	-12.1

¹Identical cooperative associations reporting for both years. Net savings is criterion for “better off” versus “worse off” in 1985.

Savings before income taxes and allocations.

²More than doubled.

³Margins on sales plus other operating income and all nonoperating income.

INCOME AND EXPENSES

Key factors underlying the 1983-85 changes in net savings were bushel and dollar volume grain sales, grain prices received, and operating expenses. These factors varied considerably in direction and magnitude among the type/size groups of cooperatives studied (tables 10-11).

In fact, the net effect of the relative changes in gross income and total expenses were declines of 4 to 15 percent in gross income generated per dollar of total expenses for seven of the eight type/size groups (table 7). For wheat-type cooperatives, this generally happened because expenses rose more than gross income. **Corn-soybean** cooperatives experienced the combined effect of lower incomes and higher expenses.

When the relationship of gross income to total expenses is viewed as an efficiency measure, the medium-sized and large grain-handling cooperatives of each type were equally efficient in both years. Associations handling wheat were generally more efficient in generating income than those handling corn and soybeans.

Sales and Margins

In 1985, combined sales of grain and farm supplies were lower than those in 1983 for corn-soybean cooperatives, and generally lower for the larger cooperatives (table 10). Farm supply sales generally averaged higher and gained slightly as a proportion of total sales. Grain sales averaged lower and farm supply sales higher in all situations where total sales declined, whereas both grain

Table 10—Sources of income and operating expenses per association for CORN-SOYBEAN cooperatives, by sales group, 1985 and 1983

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1993	1985	1985/1983	1983	1995	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Grain sales	7,137,771	6,131,311	-14.1	20,419,681	18,693,506	-8.5
Farm supply sales	1,971,930	2,011,052	2.0	6,268,554	6,644,227	6.0
Total sales	9,109,701	8,142,363	-10.8	26,688,235	25,337,733	-5.1
Cost of sales	-8,583,833	-7,636,241	-11.0	-25,009,273	-23,601,728	-5.6
Margins on sales	525,888	508,122	-3.8	1,678,962	1,736,005	3.4
Other operating income	373,597	364,654	-2.4	1,033,605	931,930	-9.8
Nonoperating income	-42,356	-54,793	29.4	-145,306	-144,455	-0.6
Gross income	857,109	815,983	-4.8	2,567,261	2,523,480	-1.7
Labor expenses	295,728	321,851	8.8	879,004	978,830	11.4
Other expenses	421,890	450,937	6.9	1,360,517	1,384,505	1.8
Total expenses	717,618	772,788	7.7	2,239,521	2,363,335	5.5
Net savings ¹	139,491	43,195	-69.0	327,740	160,145	-51.1
Gross income per dollar expense	1.19	1.06	-10.9	1.15	1.07	-7.0
	<i>Percent</i>					
Proportion grain of total sales	78.4	75.3	-4.0	76.5	73.8	-3.5
Proportion labor of total expenses	41.2	41.6	1.0	39.2	41.4	5.6
Margins/total sales	5.77	6.22	7.8	6.29	6.85	8.9

¹Savings before income taxes and allocations.

(Continued)

and farm sales averaged higher where total sales averaged higher. Margins were up most for wheat-barley associations in the Pacific Northwest and declined most for the three type/size groups with the largest drop in grain sales. Margins as a percentage of total sales tends strongly to be highest for cooperatives in areas where the contribution of farm supply sales is largest (Southern Plains and Corn Belt); and, conversely, lowest in the Northern Plains and Pacific Northwest, where grain accounts for 85 to 90 percent of total sales.

Grain Marketings and Prices Received

Grain marketings by first-handler cooperatives in the Corn Belt averaged about 14 percent lower in 1985 while prices received averaged about the same as in 1983 (table 11).

On the other hand, grain marketings increased in the Pacific Northwest while prices received averaged significantly lower than in 1983. Barley marketings increased sharply for both medium-sized and large cooperatives, whereas wheat marketings were higher for the medium-sized ones and lower for the large ones. The shift in marketings from wheat to barley accounted for most of the drop in the weighted average of prices received. The weighted average of prices received was also sharply lower for cooperatives in the Southern Plains, largely because of the shift in marketings from wheat to grain sorghum.

Table 10—Sources of Income and operating expenses per association for WHEAT-SORGHUM cooperatives, by sales group, 1988 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Grain sales	5,762,502	6,004,800	4.2	16,075,385	13,378,618	-16.6
Farm supply sales	2,589,697	2,742,264	5.9	8,370,039	8,648,843	3.3
Total sales	8,352,199	8,747,064	4.7	24,445,424	22,027,461	-9.9
Cost of sales	-7,715,632	-8,072,353	4.6	-22,224,826	-20,169,492	-9.2
Margins on sales	636,567	674,711	6.0	2,220,598	1,857,969	-16.3
Other operating income	490,575	540,261	10.1	1,793,658	1,297,474	-27.7
Nonoperating income	73,549	42,076	-42.6	40,604	-52,045	—
Gross income	1,200,691	1,257,050	4.7	4,054,860	3,103,398	-23.5
Labor expenses	440,313	476,652	6.7	1,439,665	1,245,275	-13.5
Other expenses	554,141	600,992	6.5	1,837,403	1,562,572	-15.0
Total expenses	994,454	1,079,644	6.6	3,277,068	2,807,847	-14.3
Net savings ¹	206,237	177,406	-14.0	777,792	295,551	-62.0
Gross income per dollar expense	1.21	1.16	4.1	1.24	1.11	-10.5
			<i>Percent</i>			
Proportion grain of total sales	69.0	68.6	-0.6	65.8	80.7	-7.8
Proportion labor of total expenses	44.3	44.3	0.0	43.9	44.3	.9
Margins/total sales	7.62	7.71	1.2	9.08	8.43	-7.2

¹Savings before income taxes and allocations.

(Continued)

Table 10—Sources of income and operating expenses per association for WHEAT-BARLEY-OATS cooperatives, by sales group, 1995 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		Percent	<i>-- Dollars --</i>		Percent
Grain sales	6,474,710	6,626,757	2.3	24,903,062	21,428,038	-14.0
Farm supply sales	1,083,829	1,447,965	33.6	2,386,901	3,278,163	37.3
Total sales	7,558,539	8,074,722	6.8	27,289,963	24,706,201	-9.5
Cost of sales	-7,163,200	-7,662,571	7.0	-26,084,769	-23,648,107	-9.3
Margins on sales	395,339	412,151	4.3	1,205,194	1,058,094	-12.2
Other operating income	162,578	285,512	75.6	357,714	643,801	80.0
Nonoperating income	-8,872	-15,646	76.4	-4,388	2,158,858	—
Gross income	549,045	682,017	24.2	1,558,520	1,860,753	19.4
Labor expenses	178,068	251,904	41.5	506,392	613,273	21.1
Other expenses	244,137	309,509	26.8	709,403	760,378	10.0
Total expenses	422,205	561,413	33.0	1,215,795	1,393,651	14.6
Net savings ¹	126,840	120,804	-4.9	342,725	467,102	36.3
Gross income per dollar expense	1.30	1.21	-6.9	1.28	1.34	4.7
			Percent			
Proportion grain of total sales	85.7	82.1	-4.2	91.3	86.7	-5.0
Proportion labor of total expenses	42.2	44.9	6.4	41.7	44.0	5.5
Margins/total sales	5.23	5.10	-2.5	4.42	4.28	-3.2

¹Savings before income taxes and allocations.

²Reflects gains in assets related to unexpected natural occurrences; figure would have been -29,787 otherwise.

(Continued)

Table 10—Sources of income and operating expenses per association for WHEAT-BARLEY cooperatives, by sales group, 1985 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Grain sales	8,386,118	7,488,821	-10.7	27,034,843	27,687,403	2.4
Farm supply sales	1,034,275	1,103,491	6.7	2,914,445	5,083,479	74.4
Total sales	9,420,393	8,592,312	-8.6	29,949,288	32,770,882	9.4
Cost of sales	-9,052,855	-8,198,619	-9.4	-28,812,678	-31,415,908	9.0
Margins on sales	367,538	393,693	7.1	1,136,610	1,354,974	19.2
Other operating income	654,016	791,176	21.0	1,523,259	2,156,558	41.6
Nonoperating income	-33,169	-87,510	(¹)	-126,450	-35,742	-71.7
Gross income	988,385	1,097,359	11.0	2,533,419	3,475,790	37.2
Labor expenses	260,666	412,914	58.4	700,822	1,253,799	78.9
Other expenses	449,251	517,365	15.2	1,087,724	1,409,396	29.6
Total expenses	709,917	930,299	31.0	1,788,546	2,663,195	48.9
Net savings ²	276,468	167,060	-40.0	744,873	812,595	9.1
Gross income per dollar expense	1.39	1.16	-15.1	1.42	1.31	-7.7
	<i>Percent</i>					
Proportion grain of total sales	69.0	67.2	-2.0	90.3	84.5	-6.4
Proportion labor of total expenses	36.7	44.4	21.0	39.2	47.1	20.2
Margins/total sales	3.90	4.56	17.4	3.80	4.13	8.7

¹More than doubled.

²Savings before income taxes and allocations.

Table 1 1—Selected grain operation data for CORN-SOYBEAN cooperatives, by sales group, 1985 and 1983

Item	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
			Percent				Percent
Storage capacity:							
Per association	Bushels	1,191,437	1,420,747	19.2	3555,391	3,618,023	1.6
Per location	Bushels	630,951	945,671	13.6	1,048,008	1,030,654	-1.7
Locations	Number	1.43	1.50	4.9	3.39	3.51	3.5
Grain marketed, total							
Wheat	Bushels	59,010	57,343	-2.8	179,420	165,976	-7.5
Corn	Bushels	1,392,294	1,218,388	-12.5	4,145,753	3,635,236	-12.3
Soybeans	Bushels	532,319	442,342	-16.9	1,429,269	1,310,269	-6.3
Sorghum	Bushels	9,512	7,196	-24.3	16,194	62,516	(¹)
Barley	Bushels	296	93	-66.6	3,299	67	-96.0
Other ²	Bushels	37,060	31,049	-16.2	52,341	44,569	-14.6
Turnover rate	Times	1.70	1.24	-27.1	1.64	1.45	-11.6
Price received ³	Collars	3.52	3.49	-0.9	3.50	3.57	2.0

¹More than doubled.²Includes oats, sunflowers, rye, and flaxseed.³Weighted average price per bushel of all grain marketed.

(Continued)

Table 1 1—Selected grain operation data for WHEAT-SORGHUM cooperatives, by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
			Percent				Percent
Storage capacity:							
Per association	Bushels	1,769,969	1,949,167	10.1	5,816,614	4,090,401	-29.7
Per location	Bushels	616,204	633,232	2.1	699,476	796,631	-11.4
Locations	Number	2.17	2.34	7.8	6.47	5.13	-20.7
Grain marketed, total							
Wheat	Bushels	1,307,239	1,278,797	-2.2	3,462,621	2,634,926	-23.9
Corn	Bushels	65,275	112,925	32.4	220,347	360,760	63.7
Soybeans	Bushels	40,397	39,771	-1.5	66,164	76,251	-13.5
Sorghum	Bushels	310,951	564,711	61.6	1905,506	1,351,636	34.4
Barley	Bushels	5,196	20,764	(¹)	10,450	29,119	(¹)
Other²	Bushels	13,421	21,256	56.4	30,304	45,295	49.5
Turnover rate	Times	1.00	1.05	5.0	.83	1.10	32.5
Price received ³	Dollars	3.27	2.95	-9.6	3.34	2.97	-11.1

¹More than doubled.²Includes oats, sunflowers, rye, and flaxseed.³Weighted average price per bushel of all grain marketed.

(Continued)

Table 11—Selected grain operation data for WHEAT-BARLEY-OATS cooperatives, by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
						<i>Percent</i>	<i>Percent</i>
Storage capacity:							
Per association	Bushels	610,479	622,176	34.7	2,295,857	1,919,550	-16.4
Per location	Bushels	395,966	546,116	36.4	616,115	363,910	-37.9
Locations	Number	1.54	1.50	-2.6	3.71	5.00	34.6
Grain marketed, total	Bushels	2,065,546	2,207,417	6.9	8,372,166	7,040,326	-15.9
Wheat	Bushels	1,049,034	1,159,518	10.5	4,016,538	4,855,312	20.9
Corn	Bushels	62,391	60,353	-3.3	171,309	31,474	-61.6
Soybeans	Bushels	66,945	93,427	39.6	120,569	5,000	-95.9
Sorghum	Bushels	2,491	1,441	42.2	0	0	—
Barley	Bushels	461,060	540,742	17.3	2,111,833	1,308,060	-36.1
Other¹	Bushels	423,625	351,936	-16.9	1,951,897	640,460	-56.9
Turnover rate	Times	3.36	2.66	-20.7	3.65	3.67	0.5
Price received²	Dollars	3.13	3.00	-4.2	2.97	3.04	2.4

¹Includes oats, sunflowers, rye, and flaxseed.

²Weighted average price per bushel of all grain marketed.

(Continued)

Table 1 1—Selected grain operation data for WHEAT-BARLEY cooperatives, by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
						<i>Percent</i>	<i>Percent</i>
Storage capacity:							
Per association	Bushels	3,555,000	3,789,028	6.6	7,265,857	6,777,545	6.7
Per location	Bushels	1,103,276	1,143,858	3.7	605,466	659,761	9.0
Locations	Number	3.22	3.31	2.6	12.00	10.27	-14.4
Grain marketed, total	Bushels	2,313,292	2,373,766	2.6	7,552,196	8,430,961	11.6
Wheat	Bushels	1,690,923	1,573,924	-6.9	6,088,455	6,412,654	5.3
Corn	Bushels	31,736	0	-100.0	76,101	115,267	47.6
Soybeans	Bushels	0	0	—	0	191,066	0.0
Sorghum	Bushels	0	0	—	0	0	—
Barley	Bushels	523,637	745,909	42.4	1,339,569	1,654,577	23.5
Other¹	Bushels	66,996	53,933	-19.5	46,071	57,375	24.5
Turnover rate	Times	.65	.63	-3.1	1.04	1.24	19.2
Price received[*]	Dollars	3.63	3.15	-13.2	3.67	3.26	-10.6

¹Includes oats, sunflowers, ye, and flaxseed.

^{*}Weighted average price per bushel of all grain marketed.

Other Income Sources

Operating income from sources other than margins on sales accounted for about one-third to two-thirds of total operating income in 1985. Its relative contribution was the same for medium-sized and large cooperatives in each respective area and was about the same in both years in three of the four areas. Other operating income averaged substantially higher per association in the Northern Plains, and rose sharply as a proportion of total operating income as margins in 1985 averaged about the same as in 1983 to significantly lower (table 10).

Nonoperating income—in most cases largely patronage refunds received from other cooperatives and a net interest adjustment—was a negative income component for most type/size groups in both 1985 and 1983 (table 10). Except for the wheat-sorghum associations, medium-sized cooperatives were affected most in both years by debt interest paid, particularly in 1985. Patronage refunds received contributed heavily to income on wheat-sorghum cooperatives.

Corn-soybean associations were affected most in both years by debt interest paid. Also affecting these cooperatives, particularly in 1985, was the partial/full writeoff of the value of their investments in other

cooperatives. In the Southern Plains, patronage refunds received contributed most to the additions to operating income realized by medium-sized grain handlers in both years and by large cooperatives in 1983. Debt interest paid and value writeoffs were predominant among large wheat-sorghum cooperatives in 1985. Debt interest paid, with one exception, was predominant among wheat-barley-oats and wheat-barley cooperatives both years. Substantial gains in assets related to unexpected natural occurrences is reflected by the addition to operating income in 1985 for large Northern Plains associations.

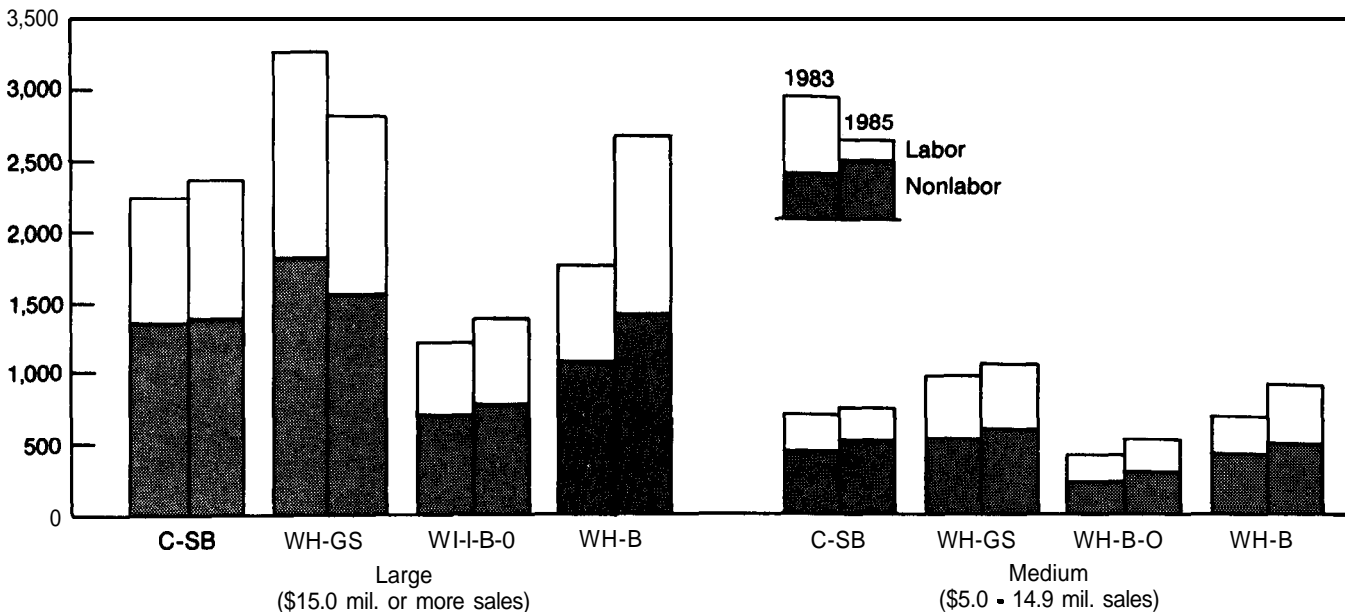
Operating Expenses

Total operating expenses averaged higher in 1985 for all association type/size groups except for large wheat-sorghum (table 10 and fig. 5). Operating expense changes for large cooperatives were not significant, whereas, except for medium-sized wheat-sorghum, operating expense increases for medium-sized cooperatives were significant. This is essentially the pattern for labor and labor-related costs and for other operating expenses. In virtually all situations, labor costs increased more than other expenses and as a proportion of total costs. This was particularly true for grain-handling associations in the Northern Plains and Pacific Northwest, reflecting their substantial increases in grain marketings and/or farm supply sales.

Figure 5

Labor and Other Operating Expenses Per Cooperative, by Size and Type of Cooperative, 1985 and 1983

Expenses (\$1,000)



Grain Storage Capacity and Turnover Rate

Grain storage capacity averaged larger in 1985 than in 1983 for medium-sized cooperatives of all four types (table 11). Bushel increases per association were similar, ranging from about 180,000 bushels in the Southern Plains to 234,000 bushels in the Pacific Northwest. Storage capacity averaged smaller for the large cooperatives in the three wheat areas and about the same in the Corn Belt. It appears that medium-sized cooperatives were more inclined to expand storage capacity while the tendency among large cooperatives was to reduce it.

More cooperatives increased their storage capacity than reduced capacity for all type/size groups and, except for first-handlers in the Southern Plains, far more so for the medium-sized ones than for the large ones of each type. Those that expanded storage capacity during the 1983-85 period reported considerably smaller storage capacities in 1983 than did those that reduced capacity.

Turnover rates, a measure of grain storage capacity use efficiency, were unchanged-to-lower in 1985 for **medium-sized cooperatives** and unchanged-to-higher for large ones. They dropped most noticeably in the Corn Belt, where increased storage capacity combined with sharply reduced grain marketings (table 11). Rates were highest in both years in the Northern Plains and lowest in both years for medium-sized and large associations in the Pacific Northwest and Southern Plains, respectively.

Membership

Reported cooperative membership averaged lower in 1985 than in 1983 for most type/size groups, usually because of fewer grain-producer members. Nongrain-producer members averaged higher for half of the groups and rose as a proportion of total membership for all but the large wheat-barley-oats associations (table 12). In many cases, these membership figures are not well maintained, and thus are probably not accurate.

Table 12—Membership composition of first-handlers-of-grain cooperatives, by typo and sales group, 1995 and 1993

Type of cooperative	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
<i>Corn-soybean:</i>							
Grain producers	Number	402	371	-7.7	1,331	1,015	-23.7
Other members	Number	<u>221</u>	<u>222</u>	.5	<u>476</u>	<u>646</u>	35.7
Total	Number	623	593	-4.6	1,607	1,661	-6.1
Grain of total	Percent	64.5	62.6		73.7	61.1	
<i>Wheat-sorghum:</i>							
Grain producers	Number	611	561	-4.9	1,630	1,172	-36.0
Other members	Number	404	<u>446</u>	10.4	<u>1,679</u>	<u>1,266</u>	-24.6
Total	Number	1,015	1,027	1.2	3,509	2,436	-30.5
Grain of total	Percent	60.2	56.6		52.2	46.1	
<i>Wheat-barley-oats:</i>							
Grain producers	Number	503	431	-14.3	1,465	1,105	-24.6
Other members	Number	171	<u>230</u>	34.5	495	137	-72.3
Total	Number	674	661	-1.9	1,960	1,242	-36.6
Grain of total	Percent	74.6	65.2		74.7	69.0	
<i>Wheat-barley:</i>							
Grain producers	Number	247	232	-6.1	716	450	-36.0
Other members	Number	7 2	<u>71</u>	-1.4	<u>173</u>	<u>402</u>	132.4
Total	Number	319	303	-5.0	669	660	-3.3
Grain of total	Percent	77.4	76.6		60.5	53.3	

BALANCESHEET

Assets

Total value of assets per association in 1985 ranged from \$2.8 million to \$3.8 million for medium-sized firms to \$7.9 to \$10.0 million for the large ones (table 13). Asset values averaged lower in 1985 than in 1983 in the Corn Belt and higher in the Pacific Northwest. For cooperatives in the Northern and Southern Plains, they were higher for the medium-sized ones and lower for the large ones. This

was the pattern for current assets and, except for the large Northern Plains cooperatives, the pattern for fixed assets. Changes in inventory value accounted for most of the current assets changes for **most** type/size groups. Net book value of **fixed** assets as a proportion of total assets was smallest in both years for the wheat-barley-oats cooperatives (those with the smallest grain storage capacities) and highest for the wheat-barley cooperatives (those with the largest grain storage capacities). Member ownership (equity) of assets averaged higher per association in 1985 than in 1983 for the medium-sized

Table 13—Condensed balance sheet data for CORN-SOYBEAN cooperatives, by sales group, 1985 and 1983

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Current assets	1,319,916	1,112,149	-15.7	3,965,367	3,419,267	-13.8
Investments	583,498	810,893	8.4	1,619,485	1,604,271	-.9
Fixed assets	1,060,432	1,056,585	-.4	3,166,766	2,764,174	-12.7
Other assets	17,238	22,571	31.0	37,434	122,179	(¹)
Total assets	2,961,080	2,801,998	-5.4	8,789,052	7,909,891	-10.0
Current liabilities	899,088	889,888	-23.3	3,055,353	2,491,826	-18.4
Long-term liabilities	394,528	305,895	-22.5	1,466,769	1,414,821	-3.5
Equity	1,667,466	1,806,417	8.3	4,266,930	4,003,244	-8.2
Total liabilities and equity	2,961,080	2,801,998	-5.4	8,789,052	7,909,891	-10.0
Working capital ²	420,830	422,283	.3	910,014	927,441	1.9
Total sales/dollar assets	3.08	2.91	-5.5	3.04	3.20	5.3
			<i>Percent</i>			
Net savings/equity	8.37	2.39	-71.4	7.89	4.00	-47.9
			<i>Ratio</i>			
Current ratio	1.47	1.81	9.5	1.30	1.37	5.4
Liabilities/net worth (equity)	.78	.55	-29.5	1.08	.98	-7.5
Equity/total assets	.56	.64	14.3	.49	.51	4.1
Total debt/total assets	.25	.19	-24.0	.32	.29	-9.4
Total debt/equity	.44	.30	-31.8	.66	.58	-12.1

¹More than doubled.

²Current assets minus current liabilities.

(Continued)

cooperatives and the large wheat-barley ones, and lower for the other large cooperatives. The proportion of total assets owned by the membership (equity/assets) improved during 1983-85 except in the Pacific Northwest, and was at least 51 percent in 1985 except for the large cooperatives in the Northern Plains (table 13). **Medium-sized** first-handler associations of all types owned a higher proportion of their assets in both years than did their larger counterparts, but in general the large cooperatives improved their ownership position more during this period.

Table 13—Condensed balance sheet data for WHEAT-SORGHUM cooperatives, by sales group, 1985 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.0			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Current assets	1507,334	1,564,815	3.8	5,121,655	3,768,752	-28.4
Investments	868,707	975,089	12.2	2,601,056	2,214,588	-14.9
Fixed assets	1,252,291	1,274,716	1.8	4,019,131	3,265,061	-18.8
Other assets	19,762	23,775	29.3	51,458	39,903	-22.5
Total assets	3,648,094	3,838,375	5.2	11,793,300	9,288,304	-21.2
Current liabilities	949,337	904,885	4.7	3,787,044	2,320,349	-38.7
Long-term liabilities	407,788	441,800	8.3	1,348,401	1,093,794	-18.9
Equity	2,290,969	2,491,890	8.8	6,657,855	5,874,161	-11.8
Total liabilities and equity	3,648,094	3,838,375	5.2	11,793,300	9,288,304	-21.2
Working capital ²	557,997	859,930	18.3	1,334,611	1,448,403	8.5
Total sales/dollar assets	2.29	2.28	-.4	2.07	2.37	14.5
			<i>Percent</i>			
Net savings/equity	9.00	7.12	-20.9	11.88	5.03	-56.9
			<i>Ratio</i>			
Current ratio	1.59	1.73	8.8	1.35	1.82	20.0
Liabilities/net worth (equity)	.59	.54	-8.5	.77	.58	-24.7
Equity/total assets	.63	.65	3.2	.56	.63	12.5
Total debt/total assets	.23	.21	-8.7	.23	.25	8.7
Total debt/equity	.36	.32	-11.1	.41	.39	4.9

¹More than doubled.

²Current assets minus current liabilities.

(Continued)

Table 13—Condensed balance sheet data for WHEAT-BARLEY-OATS cooperatives, by sales group, 1995 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Current assets	1,465,609	1,722,980	17.6	8,378,873	5,833,731	30.4
Investments	410,402	453,715	10.6	1,371,290	1,191,408	-13.1
Fixed assets	727,323	994,206	36.7	2,649,698	2,922,461	10.3
Other assets	30,951	20,403	34.1	21,762	6,131	-71.9
Total assets	2,634,285	3,191,304	21.1	12,421,643	9,953,731	-19.9
Current liabilities	1,149,676	1,360,392	16.3	7,561,588	4,924,562	-34.9
Long-term liabilities	156,303	216,369	36.7	626,615	1,067,089	26.7
Equity	1,326,306	1,614,523	21.7	4,031,240	3,962,080	-1.7
Total liabilities and equity	2,634,285	3,191,304	21.1	12,421,643	9,953,731	-19.9
Working capital ²	315,933	362,566	14.6	617,265	909,169	11.2
Total sales/dollar assets	2.67	2.53	-11.6	2.20	2.46	12.7
			<i>Percent</i>			
Net savings/equity	9.56	7.47	-21.9	6.50	11.79	36.7
			<i>Ratio</i>			
Current ratio	1.27	1.27	0.0	1.11	1.16	6.3
Liabilities/net worth (equity)	.99	.98	-1.0	2.06	1.51	-27.4
Equity/total assets	.50	.51	2.0	.32	.40	25.0
Total debt/total assets	.12	.11	-6.3	.08	.15	67.5
Total debt/equity	.25	.21	-16.0	.25	.37	46.0

¹More than doubled.
²Current assets minus current liabilities.

(Continued)

Table 13—Condensed balance sheet data for WHEAT-BARLEY cooperatives, by sales group, 1985 and 1983—Continued

Item	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Current assets	1,023,161	1,137,180	11.1	3,470,665	4,566,116	31.6
Investments	245,604	267,167	16.6	631,626	1,081,194	30.0
Fixed assets	1,678,994	2,127,632	26.7	3,943,659	4,376,177	11.0
Other assets	46,542	13,173	-72.9	161,956	47,662	-70.4
Total assets	2,996,501	3,565,172	19.0	8,407,906	10,071,369	19.6
Current liabilities	576,703	626,965	43.4	2,734,148	3,554,241	30.0
Long-term liabilities	363,206	536,256	46.2	1,137,116	1,144,110	.6
Equity	2,056,592	2,199,931	7.0	4,536,642	5,373,018	16.4
Total liabilities and equity	2,996,501	3,565,172	19.0	8,407,906	10,071,369	19.6
Working capital*	446,456	310,195	-30.5	736,517	1,011,875	37.4
Total sales/dollar assets	3.14	2.41	-23.2	3.56	3.25	-6.7
			<i>Percent</i>			
Net savings/equity	13.54	7.59	-43.9	16.42	15.12	-7.9
			<i>Ratio</i>			
Current ratio	1.77	1.36	-22.0	1.27	1.26	0.6
Liabilities/net worth (equity)	.46	.62	34.6	.85	.87	2.4
Equity/total assets	.69	.62	-10.1	.54	.53	-1.9
Total debt/total assets	.17	.25	47.1	.26	.24	-7.7
Total debt/equity	.25	.40	60.0	.49	.45	-6.2

*More than doubled.

*Current assets minus current liabilities.

Equity Capital

Equity capital represents the member-ownership and control of the cooperative, and serves as a buffer for creditors in absorbing operating losses as well as declines in asset values. Many cooperatives found themselves adjusting to both during 1983-85.

Equity capital usually takes on the form of stock (common and preferred), the **noncash** portion of patronage refunds declared, and retained earnings. The relative importance of these forms of equity varies considerably among types of cooperatives, and was similar for medium-sized and large associations for both years (table 14).

Common stock, generally tied to voting or membership by grain cooperatives, is a relatively minor source (less than 10 percent) of equity capital for wheat-barley-oats and wheat-barley cooperatives. Allocated capital credits, mostly patronage refunds, was uniformly the most

important form of equity, and relatively more so for the wheat-barley-oats and wheat-barley associations.

Unallocated equity accounted for one-fifth to one-fourth of the total for most type/size groups.

Debt Structure

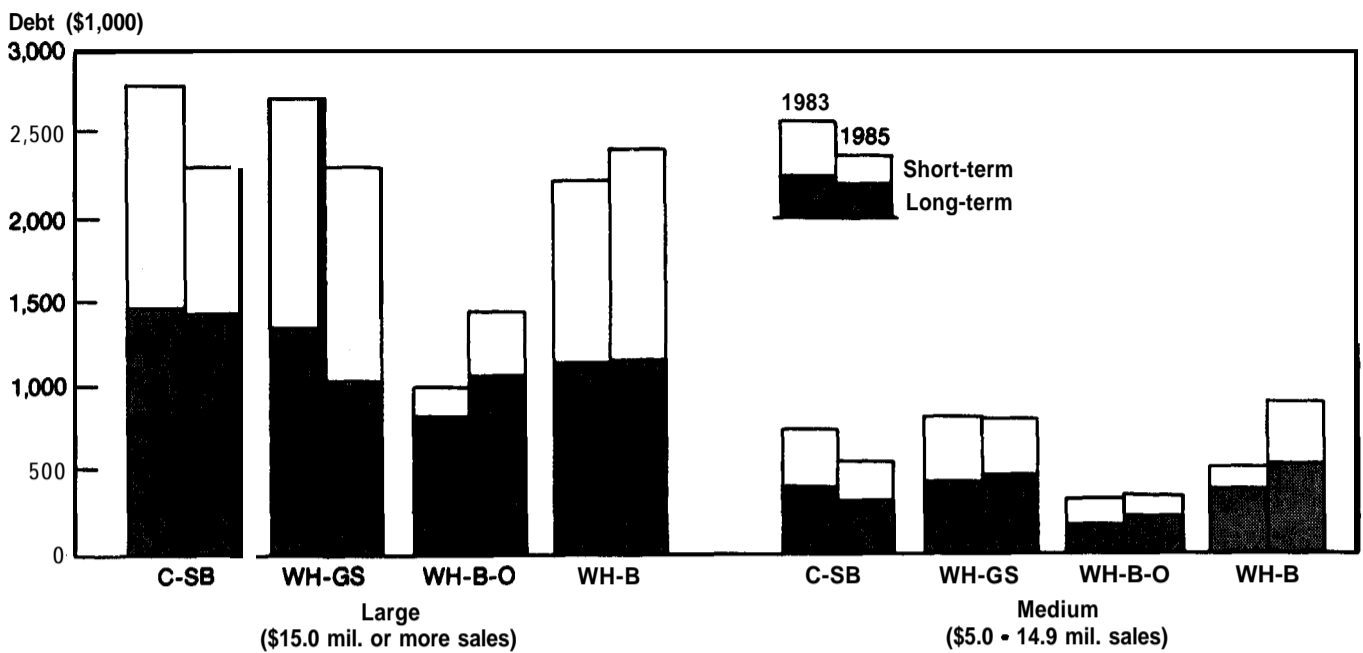
The extent and nature of **indebtedness** varied significantly among the grain-handling associations studied. The Northern Plains and Pacific Northwest local first-handlers tended to have the lowest debt levels per association in 1983 (table 15 and figure 6). Total debt levels for these four type/size groups averaged higher 2 years later. In contrast, debt levels, particularly of short-term debt, for the Corn Belt and Southern Plains cooperatives averaged considerably lower in 1985 than in 1983. Despite this, cooperatives in the Corn Belt, particularly the large ones, for which debt to equity ratios averaged 0.66 and 0.58 in 1983 and 1985, respectively, remained financially troubled. Not only were their net savings levels relatively lower in both years, but their 1983-85 declines in savings

Table 1 4—Types and amount of member equity capital, by type and sales group of cooperative, 1985 and 1983

Type of cooperative	Unit	Sales group (million dollars)			
		5.0-14.9		15.0 or more	
		1983	1985	1983	1985
<i>Corn-soybean:</i>					
Member equity	Dollars	1,667,466	1,806,417	4,266,930	4,003,244
Common/preferred stock	Percent	29.5	29.0	27.2	29.3
Allocated	Percent	43.0	43.2	50.4	47.6
Unallocated	Percent	27.5	27.8	22.4	23.1
<i>Wheat-sorghum:</i>					
Member equity	Dollars	2,290,969	2,491,890	6,657,855	5,874,161
Common/preferred stock	Percent	30.6	27.8	36.8	24.7
Allocated	Percent	45.6	47.2	44.5	56.3
Unallocated	Percent	23.8	25.0	18.7	19.0
<i>Wheat-barley-oats:</i>					
Member equity	Dollars	1,326,306	1,614,523	4,031,240	3,962,080
Common/preferred stock	Percent	8.5	4.6	1.7	5.8
Allocated	Percent	74.8	73.6	82.0	75.2
Unallocated	Percent	18.7	21.6	16.3	19.0
<i>Wheat-barley:</i>					
Member equity	Dollars	2,056,592	2,199,931	4,536,642	5,373,018
Common/preferred stock	Percent	7.1	8.7	8.1	7.9
Allocated	Percent	65.5	68.8	73.2	65.3
Unallocated	Percent	27.4	22.5	18.7	26.8

Figure 8

Short-and-Long-Term Debt Per Cooperative, by Size and Type of Cooperative, 1985 and 1983



were very sharp (table 1).

Except for the large wheat-sorghum cooperatives, long-term debt averaged higher in 1985 for the wheat associations, particularly the medium-sized ones.

A look at first-handler associations for which data were available for both years provides insight into their handling of their debt situation during 1983-85. Their adjusting was far from uniform. Overall, 70 to 72 percent of the cooperatives reduced their debt while about 26 percent took on more debt. These percentages varied widely among the type/size groups studied (table 16). Retrenching was most prevalent in the Corn Belt, where close to 80 percent reduced debt load and fewer than one in five increased debt. Dollar reductions for medium-sized cooperatives there averaged second to those of the wheat-sorghum area while increases averaged relatively small.

Key factors associated with and affected by changes in debt structure are summarized for all types of cooperative associations in table 17 and for selected type/size groups in table 18. First-handler cooperatives of both sizes that reduced debt load tended to be more highly leveraged in 1983 than were those that increased debt load. With member equity levels about the same in both years for the medium-sized cooperatives, their ratios of debt to equity

for the two debt groups were reversed between 1983 and 1985 (table 17). Large cooperatives were considerably more highly leveraged than medium-sized ones in both years, which helps explain why their expansion rates were considerably slower than those for medium-sized cooperatives that increased debt.

Typifying first-handlers that reduced debt between 1983 and 1985 were a reduction of over 8 percent in net value of fixed assets; modest increases in grain storage capacity and total expenses, particularly labor; and lower grain marketings and sales, particularly of grain. The net effect of all income and expenses changes during this period were drops in net savings of 48 and 41 percent. Increased indebtedness paid off, at least in the short run, for a slightly higher proportion of the large cooperatives and of those that increased debt load. For example, among all large associations, 36 percent of those that increased debt reported higher net savings in 1985 than in 1983, compared with 29 percent of those that reduced debt (table 19). These relationships varied significantly among cooperative type/size groups, and reflect the comparatively poor economic conditions that confronted cooperatives in the Corn Belt. Interestingly, gross income generated per dollar expended averaged about the same for both size groups in each year. This also held true for the cooperatives that expanded.

Table 15—Debt structure of first-handlers-of-grain cooperatives, by type and sales group, 1888 and 1883

Type of cooperative	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1993	1985	1985/1993	1993	1985	1985/1993
				Percent			Percent
Corn-soybean:							
Short-term debt	Dollars	343,283	232,153	-32.4	1,367,182	903,516	-33.9
Long-term debt	Dollars	<u>394,528</u>	<u>305,695</u>	-22.5	1,466,769	1,414,821	-3.5
Total	Dollars	737,811	537,848	-27.1	2,833,951	2,318,339	-18.2
Long-term of total	Percent	53.5	56.8		51.8	61.0	
Wheat-sorghum:							
Short-term debt	Dollars	415,478	347,842	-16.3	1,384,192	1,214,411	-12.3
Long-term debt	Dollars	<u>407,788</u>	<u>441,600</u>	8.3	<u>1,348,401</u>	1,093,795	-18.9
Total	Dollars	823,266	789,442	-4.1	2,732,593	2,308,206	-15.5
Long-term of total	Percent	49.5	55.9		49.3	47.4	
Wheat-barley-oats:							
Short-term debt	Dollars	170,606	119,227	-30.1	164,428	383,261	(¹)
Long-term debt	Dollars	<u>158,303</u>	<u>216,369</u>	36.7	<u>628,815</u>	1,067,089	28.7
Total	Dollars	326,909	335,616	2.0	993,243	1,450,350	46.0
Long-term of total	Percent	48.1	64.5		83.4	73.6	
Wheat-barley:							
Short-term debt	Dollars	144,460	343,006	(¹)	1,089,951	1,269,888	16.5
Long-term debt	Dollars	<u>363,206</u>	<u>538,256</u>	46.2	1,137,116	1,144,110	.6
Total	Dollars	507,666	881,262	73.6	2,227,067	2,413,998	8.4
Long-term of total	Percent	71.5	61.1		51.1	47.4	

¹More than doubled.

Table 16—Proportion of first-handlers reduced and increased debt*, by type and sales group, 1983-85

Type of cooperative	Unit	Sales group (million dollars)	
		5.0-14.9	15.0 or more
<i>Corn-soybsen:</i>			
Proportion reduced	Percent	79.2	77.8
Amount	Dollars	318,988	1,070,587
Proportion increased	Percent	17.8	19.8
Amount	Dollars	240,831	703,107
<i>Wheat-sorghum:</i>			
Proportion reduced	Percent	59.8	38.4
Amount	Dollars	344,925	1,865,919
Proportion increased	Percent	40.4	83.8
Amount	Dollars	419,928	1,022,127
<i>Wheat-barley-oats:</i>			
Proportion reduced	Percent	89.8	33.3
Amount	Dollars	282,903	275,400
Proportion increased	Percent	30.4	88.7
Amount	Dollars	438,080	488,813
<i>Wheat-barley:</i>			
Proportion reduced	Percent	28.8	71.4
Amount	Dollars	178,882	505,785
Proportion increased	Percent	71.4	28.8
Amount	Dollars	473,240	1,189,223

*Based on cooperatives reporting comparable data for both years.

Table 17—Factors associated with reduced and increased debt, all first-handlers of grain, by sales group, 1985 and 1983

Item	Unit	Sales group (\$5.0 - \$14.9 million)					
		Reduced debt			Increased debt		
		1993	1985	1985/1983	1983	1995	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	889,088	553,884	-38.3	521,788	840,451	81.1
Short-term	Dollars	383,040	229,121	40.2	181,070	354,298	95.7
Long-term	Dollars	488,028	324,783	-33.2	340,718	488,153	42.7
Net savings	Dollars	175,497	90,511	48.4	207,128	90,470	-58.3
Total expenses	Dollars	834,999	847,078	1.4	712,837	825,493	15.8
Labor	Dollars	347,899	358,733	3.1	297,385	347,077	18.7
Other	Dollars	487,109	488,343	.3	415,472	478,418	15.1
Total sales	Dollars	9,638,214	8,395,556	-12.9	8,884,091	9,066,267	2.1
Grain	Dollars	7438,392	6,217,256	-18.4	7,080,124	7,218,423	2.0
Farm supplies	Dollars	2,199,822	2,178,300	-1.0	1,803,967	1847,844	2.4
Grain marketing ⁸	Bushels	2,162,072	1,875,106	-13.3	2,058,989	2,267,803	10.1
Grain storage capacity	Bushels	1,443,672	1,548,942	7.3	1,638,823	1,855,961	13.2
Fixed assets	Dollars	1,271,469	1,164,974	-8.4	1,185,206	1,351,045	14.0
Ratios:							
Current	Number	1.48	1.55	4.7	1.48	1.42	4.1
Debt/equity	Number	.43	.28	34.9	.28	.44	57.1
Gross income per dollar expenses	Dollars	1.21	1.11	-8.3	1.29	1.11	-14.0
Net savings/equity	Percent	8.8	4.5	48.9	11.0	4.7	-57.3

*Based on cooperatives reporting comparable data for both years.

(Continued)

Table 17-Factors **associated** with **reduced** and **increased debt**, all **first-handlers** of **grain**,* by • aloa group, 1995 and **1983—Continued**

Item	Unit	Sales group (\$15.0 million or more)					
		Reduced debt			Increased debt		
		1983	1985	1985/1983	1989	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	2,892,819	1,889,492	-34.7	2,531,443	3,294,437	30.1
Short-term	Dollars	1,416,385	701,419	-50.5	1,134,055	1,743,174	53.7
Long-term	Dollars	1,476,434	1,188,073	-19.5	1,397,388	1,551,263	11.0
Net savings	Dollars	389,972	218,983	40.8	598,857	303,805	-49.3
Total expenses	Dollars	2,281,595	2,317,585	1.8	2,847,095	3,075,315	8.0
Labor	Dollars	892,979	989,892	8.8	1,181,557	1,332,192	12.7
Other	Dollars	1,388,616	1,347,693	-2.9	1,885,538	1,743,123	4.7
Total sales	Dollars	27,210,499	25,221,147	-7.3	31,898,581	31,050,877	-2.7
Grain	Dollars	21,101,824	18,773,128	-11.0	23,420,950	21,587,884	-7.8
Farm supplies	Dollars	6,108,675	6,448,019	5.8	8,477,631	9,462,993	11.8
Grain marketings	Bushels	6,161,403	5,573,907	-9.5	6,205,841	6,285,808	1.3
Grain storage capacity	Bushels	3,967,685	4,089,884	3.1	4,442,285	4,651,006	4.7
Fixed assets	Dollars	3,268,752	2,999,496	-8.2	3,625,493	3,888,306	7.2
Ratios:							
Current	Number	1.31	1.44	9.9	1.31	1.25	-4.8
Debt/equity	Number	.65	.42	-35.4	.47	.60	27.7
Gross income per dollar expenses	Dollars	1.18	1.09	-8.0	1.21	1.10	-9.1
Net savings/equity	Percent	8.3	4.8	42.2	11.1	5.5	-50.5

*Based on cooperatives reporting comparable data for both years.

Table 18—Factors associated with reduced and increased debt, corn-soybean first-handlers of grain,* by sales group, 1988 and 1983

Item	Unit	Sales group (\$5.0 - \$14.9 million)					
		Reduced debt			Increased debt		
		1993	1995	1985/1983	1983	1985	1905/1903
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	665,676	566,690	36.0	513,256	753,667	46.9
Short-term	Dollars	370,555	234,051	-36.6	231,164	366,061	56.3
Long-term	Dollars	515,123	332,639	-35.4	262,072	367,626	37.5
Net savings (loss)	Dollars	169,742	50,244	-70.4	149,005	(15,294)	
Total expenses	Dollars	616,604	823,339	.6	666,650	763,513	17.5
Labor	Dollars	337,666	347,611	2.9	276,696	316,475	14.3
Other	Dollars	460,936	475,526	-1.1	367,954	465,036	19.9
Total sales	Dollars	10,074,920	8,430,544	-16.3	8,778,358	8,711,190	-8
Grain	Dollars	7,850,645	6,220,996	-20.6	6,998,540	7,027,493	.4
Farm supplies	Dollars	2,224,275	2,209,548	-.7	1,779,818	1,683,697	-5.4
Grain marketings	Bushels	2,214,045	1,773,593	-19.9	1,918,692	1,998,202	4.1
Grain storage capacity	Bushels	1,358,275	1,456,998	7.3	1,088,925	1,469,429	34.9
Fixed assets	Dollars	1,263,505	1,136,709	-10.0	947,056	1,049,696	10.6
Ratios:							
Current	Number	1.50	1.56	4.0	1.60	1.39	-13.1
Debt/equity	Number	.45	.29	-35.6	.31	.47	51.6
Gross income per dollar expenses	Dollars	1.21	1.06	-12.4	1.22	.98	-19.7
Net savings/equity	Percent	6.7	2.6	-70.1	9.0	(1.0)	—

*Based on cooperatives reporting comparable data for both years.

(Continued)

Table 18—Factors associated with reduced and increased debt, wheat-sorghum first-handlers of grain,* by sales group, 1995 and 1983—Continued

Item	Unit	Sales group (\$5.0 - \$14.9 million)					
		Reduced debt			Increased debt		
		1953	1995	1985/1993	1983	1995	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	966,384	821,480	-37.8	580,237	980,184	75.0
Short-term	Dollars	448,523	277,478	-37.9	215,342	435,753	102.4
Long-term	Dollars	519,881	343,982	-33.8	344,895	544,411	57.8
Net savings	Dollars	238,335	234,599	-1.8	274,517	128,010	-54.1
Total expenses	Dollars	1,121,384	1,097,633	-2.1	905,817	990,404	9.3
Labor	Dollars	493,433	479,844	-2.8	397,543	430,129	8.2
Other	Dollars	827,951	817,789	-1.8	508,274	580,275	10.2
Total sales	Dollars	9,451,046	8,397,007	-11.2	8,629,115	9,174,219	8.3
Grain	Dollars	6,580,739	5,661,661	-14.0	6,096,219	6,682,012	9.8
Farm supplies	Dollars	2,870,307	2,735,346	4.7	2,532,896	2,492,207	-1.8
Grain marketings	Bushels	2,035,402	1,968,989	-3.3	1,907,386	2,236,093	17.2
Grain storage capacity	Bushels	2,031,866	2,220,964	9.3	1,686,088	1,684,365	-.1
Fixed assets	Dollars	1,519,052	1,398,280	-8.0	1,107,399	1,208,201	9.1
Ratios:							
Current	Number	1.81	1.84	14.3	1.88	1.60	-3.8
Debt/equity	Number	.36	.22	-38.9	.26	.45	73.1
Gross income per dollar expenses	Dollars	1.21	1.21	.0	1.30	1.13	-13.1
Net savings/equity	Percent	9.0	8.3	-7.8	12.7	5.8	-54.3

*Based on cooperatives reporting comparable data for both years.

(Continued)

Table 18—Factors associated with reduced and increased debt, wheat-barley-oats first-handlers of grain,* by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (\$5.0 • \$14.9 million)					
		Reduced debt			Increased debt		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	800,814	317,912	47.1	328,975	785,035	134.0
Short-term	Dollars	317,954	144,438	-54.8	102,735	202,088	98.7
Long-term	Dollars	282,880	173,474	-38.7	224,240	582,987	151.1
Net savings	Dollars	124,582	103,511	-18.9	109,742	118,548	8.0
Total expenses	Dollars	474,311	515,238	8.6	837,182	708,741	10.9
Labor	Dollars	210,232	237,873	13.1	278,550	308,238	10.7
Other	Dollars	284,079	277,585	5.1	358,812	398,503	11.1
Total sales	Dollars	7,522,709	7,094,701	-5.7	12,231,667	11,057,886	-9.8
Grain	Dollars	6,128,858	5,797,820	-5.4	10,400,636	8,982,463	-13.8
Farm supplies	Dollars	1,393,851	1,296,881	-7.0	1,831,031	2,075,423	13.3
Grain marketings	Bushels	1,987,212	1,882,431	-5.3	3,078,875	2,941,046	4.5
Grain storage capacity	Bushels	832,875	759,825	20.0	1,030,286	1,075,286	4.4
Fixed assets	Dollars	878,888	840,841	-4.1	1,235,920	1,514,494	22.5
Ratios:							
Current	Number	1.22	1.24	1.8	1.13	1.14	.9
Debt/equity	Number	.49	.24	-51.0	.18	.44	144.4
Gross income per dollar expenses	Dollars	1.28	1.20	-4.8	1.17	1.17	.0
Net savings/equity	Percent	10.1	7.9	-21.8	8.0	8.8	13.3

● Based on cooperatives reporting comparable data for both years.

(Continued)

Table 18—Factors associated with reduced and increased debt, wheat-barley first-handlers of grain,* by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (\$5.0 - \$14.9 million)					
		Reduced debt			Increased debt		
		1983	1995	1985/1983	1993	1995	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	775,152	598,270	-22.8	580,885	1,033,926	84.4
short-term	Dollars	453,889	379,583	-18.4	89,872	333,058	378.7
Long-term	Dollars	321,283	218,707	-31.9	490,813	700,870	42.8
Net savings	Dollars	231,018	48,073	-80.1	282,812	212,828	-24.7
Total expenses	Dollars	1,137,522	1,313,534	15.5	594,011	802,884	35.2
Labor	Dollars	482,083	574,177	24.3	208,735	388,882	78.8
Other	Dollars	875,439	739,357	9.5	385,278	434,182	12.7
Total sales	Dollars	10,489,050	10,160,244	-3.1	8,386,724	8,391,507	.1
Grain	Dollars	8583,303	8,709,062	1.5	7,622,577	7347,185	-3.8
Farm supplies	Dollars	1905,747	1,451,182	-23.9	784,147	1,044,322	38.7
Grain marketings	Bushels	2,551,142	2845,121	3.7	2,127,226	2,378,176	11.8
Grain storage capacity	Bushels	3,748,500	3849,000	2.7	3,458,800	3,892,845	12.5
Fixed assets	Dollars	1,777,958	1,814,347	2.0	1,822,319	2,416,240	32.8
Ratios:							
Current	Number	1.58	1.53	-3.2	1.74	1.30	-25.3
Debt/equity	Number	.30	.23	-23.3	.30	.47	58.7
Gross income per dollar expenses	Dollars	1.20	1.04	-13.3	1.48	1.27	-14.2
Net savings/equity	Percent	9.0	1.8	-80.0	14.9	9.7	-34.9

*Based on cooperatives reporting comparable data for both years.

Table 18—Factors associated with reduced and increased debt, corn-soybean first-handlers of grain, * by sales group, 1985 and 1983—Continued

Item	Unit	Sales group (\$15.0 million or more)					
		Reduced debt			Increased debt		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	2,962,990	1,892,346	-36.1	2,848,469	3,551,576	24.7
Short-term	Dollars	1,423,500	623,771	-56.2	1,309,348	1,973,473	50.7
Long-term	Dollars	1,539,490	1,268,575	-17.6	1,539,121	1,578,103	2.5
Net savings	Dollars	275,205	131,724	-52.1	420,339	157,460	-62.5
Total expenses	Dollars	2,248,279	2,287,836	1.6	2,546,165	2,701,362	6.1
Labor	Dollars	671,656	953,222	9.3	960,175	1,109,979	15.6
Other	Dollars	1,376,423	1,334,614	-3.0	1,585,990	1,591,383	.3
Total sales	Dollars	26,906,442	24,704,133	-6.2	30,859,303	29,414,450	-4.7
Grain	Dollars	20,798,910	18,206,630	-12.5	24,306,259	22,010,591	-9.4
Farm supplies	Dollars	6,107,532	6,497,503	6.4	6,553,044	7,403,859	13.0
Grain marketings	Bushels	6,084,967	5,245,993	-13.6	6,106,861	5,578,909	-6.6
Grain storage capacity	Bushels	3,700,952	3,729,632	.8	4,036,889	4,449,938	10.2
Fixed assets	Dollars	3,203,549	2,863,188	-10.6	3,313,002	3,390,592	2.3
Ratios:							
Current	Number	1.26	1.40	9.4	1.27	1.22	-3.9
Debt/equity	Number	.71	.46	-35.2	.65	.80	23.1
Gross income per dollar expenses	Dollars	1.12	1.06	-5.4	1.17	1.06	-9.4
Net savings/equity	Percent	6.6	3.2	-51.5	9.6	3.6	-62.5

● 9aeed on cooperatives reporting comparable data for both years.

(Continued)

Table 18—Factors associated with reduced and increased debt, wheat-sorghum first-handlers of grain,* by sales group, 1983 and 1985—Continued

Item	Unit	Sales group (\$15.0 million or more)					
		Reduced debt			Increased debt		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Total debt	Dollars	4,049,610	2,183,690	-46.1	1,832,922	2,855,049	55.7
Short-term	Dollars	2,641,121	1,396,297	-47.1	610,926	1,634,055	101.5
Long-term	Dollars	1,408,489	767,393	-44.1	1,021,994	1,220,994	19.5
Net savings	Dollars	639,032	216,617	56.1	743,466	256,110	65.3
Total expenses	Dollars	3,247,174	2,810,627	-13.4	2,956,232	3,294,297	11.4
Labor	Dollars	1,355,322	1,234,452	-6.9	1,377,132	1,482,795	7.7
Other	Dollars	1,891,852	1,576,175	-16.7	1,579,100	1,811,502	14.7
Total sales	Dollars	22,742,028	18,697,011	-17.6	24,219,488	25,698,794	6.1
Grain	Dollars	15,920,788	11,163,530	-29.9	14,221,179	14,681,839	3.2
Farm supplies	Dollars	6,821,240	7,533,481	10.4	9,998,309	11,016,955	10.2
Grain marketings	Bushels	4,715,710	4,039,627	-14.3	4,259,551	5,047,346	16.5
Grain storage capacity	Bushels	4,824,661	4,938,002	2.3	3,961,233	4,468,312	12.6
Fixed assets	Dollars	3,577,033	3,421,901	4.3	3,510,707	3,633,031	3.5
Ratios:							
Current	Number	1.22	1.16	-4.9	1.72	1.62	-5.6
Debt/equity	Number	.70	.38	45.7	.28	.43	53.6
Gross income per dollar expenses	Dollars	1.20	1.06	-10.0	1.25	1.06	-13.6
Net savings/equity	Percent	11.1	3.6	65.6	11.3	3.9	-65.5

*Based on cooperatives reporting comparable data for both years.

Table 19—Proportion of cooperatives better and worse off in 1985*, by debt status, by type and sales group

Type of cooperative	Sales group (million dollars)							
	6.0 - 14.9				15.0 or more			
	Reduced debt		Increased debt		Reduced debt		Increased debt	
	Better	worse	Better	Worse	Better	Worse	Better	worae
	<i>Percent</i>							
All associations	26.0	74.0	28.9	71.1	28.6	71.4	35.5	64.5
Corn-soybean	19.8	80.2	17.9	82.1	27.0	73.0	43.8	56.2
Wheat-sorghum	46.4	53.6	21.1	78.9	0.0	100.0	14.3	85.7
Wheat-barley-oats	37.5	62.5	71.4	28.6	50.0	50.0	50.0	50.0
Wheat-barley	0.0	100.0	40.0	60.0	100.0	0.0	50.0	50.0

*Based on cooperatives reporting comparable data for both years. Better versus worse off measure used was change in net savings.

Table 20—Selected financial performance indicators for first-handlers-of-grain cooperatives, by type and sales group, 1985 and 1983

Performance Indicator	Sales group (million dollars)					
	5.0-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Number --</i>		<i>Percent</i>	<i>-- Number --</i>		<i>Percent</i>
Current ratio:						
Corn-soybean	1.47	1.61	9.5	1.30	1.37	5.4
Wheat-sorghum	1.59	1.73	8.8	1.35	1.62	20.0
Wheat-barley-oats	1.27	1.27	0.0	1.11	1.18	6.3
Wheat-barley	1.77	1.38	-22.0	1.27	1.28	.8
Liabilities/net worth (equity) ratio:						
Corn-soybean	.78	.55	-29.5	1.06	.98	-7.5
Wheat-sorghum	.59	.54	-8.5	.77	.58	-24.7
Wheat-barley-oats	.99	.98	-1.0	2.08	1.51	-27.4
Wheat-barley	.46	.62	34.8	.85	.87	2.4
Debt/equity ratio:						
Corn-soybean	.44	.30	-31.8	.66	.58	-12.1
Wheat-sorghum	.38	.32	-15.8	.41	.39	4.9
Wheat-barley-oats	.25	.21	-16.0	.25	.37	48.0
Wheat-barley	.25	.40	80.0	.49	.45	-8.2
	<i>Percent</i>					
Net savings/equity:						
Corn-soybean	8.37	2.39	-71.4	7.88	4.00	-47.9
Wheat-sorghum	9.00	7.12	-20.9	11.88	5.03	-56.9
Wheat-barleyoats	9.56	7.47	-21.9	8.50	11.79	38.7
Wheat-barley	13.54	7.59	43.9	16.42	15.12	-7.9

Associated with increased indebtedness between 1983 and 1985 were increases in net value of **fixed** assets, **grain** storage capacity, and total expenses, particularly labor. In contrast to the associations that reduced debt, grain marketings were up and total sales were about the same in 1985. Farm supply sales by large cooperatives increased significantly, offsetting about half of their 1.8 million dollar drop in grain sales. The net effect of these key and other factors were declines of 56 and 49 percent in net savings. The debt equity ratio of 0.60 for the large associations indicates that many among them became financially troubled during this period and remained so beyond 1985.

FINANCIAL **STATEMENT** ANALYSIS

Financial analysis entails isolating various factors and constructing key relationships, usually ratios, for evaluating the cooperative's overall economic condition. Important factors to consider are an association's ability to (1) meet current obligations, (2) **earn** a competitive return on investment, (3) cope with external and internal financial problems, (4) raise needed capital, and (5) operate efficiently.

Ratios showing relationships between items in the financial and income statements of a business operation are constructed to aid in analyzing a cooperative's economic and **financial** situation. They are largely descriptive and can indicate problem areas, but cannot be used to solve problems. Ratios can serve as guidelines for planning purposes and can aid meaningfully **in** formulating actions. Caution must be exercised in their use because both items in a ratio are subject to considerable variation, and their interpretation is largely subjective in the absence of fixed standards or hard and fast rules.

At best, ratios are approximations, and their application is limited because of differences attributed to factors like type of cooperative, time of year closing, different accounting procedures, and use of financial resources. Several ratios have value for the cooperative associations in this study.

Calculation of the *current* ratio reveals short-run liquidity for all type/size groups of first-handlers in both years and improved liquidity in 1985 for most situations (table 20). Closer examination reveals that this ratio varied significantly by association type in both years. Favorable current ratio positions can be misleading in terms of the

overall financial health of a cooperative or group of cooperatives and, even though improved in 1985, should be viewed with caution in the absence of information pertaining to their ability to generate revenue to meet current debt obligations. For example, the current ratio of 1.37 for 1985 for the large corn-soybean associations looks respectable among the type/size groups, but is inconsistent with what their equity-based relationships indicate (table 20).

The liabilities to net worth (equity) ratio, which indicates the amount of money members owe creditors in relation to that invested by members, varied significantly among association types and between sales groups in both years. This ratio was lower in 1985 for most type/size groups, since the majority of associations took steps to reduce their liabilities. Even so, wheat-barley-oats and large corn-soybean cooperatives in 1985 owed creditors about as much as their members had invested. Comparable ratios for all other groups except one were 54 to 62 cents owed for every dollar owned.

The *debt to equity* ratios for 1985 and 1983 reveal that the corn-soybean associations generally and **wheat-barley-oats** associations consistently had the largest and smallest, respectively, amount of debt capital in relation to the amount of member investment dollars (table 20). Explanations for ratio changes between **the** 2 years varied from largely debt reduction for cooperatives in the **Corn Belt** to increased debt for larger cooperatives in the Northern Plains and medium-sized ones in the Pacific Northwest.

The debt to equity ratio can be used to reflect the universal importance of debt to a cooperative's solvency. Associations with high debt to equity ratios reported significantly lower net savings than those **with** low ratios. This was true for both years and all type/size groups (table 21). This also was the pattern for net savings as a percentage of member equity (return to equity) (table 22). Rates of return averaged nominal to negative for most type/size groups for associations with debt to equity ratios of at least 0.70-13 and 28 percent, respectively, of all medium-sized and large cooperatives in 1985.

Calculation of the *net savings to equity* ratio, the one used most often to measure return on member investment, shows returns on member investment in both years were highest for wheat-barley associations and lowest for **corn-soybean** cooperatives. Returns in 1985 for the **corn-soybean** and large wheat-sorghum first-handlers were

clearly lowest and below even nominal competitive rates of return to investment capital.

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Table 21-Not savings of first-handlers-of-grain associations by debt/equity ratio, by type of sales group, 1985 and 1983

Debt/equity ratio	Sales group (\$5.0-\$14.9 million)				
	Type of cooperative				
	All associations	Corn-soybean	wheat-sorghum	Wheat-barley-oats	Wheat-barley
	<i>Dollars</i>				
	1985				
0.0	174,301	165,385		185,614	—
.01-.39	127,640	78,689	267,256	111,723	286,533
.40-.69	54,348	-4,023	81,842	136,160	201,585
.70 plus	-74,948	-120,233	23,675	72,932	-15,985
	1983				
0.0	214,519	198,994		123,012	413,124
.01-.39	227,850	200,807	327,863	132,861	284,175
.40-.69	121,697	105,315	103,503	115,647	161,780
.70 plus	60,611	59,143	-11,757	111,676	—
	Sales group (\$15.0 million or more)				
	Type of cooperative				
	All associations	Corn-soybean	wheat-sorghum	Wheat-barley-oats	Wheat-barley
	<i>Dollars</i>				
	1985				
0.0	533,978	503,163	—	—	(¹)
.01-.39	398,057	280,099	492,098	(¹)	(¹)
.40-.69	314,998	221,226	239,846	(¹)	(¹)
.70 plus	-50,626	-83,670	-238,380	(¹)	(¹)
	1983				
0.0	633,694	633,694		—	—
.01-.39	614,595	468,610	1,000,025	409,999	1,030,060
.40-.69	015,838	406,479	538,888	174,538	702,154
.70 plus	99,045	41,267	349,999		359,811

¹Too few observations for meaningful data.

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Table 22—Return to member equity for first-handlers-of-grain associations by debt/equity ratio, by type and sales group, 1985 and 1983

Debt/equity ratio	Sales group (\$5.0-\$14.9 million)				
	Type of cooperative				
	All associations	Corn-soybean	Wheat-sorghum	Wheat-barley-oats	Wheat-barley
			<i>Dollars</i>		
			1986		
0.0	8.58	8.49	—	7.32	—
.01-.39	6.30	4.13	9.23	7.54	10.85
.40-.69	2.77	-1.11	3.91	8.11	8.81
.70 plus	-5.99	-11.07	1.34	8.59	-5.09
			1983		
0.0	14.50	18.05	—	11.00	17.21
.01-.39	11.47	10.52	12.49	10.28	14.04
.40-.69	8.71	8.40	4.71	8.50	8.58
.70 plus	4.23	4.43	-80	7.01	—
			Sales group (\$15 million or more)		
			Type of cooperative		
	All associations	Corn-soybean	Wheat-sorghum	Wheat-barley-oats	Wheat-barley
			<i>Dollars</i>		
			1985		
0.0	9.91	9.98	—		(¹)
.01-.39	8.27	8.88	8.89	(¹)	(¹)
.40-.69	8.59	4.44	5.45	(¹)	(¹)
.70 plus	-1.31	-2.77	-8.25		(¹)
			1983		
0.0	20.67	20.87	—	—	—
.01-.39	12.42	12.08	12.70	8.89	18.82
.40-.69	12.58	9.95	13.81	8.77	18.22
.70 plus	2.34	.96	8.08	—	11.08

¹Too few observations for meaningful data.

Appendix

Appendix table 1—Sources of income and operating expenses per association for all cooperatives, by sales group, 1985 and 1983

Item	Sales group (million dollars)					
	5.0-14.9			16.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Grain sales	6,773,973	6,247,819	-7.6	21,409,211	19,194,090	-10.3
Farm supply sales	1,926,171	2,049,639	6.4	6,166,453	6,768,511	9.8
Total sales	8,700,144	8,297,458	4.6	27,575,664	25,962,601	-5.8
Cost of sales	-8,173,579	-7,765,920	-5.0	-25,841,963	-24,244,552	-6.2
Margins on sales	526,565	531,538	.9	1,733,701	1,718,049	-.9
Other operating income	397,161	401,858	1.2	1,104,066	1,066,489	-3.4
Nonoperating income	-14,641	-36,922	(²)	-108,020	-110,079	3.8
Gross income	909,065	896,474	-1.4	2,731,747	2,674,459	-2.1
Labor expenses	308,947	341,513	10.5	917,943	1,009,371	10.0
Other expenses	432,171	467,110	8.1	1,374,597	1,388,714	1.0
Total expenses	741,118	808,823	9.1	2,292,540	2,398,085	4.8
Net savings ¹	167,967	87,851	47.7	439,207	278,374	-37.1
Gross income per Dollar expense	1.23	1.11	-9.8	1.19	1.12	-5.9
			<i>Percent</i>			
Proportion grain of total sales	77.9	75.3	-3.3	77.8	73.9	4.8
Proportion labor of total expenses	41.7	42.2	1.2	40.0	42.1	5.2
Margins/total sales	6.05	6.41	8.0	8.29	6.82	5.2

¹Savings before income taxes and allocations.
²More than doubled.

Appendix table 2—Selected grain operation data for all cooperatives, by sales group, 1985 and 1983

Item	Unit	Sales group (million dollars)					
		5.0-14.9			15.0 or more		
		1983	1985	1985/1983	1983	1985	1985/1983
				<i>Percent</i>			<i>Percent</i>
Storage capacity:							
Per association	Bushels	1,384,579	1,554,453	12.3	3,965,919	4,012,426	1.2
Per location	Bushels	830,087	909,749	9.8	947,178	931,342	-1.7
Locations	Number	1.67	1.71	2.4	4.19	4.31	2.9
Grain marketed, total	Bushels	1,988,036	1,912,865	-3.8	6,089,683	5,688,584	-8.6
Wheat	Bushels	520,367	497,851	4.3	1,175,442	1,316,517	12.0
Corn	Bushels	883,153	808,729	-6.3	3,138,586	2,743,656	-12.6
Soybeans	Bushels	332,581	297,258	-10.6	1,210,572	951,497	-21.4
Sorghum	Bushels	117,758	144,416	22.6	213,654	313,360	48.7
Barley	Bushels	69,630	88,571	27.2	175,107	234,659	34.0
Other ¹	Bushels	84,547	76,040	-10.1	176,322	128,895	-28.9
Turnover rate	Times	1.44	1.23	-14.8	1.54	1.42	-7.8
Price received*	Dollars	3.41	3.27	-4.1	3.52	3.37	4.3

¹Includes oats, sunflowers, rye, and flaxseed.

*Weighted average price per bushel of all grain marketed.

Appendix table 3—Condensed balance sheet data for all cooperatives, by sales group, 1985 and 1983

Item	Sales group (million dollars)					
	5.6-14.9			15.0 or more		
	1983	1985	1985/1983	1983	1985	1985/1983
	<i>-- Dollars --</i>		<i>Percent</i>	<i>-- Dollars --</i>		<i>Percent</i>
Current assets	1,386,557	1,289,407	-7.0	4,472,099	3,796,492	-15.1
Investments	610,798	631,464	3.4	1,676,632	1,653,442	-1.4
Fixed assets	1,116,958	1,140,031	2.1	3,289,953	3,049,938	-7.3
Other assets	20,441	22,030	7.8	45,538	92,154	(1)
Total assets	3,134,754	3,082,932	-1.7	9,484,222	8,592,026	-9.4
Current liabilities	941,415	831,877	-11.6	3,463,520	2,744,118	-20.8
Long-term liabilities	392,091	338,672	-14.1	1,392,279	1,309,937	-5.9
Equity	1,801,248	1,914,383	6.3	4,628,423	4,537,971	-2.0
Total liabilities and equity	3,134,754	3,082,932	-1.7	9,484,222	8,592,026	-9.4
Working capital ²	445,142	457,530	2.8	1,008,579	1,052,374	4.3
Total debt	724,179	577,684	-20.2	2,691,507	2,226,900	-17.3
Total sales/dollar assets	2.78	2.69	-3.2	2.91	3.02	3.8
			<i>Percent</i>			
Net savings/equity	9.33	4.59	-50.8	9.49	6.09	-35.8
			<i>Ratio</i>			
Current ratio	1.47	1.55	5.4	1.29	1.38	7.0
Liabilities/net worth (equity)	.74	.61	-17.6	1.05	.89	-15.2
Equity/total assets	.57	.62	8.8	.49	.53	8.2
Total debt/total assets	.23	.19	-17.4	.28	.26	-7.1
Total debt/equity	.40	.30	-25.0	.58	.49	-15.5

¹More than doubled.

²Current assets minus current liabilities.

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