

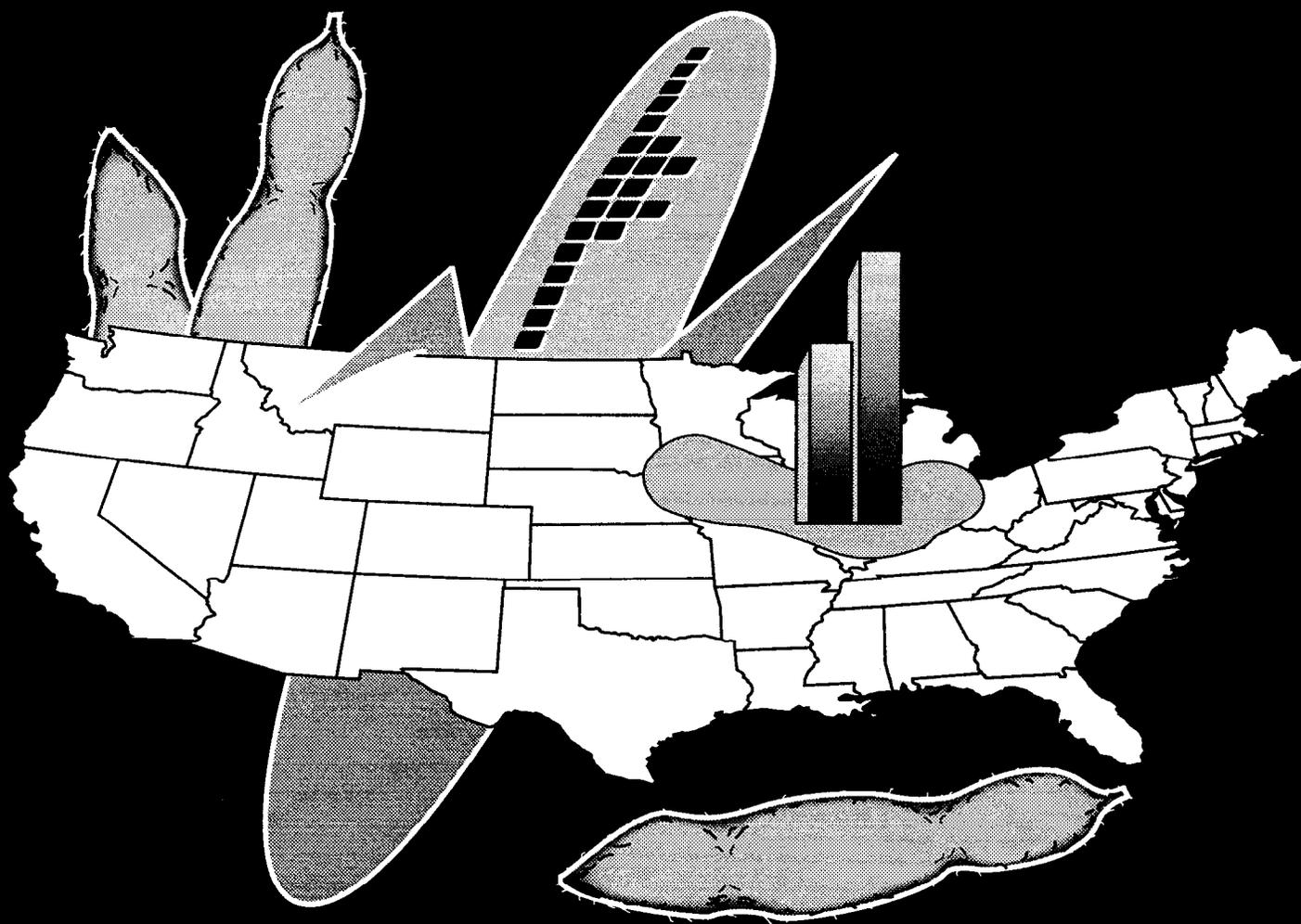


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Corn Belt Grain Cooperatives Adjust to Challenges of 1980s, Poised for 1990s



Abstract

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This report presents information for 1983 through 1991 on the physical and financial structure adjustments made by local first-handlers-of-grain cooperatives in the Corn Belt. They had annual total sales of at least \$5 million, more than half in grain. Most associations also handled farm supplies and all provided related services.

Local cooperative grain handlers were faced with abrupt changes in export markets for grains and oilseeds, shifts in Government policy, and occasional drought, accompanied by wide swings in grain prices. Most associations represented in this report adjusted successfully to changing economic conditions through sound financial management of particularly long-term debt and operating capital. Most even improved their economic position, with substantial assistance in the latter half of the period from their regional cooperatives.

Keywords: cooperative, grain, adjustment, expenses, debt, patronage

Preface

This report is based on balance sheet and operating statement data from cooperatives' annual reports requested by USDA's Agricultural Cooperative Service (ACS) as part of an annual survey of grain marketing cooperatives. By ACS definition, grain cooperatives are those whose sales of grains and oilseeds account for more than half of total sales. Other types of information such as volume of grain handled and storage capacity were obtained directly from first-handler cooperatives.

Report information is for two sizes of local first-handler associations located in the Corn Belt. Large cooperatives had \$15 million or more in total sales. Medium-sized ones ranged from \$5 million to \$14.9 million. Collectively, both groups accounted for an estimated 90 to 95 percent of fiscal 1991 total grains and oilseeds sales by local grain cooperatives.

All these cooperatives specialized in handling corn and soybeans. Most also handled wheat and/or oats. Most cooperatives were diversified, also handling farm supplies. All provided related services.

Information for this report is based on condensed balance sheets and operating statements. Adjustments were made in financial reports to ensure data comparability because of variations in accounting, auditing practices, and terminology. Some detail was lost in the process.

Information in this report can help cooperative managers and boards make sound business decisions as they adjust to variations of old problems and consider the need for increased capital for improved or new facilities and/or services. Information can be used to compare your cooperative with others of similar size.

Glossary of Terms

Current assets-Value of assets readily converted into cash without interfering with normal business operations.

Investments-Dollar value of investments in other businesses, mainly 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-Dollar value of liabilities, including that portion of long-term debt due in a year or less and patronage refunds payable.

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

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

Net worth or equity capital-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.

Unallocated reserves-Equity capital generally, but not exclusively, viewed as available for investment in facility expansion or growth. Comparable terminology includes capital and general reserve; unallocated patronage; retained savings, earnings, margins, and income; and surplus.

Gross margins-Dollar value of sales of grains and oilseeds and farm supplies less cost of goods sold.

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

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

Gross income-Dollar value of gross margins plus other operating and nonoperating income.

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

Labor expense--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)--Dollar value of gross income minus total expenses before income taxes.

Allocation of net savings-Dollar value (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 Federal and State income taxes.

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Highlights and Conclusions

This report presents information for 1983 through 1991, except for 1984, on the physical and financial structure of local first-handlers-of-grain cooperatives in the Corn Belt with total sales of at least \$5 million. Annual survey data and cooperatives' annual records for their operations revealed:

- Net savings per association for both large and mid-sized cooperatives bottomed out in 1985, rose sharply during the next 2 years, and averaged slightly lower through 1991.
- Early-period declines in net savings were largely related to the sharp dropoff in grain exports after expansion in the late 1970s; mid-period rises resulted from the Government storage program; and latter-period leveling off was due to regional cooperative influence.
- Although almost nonexistent in the early 1980s, patronage refunds received from largely regional cooperatives were substantial dollar-wise and contributed 40 to 50 percent to total net savings during 1989-91.
- The incidence of losses reported by medium-sized and large cooperatives was highest in 1985, at about one-fourth. The rate dropped sharply the next 2 years when cooperatives benefited from the Government storage program. Net savings for those cooperatives that reported a savings averaged highest during this period, despite sharply falling grain prices.
- Farm supply sales were the stabilizing factor for many cooperatives throughout the period, particularly for the large ones, whose grain sales varied considerably.
- Grain accounted for at least 70 percent of total sales, almost entirely corn and soybean marketings.
- Total and grain margins as a proportion of total sales averaged higher for the large first-handlers, peaking during the period of heaviest Federal Government grain storage program activity. Grain margins were generally low.
- Large associations extensively reduced long-term debt. Cooperatives in both size groups had cut their debt to manageable levels by the late 1980s.
- Member equity for medium-sized cooperatives was about \$2 million throughout the period, but increased gradually for the large ones. Member equity as a proportion of total assets declined for both groups.
- Net savings allocations shifted from unallocated reserves to patronage during the period. Level of savings improved due to long-term debt reduction and better control of expenses.
- Despite closer management of operations in the 1980s, labor costs increased in dollar terms and as a proportion of total expenses.
- Early-period grain storage capacity expansion was more prevalent among medium-sized cooperatives. Large ones tended to scale back operations. Those that did expand tended to be undersized. Latter-period expansion was mostly among large cooperatives.

Substantial change occurred during the 1980s. First-handlers in the Corn Belt adjusted to abrupt changes in export markets for grains and oilseeds, Government policy shifts, and drought conditions, all accompanied by wide swings in grain prices. The key to cooperatives' adjusting to such conditions is sound financial management, particularly of debt and operating capital.

Considerable effort is still needed to manage debt and operating capital and grain merchandising. Financial management is probably the most important, complex, and yet rewarding managerial activity in operating grain-handling cooperatives. Grain merchandising probably is a close second. The experiences of the 1980s should contribute significantly as grain-handling cooperatives meet the challenges of the 1990s and beyond.

Corn Belt Grain Cooperatives Adjust to Challenges of 1980s, Poised for 1990s

David E. Cummins, Agricultural Economist

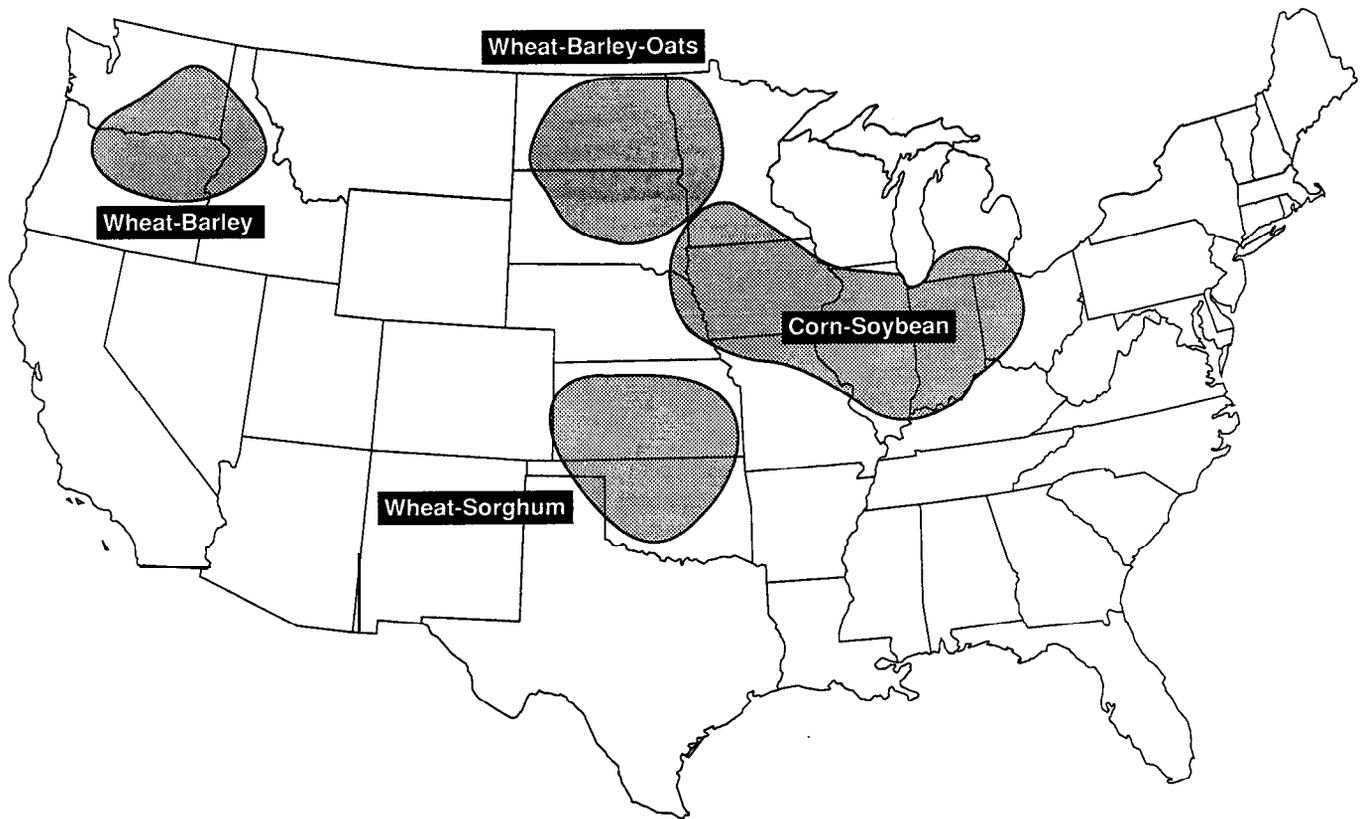
First-Handler Characteristics

This study analyzes changes in the financial structure and related operating characteristics of Midwest local cooperatives that are first-handlers of grain (also referred to as first-handlers, grain cooperatives, or associations). They had annual sales of at least \$5 million, more than half from grain. Most cooperatives were diversified, handling both farm supplies and grain. All provided related services.

These Corn Belt cooperatives, concentrated in Iowa, Illinois, and Indiana, specialized in handling corn and soybeans and in most cases limited volumes of small grains such as wheat and/or oats (fig. 1).

Figure 1

Location of Selected Types of First-handler Grain Cooperatives



Net Savings

Net savings per association for both medium-sized and large grain cooperatives declined in the early 1980s, bottomed out in 1985, rose sharply in each of the next 2 years, and averaged slightly lower through 1991 (fig. 2). Declines largely resulted from a sharp dropoff in grain exports and falling prices. This was followed by a recovery period featuring a Government storage program and generally rising prices. The subsequent leveling off of savings was influenced heavily by regional cooperatives.

Local net savings reveals an interesting pattern for the period. Until 1989, the influence on total net savings of other sources of income had a "worse off" effect on the local grain handlers. The opposite was true in successive years (fig. 3). The relative contribution of the sources of nonoperating income, referred to as adjustments to local net savings, varied considerably during the period (fig. 4). A discussion of these appears later.

Allocations of total net savings revealed two distinct trends. Net savings allocated as patronage generally increased during the period, while unallocated reserves declined (fig. 5 and table 1). The proportion of patronage retained, particularly by the large cooperatives, was noticeably higher during the latter years of the period compared with earlier years (fig. 6). In other words, local grain-handling cooperatives in the Corn Belt paid out considerably more earnings as patronage during the latter years, but also retained an increasing proportion as unallocated reserves for investment in the business. This was particularly true for the large locals.

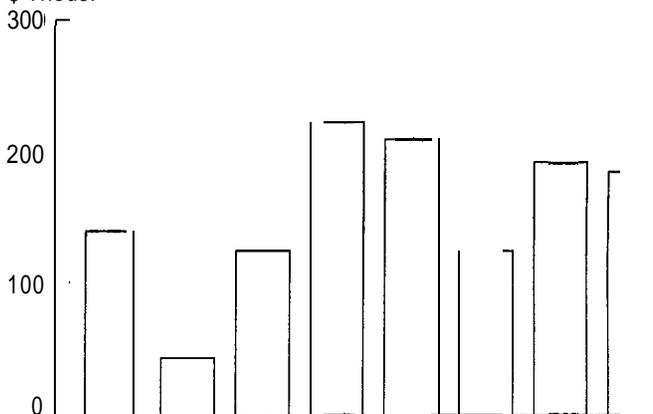
While net savings bottomed out in 1985, the incidence of losses reported by both size groups of grain cooperatives was highest. The rate dropped sharply the next 2 years because of high income from the Government storage program. Net savings for those cooperatives that reported a savings averaged highest during this period, despite sharply falling prices from grain and soybean marketings (figs. 7 and 8).

Figure 2

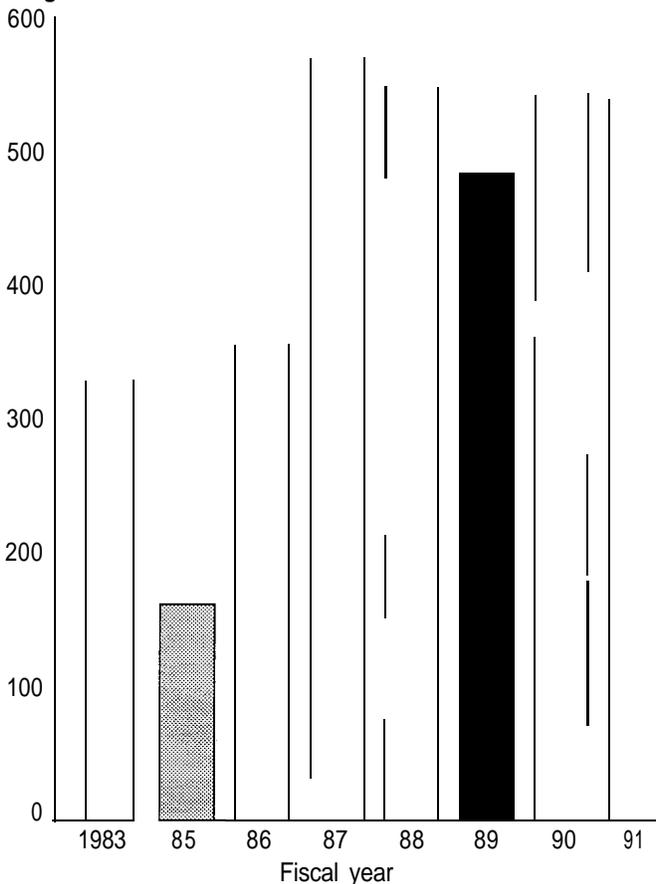
Net Savings Realized by Corn Corn-Soybean First-Handler Co-ops

Medium

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Large



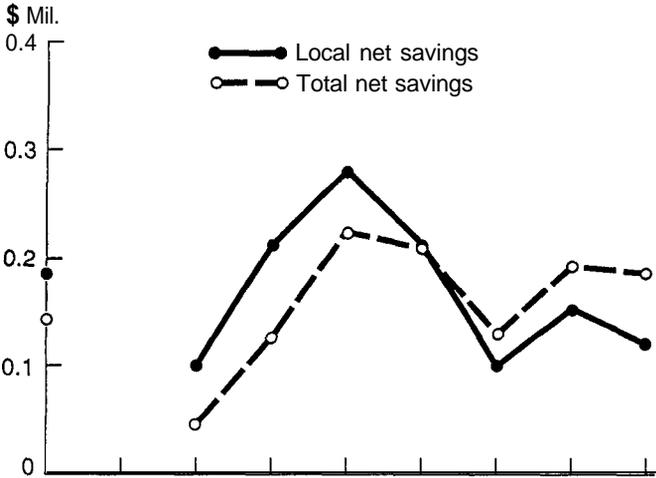
Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

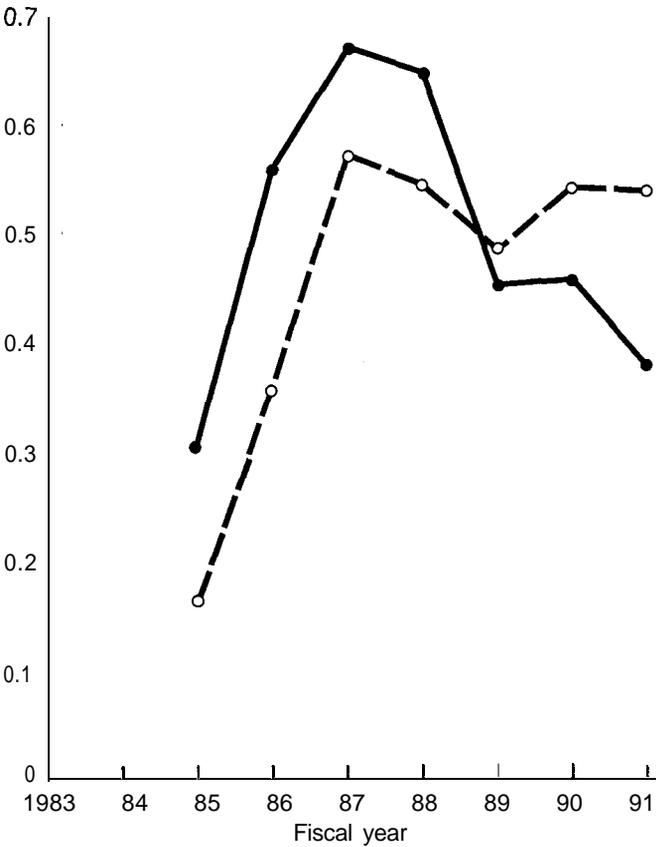
Figure 3

Local and Total Net Savings
Corn-Soybean First-Handler Co-ops

Medium



Large



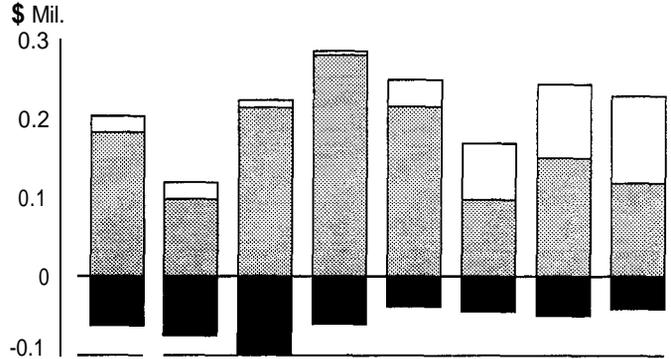
Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

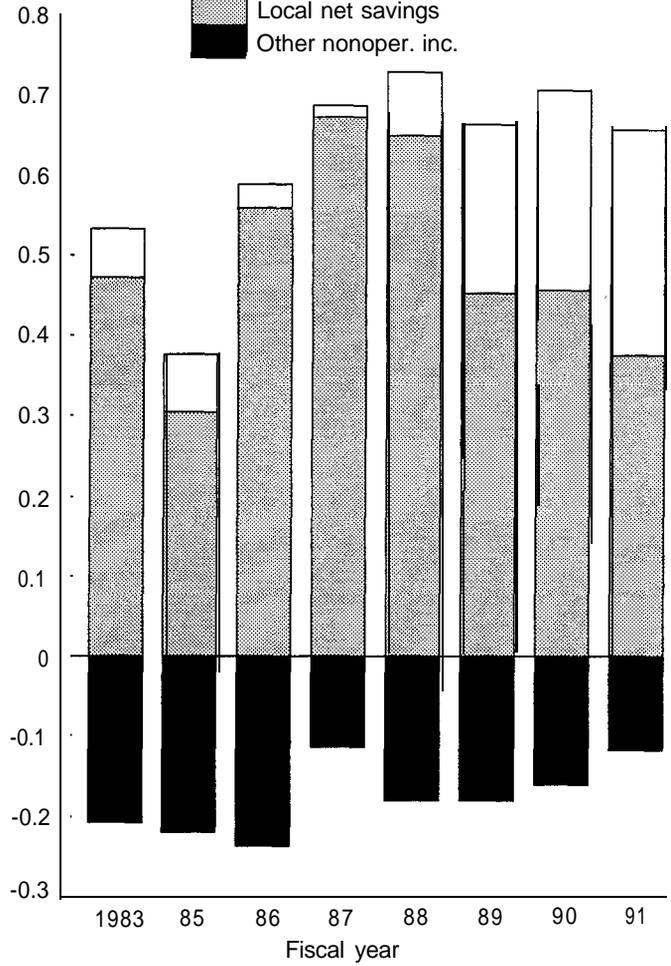
Figure 4

Local Net Savings and Adjustments
Corn-Soybean First-Handler Co-ops

Medium



Large



Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales

Figure 5

Allocation of Net Savings
Corn-Soybean First-Handler Co-ops

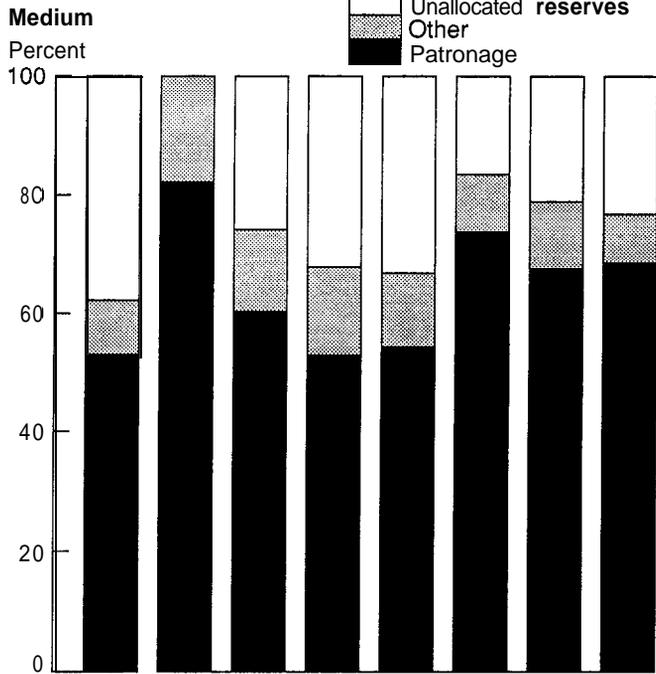
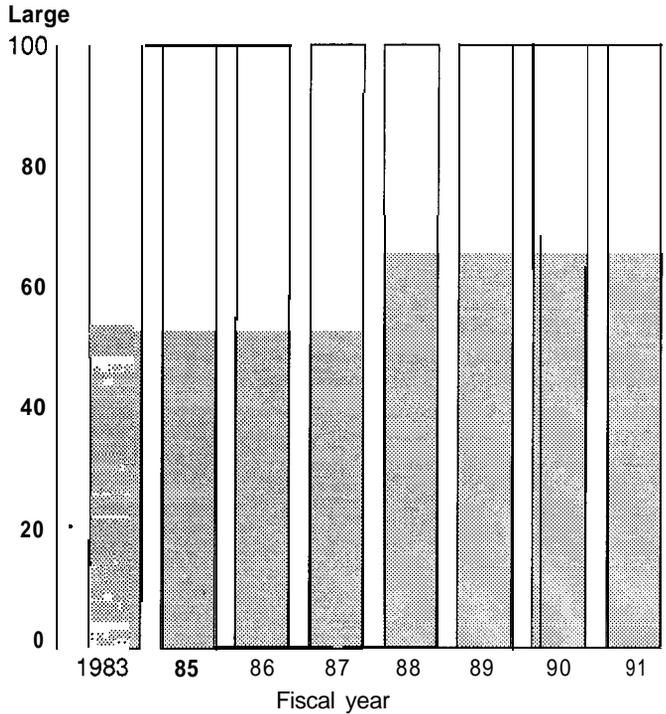
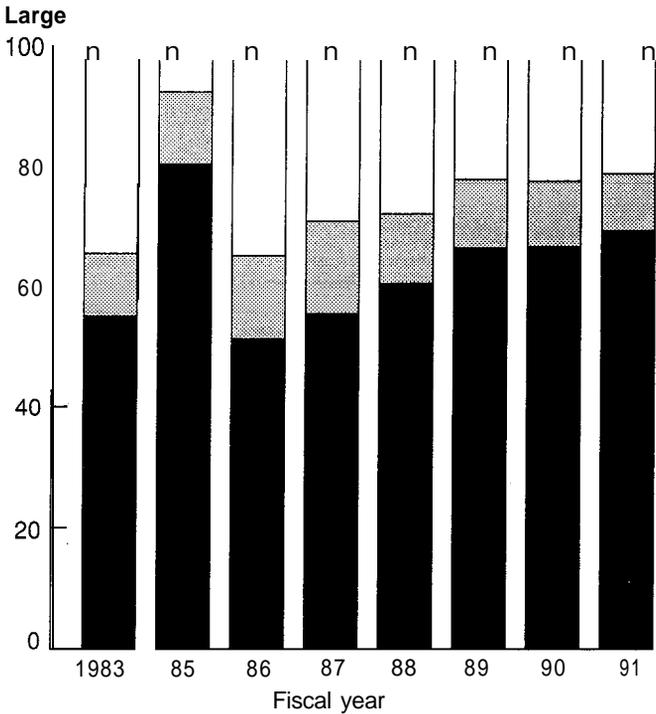
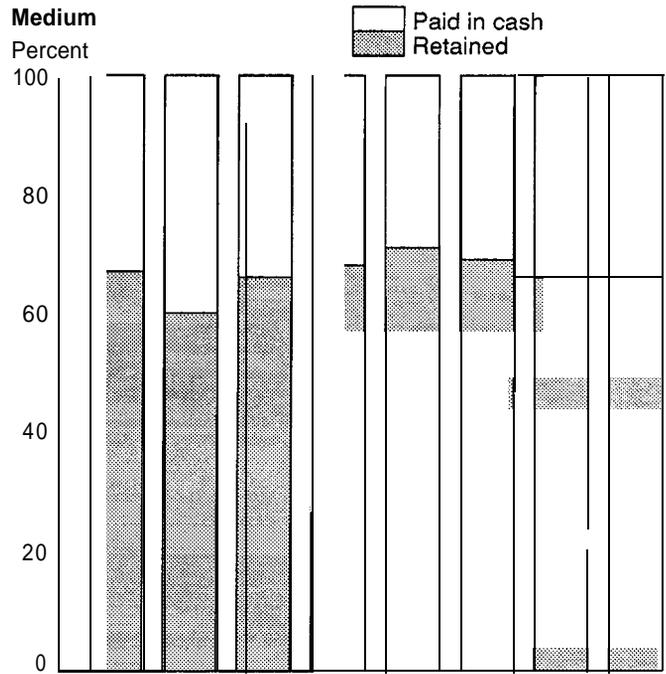


Figure 6

Allocation of Patronage Earned
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Table I-Allocation of net savings (loss) of corn-soybean first-handlers-of-grain cooperatives, by total sales group, 1983-91¹

Item	Unit	1983	1985	1986	1987	1988	1989	1990	1991
<i>\$5- 14.9 million</i>									
NET SAVINGS ¹	Dollars	139,491	43,195	124,232	223,227	210,305	124,305	193,183	186,021
Patronage, total	Percent	53.1	82.2	60.3	53.0	54.4	73.8	67.5	68.5
Paid in cash	Percent	33	40	34	32	29	31	34	34
Retained	Percent	67	60	66	68	71	69	66	66
Other ²	Percent	9.1	17.8	13.9	14.8	12.4	9.7	11.4	8.3
Unallocated reserves	Percent	37.8	—	25.8	32.2	33.2	16.5	21.1	23.2
<i>\$15 million or more</i>									
NET SAVINGS ¹	Dollars	327,740	160,145	354,629	573,001	548,261	483,421	542,473	538,916
Patronage, total	Percent	55.2	80.6	51.4	55.6	60.7	66.6	66.8	69.4
Paid in cash	Percent	45	44	36	33	30	30	31	32
Retained	Percent	55	56	64	67	70	70	69	68
Other ²	Percent	10.5	11.9	13.9	15.4	11.5	11.5	11.0	9.6
Unallocated reserves	Percent	34.3	7.5	34.7	29.0	27.8	21.9	22.2	21.0

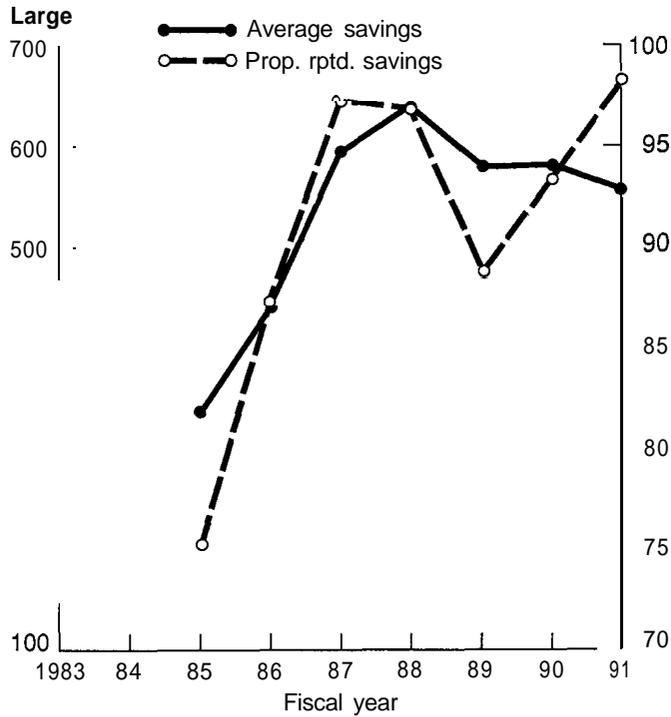
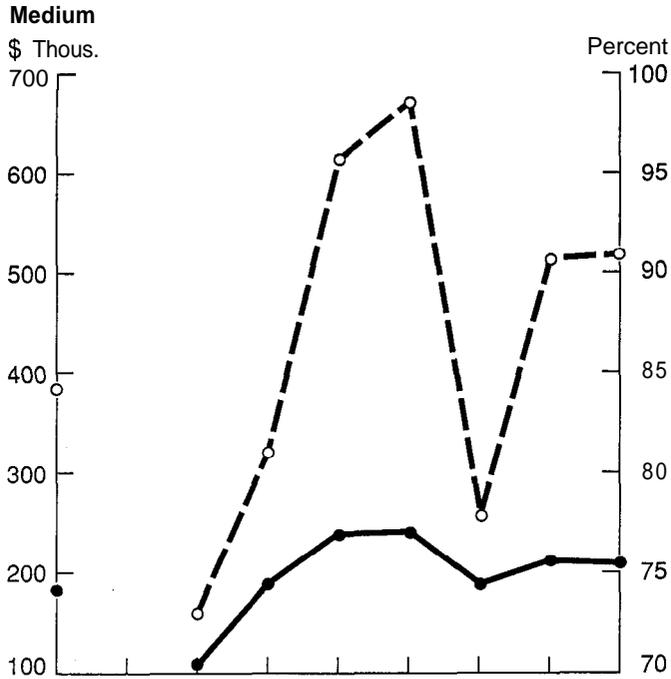
¹1984 data not available.

¹Savings before income taxes and allocations.

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

Figure 7

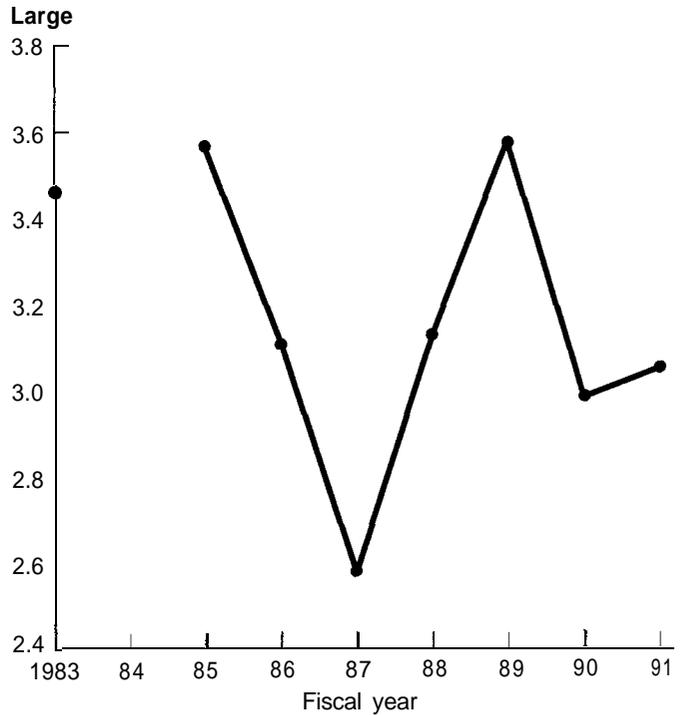
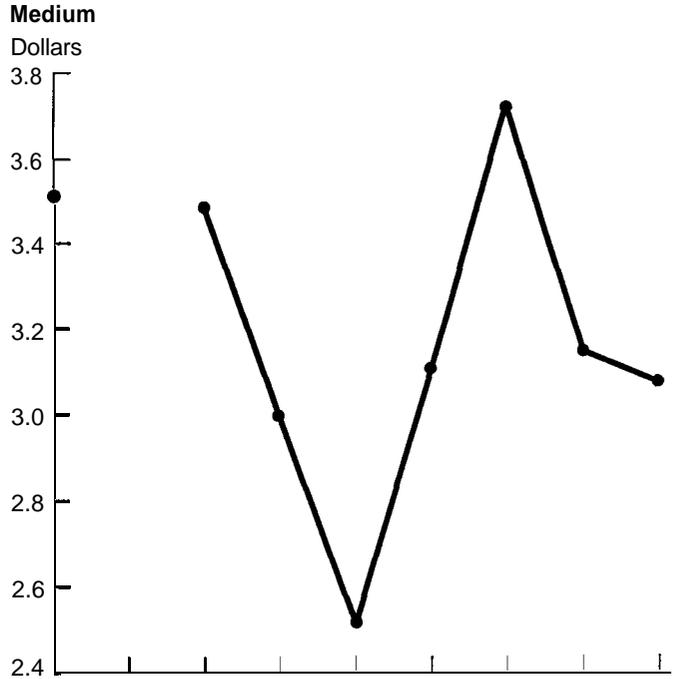
Co-ops Had Savings and Average Savings
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 8

Prices Received per Bushel Grains Sold
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales

Income and Expenses

Key factors underlying the 1983-91 changes in net savings were grain prices and sales volumes, regional cooperative relationships, and Government program impacts on the income side and labor expenses on the cost side. Income-related factors varied considerably more than cost-related factors.

Gross income movement for corn-soybean cooperatives was most active in the mid-eighties, rising nearly 41 percent from 1985 to 1987 for the medium-sized ones and nearly 23 percent for the large ones (table 2 and fig. 9). Gross incomes and total operating costs averaged lower following their 1987 peaks.

Table 2-Selected physical facility and income statement data for corn-soybean first-handlers-of-grain cooperatives, by size, 1983-91*

Item	Unit	Total sales group (million dollars)							
		1983	1985	1986	\$5-14.9 1987	1988	1989	1990	1991
Size characteristics:									
Locations	Number	1.43	1.50	— ¹	—	—	1.53	1.57	1.57
Storage capacity	Bushels	1,191,437	1,420,747	—	—	—	1,452,898	1,515,920	1,423,895
Grain sold	Bushels	2,030,491	1,756,411	2,105,917	2,445,149	2,033,421	1,950,983	2,325,883	2,255,201
Turnover rate	Times	1.7	1.24	—	—	—	1.34	1.53	1.58
Unit-trains	Percent	—	—	—	—	—	22.50	27.27	27.91
Employees*	Number	—	12.50	—	—	—	12.08	11.98	11.44
Income statement items:									
Grain sales	Dollars	7,137,771	6,131,311	6,302,199	6,147,562	6,349,606	7,265,098	7,315,867	6,929,882
Farm supply sales	Dollars	1,971,930	2,011,052	2,087,940	2,105,023	1,970,309	2,021,545	1,894,822	2,050,665
Total	Dollars	9,109,701	8,142,363	8,390,139	8,252,585	8,319,915	9,286,643	9,210,689	8,980,547
Cost of sales	Dollars	8,583,833	7,636,241	7,860,487	7,689,898	7,773,475	8,740,697	8,663,690	8,452,001
Margins on sales	Dollars	525,868	506,122	529,652	562,687	546,440	545,946	546,999	528,546
Other oper. income	Dollars	373,597	364,654	590,672	640,620	413,414	301,312	353,125	347,548
Nonoperating income	Dollars	-42,356	-54,793	-88,541	-55,897	-4,514	26,250	43,342	68,078
Gross income	Dollars	857,109	815,983	1,031,783	1,147,410	955,340	873,508	943,466	944,172
Labor expenses	Dollars	295,728	321,851	369,475	377,290	322,977	330,751	330,131	333,994
Other expenses	Dollars	421,890	450,937	538,076	546,893	422,058	418,452	420,152	424,157
Total	Dollars	717,618	772,788	907,551	924,183	745,035	749,203	750,283	758,151
NET SAVINGS³	Dollars	139,491	43,195	124,232	223,227	210,305	124,305	193,183	186,021
Relationships:									
Gross income/\$ expense	Dollars	1.19	1.06	1.14	1.24	1.28	1.17	1.26	1.25
Total sales/\$ assets	Dollars	3.08	2.91	2.68	2.65	2.62	3.25	2.91	2.91
Total sales/\$ labor exp.	Dollars	30.80	25.30	22.71	21.87	25.76	28.08	27.90	26.89
Total sales/employee	Dollars		651,389				768,762	753,529	793,901
Margins of total sales	Percent	5.77	6.22	6.31	6.82	6.57	5.88	5.94	5.89
Net savings of equity	Percent	8.37	2.39	6.2	11.23	11.89	6.86	10.08	10.03
Grain of total sales	Percent	78.4	75.3	75.1	74.5	76.3	78.2	79.4	77.2
Labor of total expenses	Percent	41.2	41.6	40.7	40.8	43.4	44.2	44	44.1

Continued

Table 2-Selected physical facility and income statement data for corn-soybean first-handlers-of-grain cooperatives, by size, 1983-91* (continued)

Item	Unit	Total sales group (million dollars)							
		1983	1985	1986	\$15 or more 1987	1988	1989	1990	1991
Size characteristics:									
Locations	Number	3.39	3.51	- 1	—	—	3.37	3.51	3.64
Storage capacity	Bushels	3555,391	3,618,023	—	—	—	4,084,654	4,107,043	4,240,562
Grain sold	Bushels	5828,276	5,238,655	5,691,583	6,111,116	6,139,832	6,417,114	7,214,451	7,011,965
Turnover rate	Times	1.64	1.45	—	—	—	1.57	1.78	1.65
Unit-trains	Percent	—	—	—	—	—	66.09	78.65	75.89
Employees ²	Number	—	38.31	—	—	—	35.95	37.4	37.79
Income statement items:									
Grain sales	Dollars	20,419,681	18,693,506	17,714,308	15,763,693	19,279,072	22,939,341	21,517,726	21,396,922
Farm supply sales	Dollars	6,268,554	6,644,227	7,079,790	6,816,576	6,998,661	7,100,736	7,030,823	7,454,236
Total	Dollars	26,688,235	25,337,733	24,794,098	22,580,269	26,277,733	30,040,077	28,548,549	28,851,158
Cost of sales	Dollars	25,009,273	23,601,728	23,029,472	20,940,884	24,414,136	28,165,978	26,744,678	26,962,509
Margins on sales	Dollars	1,678,962	1,736,005	1,764,626	1,639,385	1,863,597	1,874,099	1,803,871	1,888,649
Other oper. income	Dollars	1,033,605	931,930	1,464,165	1,556,384	1,145,869	881,439	941,655	1,039,857
Nonoperating income	Dollars	-145,306	-144,455	-205,579	-99,098	-100,595	31,101	86,960	163,390
Gross income	Dollars	2,567,261	2,523,480	3,023,212	3,096,671	2,908,871	2,786,639	2,832,486	3,091,896
Labor expenses	Dollars	879,004	978,830	1,146,989	1,083,551	1,001,960	995,742	1,013,153	1,130,454
Other expenses	Dollars	1,360,517	1,384,505	1,521,594	1,440,119	1,358,650	1,307,476	1,276,860	1,422,527
Total	Dollars	2,239,521	2,363,335	2,668,583	2,523,670	2,360,610	2,303,218	2,290,013	2,552,981
NET SAVINGS ³	Dollars	327,740	160,145	354,629	573,001	548,261	483,421	542,473	538,915
Relationships:									
Gross income/\$ expense	Dollars	1.15	1.07	1.13	1.23	1.23	1.21	1.24	1.21
Total sales/\$ assets	Dollars	3.04	3.2	3.07	2.81	2.69	3.47	3.17	2.87
Total sales/\$ labor exp.	Dollars	30.36	25.89	21.62	20.84	26.23	30.17	28.18	25.52
Total sales/employee	Dollars		661,387				835,607	777,135	770,766
Margins of total sales	Percent	6.29	6.85	7.12	7.26	7.09	6.24	6.32	6.55
Net savings of equity	Percent	7.68	4	7.96	12.58	12.78	10.61	11.62	10.94
Grain of total sales	Percent	76.5	73.8	71.4	69.8	73.4	76.4	75.4	74.2
Labor of total expenses	Percent	39.2	41.4	43	42.9	42.4	43.2	44.2	44.3

²1984 data not available.

¹Cells with — means data not available.

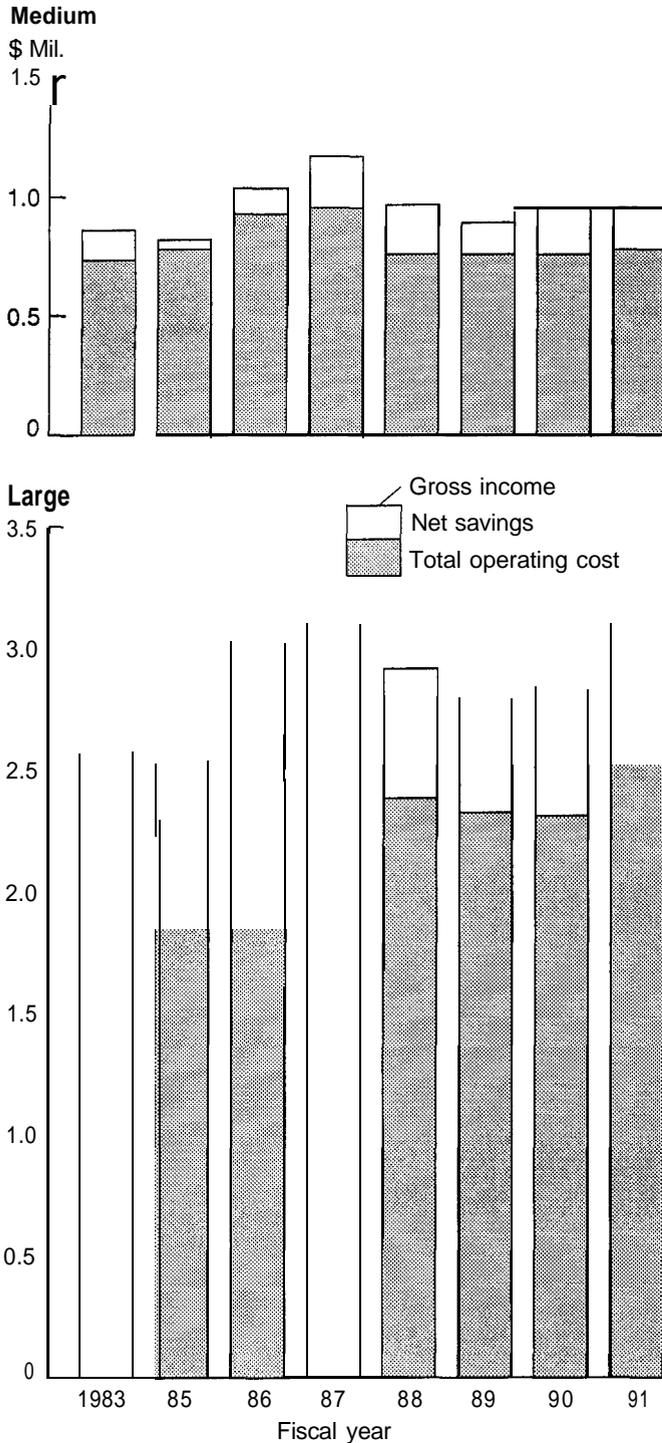
*Full-time equivalent.

³Savings before income taxes and allocations.

Figure 9

Operating Cost of Gross Income

Corn-Soybean First-Handler Co-ops



When viewing the relationship of gross income to total expenses as an efficiency measure, medium-sized grain cooperatives in the Corn Belt tended to be more efficient than the large ones (fig. 10). Operating efficiency improved more rapidly and rose to a higher level for the medium-sized ones during 1983-91. This suggests there is no widespread pressure on local Corn Belt grain cooperatives to increase scale of operations.

Sales and Margins

Total sales per association largely mirrored grain sales movements for both size groups. Farm supply sales provided stability over time (fig. 11 and table 2). The coefficient of variation (CV)¹ for farm supplies sales was 3.2 percent and 4.8 percent for the medium-sized and large grain cooperatives, respectively. The variation in grain sales was much greater during the period, with comparable CVs of 7.2 percent and 11 percent.

Year-to-year variation in total gross margins was relatively small and similar to farm supply sales (fig. 12). Annual average grain gross margins CVs were 11.8 percent and 16.3 percent for the medium-sized and large associations, respectively. Comparable total gross margins CVs were 5.6 percent and 6.5 percent.

Cooperatives often may be operated with "target" total gross margins in mind when dealing with unpredictable annual variations in grain market prices and volumes. If so, most of the margins adjusting and stability would be associated with farm supplies. Thin grain merchandising margins that typified 1983-91 placed considerable pressure on the grain marketing activity for volumes sufficient to offset the low per-unit margins. This was difficult to accomplish during this period of declining exports.

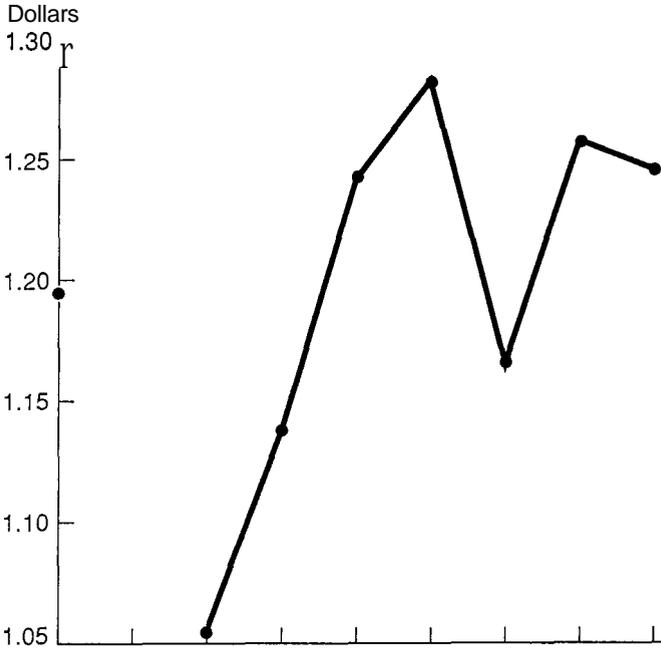
Margins as a percentage of total sales were consistently higher for large than for medium-sized associations. This reflects the large cooperatives' consistently higher proportion of farm supply sales (table 2).

¹ The coefficient of variation expresses the standard deviation of a set of data as a percentage of its mean or average. This statistic is used in determining the relative variation of two or more sets of data.

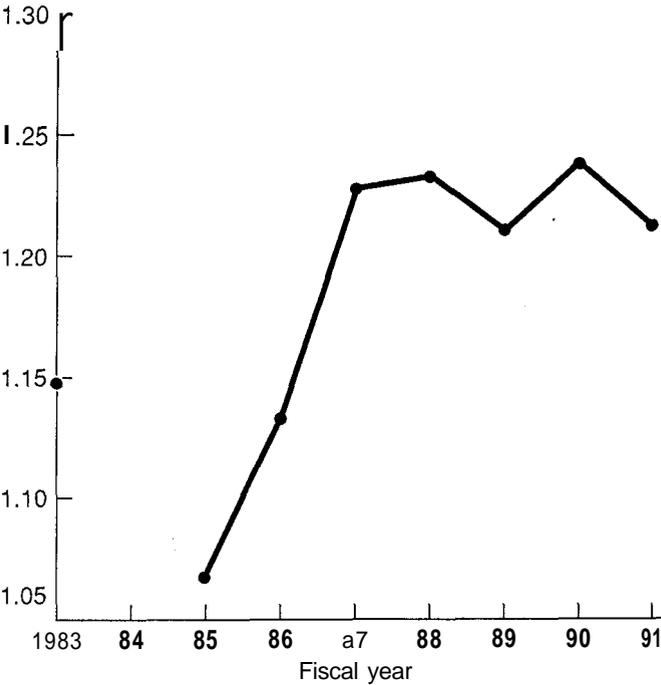
Figure 10

Gross Income Per Dollar of Operating Cost
Corn-Soybean First-Handler Co-ops

Medium



Large



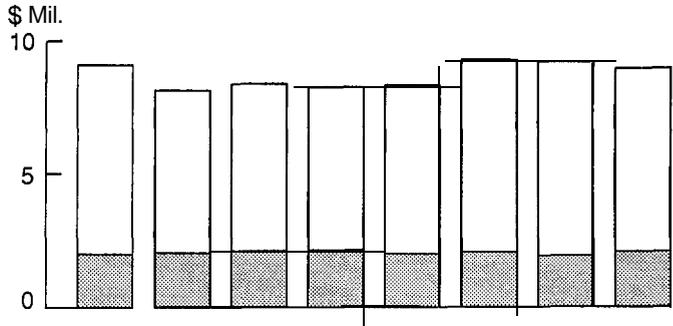
Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

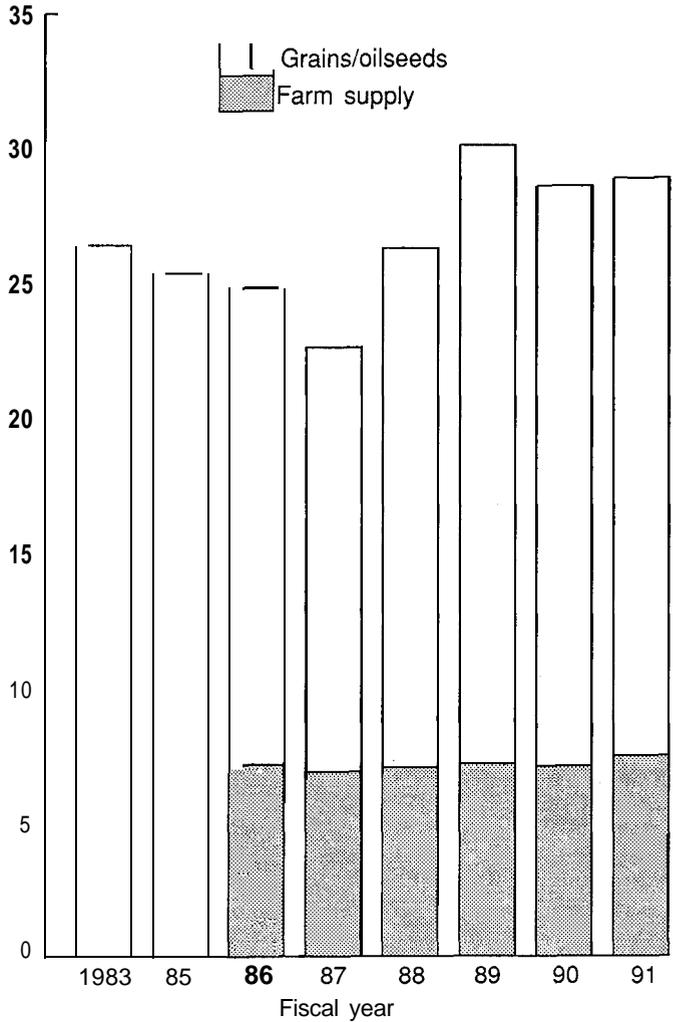
Figure 11

Grains and Farm Supply Sales
Corn-Soybean First-Handler Co-ops

Medium



Large



Fiscal year 1984 not available

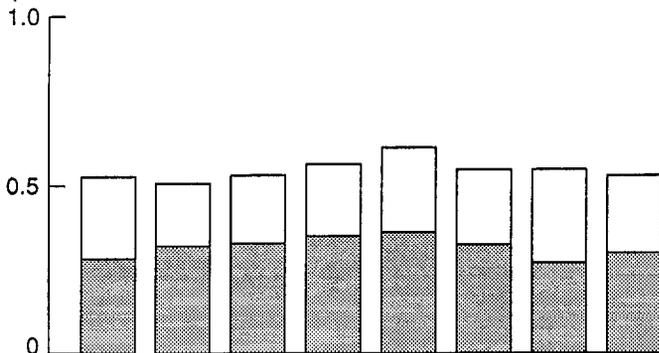
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales

Figure 12

Grain and Farm Supply Margins
Corn-Soybean First-Handler Co-ops

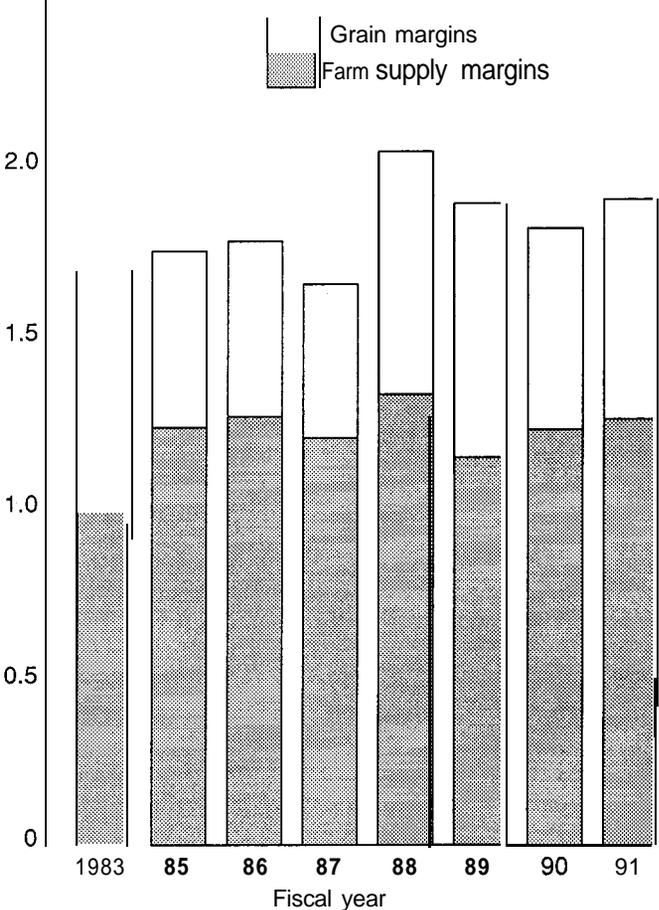
Medium

\$ Mil.



Large

\$ Mil.



Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Grain Marketings and Prices Received

Grain marketings by medium-sized cooperatives varied narrowly and averaged about 2.1 million bushels per year during the study period (table 3). Marketings by large cooperatives, however, clearly climbed and averaged about 17 percent larger during 1988-91 than during 1983-87 (fig. 13). Corn and soybean marketings accounted for a steady 94 percent of the total for both size groups, but the mix changed with a shift from soybeans to corn.

Seasonal average prices received for corn and soybean marketings peaked in 1983, bottomed out in 1986, and rose to a lower peak in 1988 (fig. 14 and appendix A). Most of the variation in corn prices was related to Government program effects on production (and on ending stocks and Commodity Credit Corporation (CCC) grain storage operations) and exports (CCC-stored grain drawdowns to satisfy other Government program needs). Soybean prices varied largely in response to export demand factors.

Other Income Sources

Operating income from sources other than margins on sales was largely from the grain storage function and related services (e.g., drying, cleaning, and treating). This income normally contributed 40 percent and 35 percent, respectively, of total operating income for medium-sized and large cooperatives (fig. 15). Corn Belt grain cooperatives prospered under the Federal Government's grain storage program in 1986 and 1987 (fig. 16 and table 2). Medium-sized cooperatives benefitted proportionally more than their large counterparts. The program's short-term effect was dramatic. Storage-related income averaged about 67 percent more than in 1983 and 54 percent more than in 1985. Subsequent storage incomes for both size groups averaged about the same as during the pre-1986 period.

Nonoperating income—largely the combined effect of small patronage refunds received from other cooperatives and a net interest adjustment—was a negative component in the earlier years and positive in the latter years (fig. 17 and table 2). In earlier years, cooperatives were burdened with paying off substantial debt with its associated interest cost, plus having to absorb partial or full writeoffs of the value of investments in their respective regional cooperatives. This situation turned around during the latter years. Considerable debt was repaid and substantial contributions were made by regionals in the form of patronage refunds.

Table 3-Types of grains marketed by corn-soybean first-handlers-of-grain cooperatives, by total sales group, 1983-91*

Item	Unit	1983	1985	1988	1987	1988	1989	1990	1991
<i>\$5- 14.9 million</i>									
Grain marketed, total	Bushels	2,030,491	1,756,411	2,105,917	2,445,149	2,033,421	1,950,983	2,325,883	2,255,201
Wheat	Bushels	59,010	57,343	81,388	64,468	38,129	55,500	56,913	65,778
Corn	Bushels	1,392,294	1,218,388	1,393,685	1,643,891	1,418,421	1,448,065	1,722,385	1,613,523
Soybeans	Bushels	532,319	442,342	555,451	679,464	541,461	415,155	497,574	525,361
Sorghum	Bushels	9,512	7,196	9,606	1,308	2,072	5,798	11,316	7,402
Barley	Bushels	296	93	26,211	2,986	830	549	1,443	5,282
Other ¹	Bushels	37,060	31,049	39,576	53,032	32,508	25,916	36,252	37,855
<i>\$15 million or more</i>									
Grain marketed, total	Bushels	5,828,276	5,238,655	5,691,583	6,111,116	6,139,832	6,417,114	7,214,451	7,011,965
Wheat	Bushels	179,420	165,976	219,975	134,692	337,077	192,795	127,096	224,192
Corn	Bushels	4,145,753	3,635,236	3,731,211	4,180,574	4,334,721	4,870,645	5,563,184	5,095,497
Soybeans	Bushels	1,429,269	1,310,269	1,631,310	1,498,776	1,292,435	1,230,977	1,340,726	1,474,390
Sorghum	Bushels	18,194	82,518	48,909	245,314	145,514	91,965	140,272	171,588
Barley	Bushels	3,299	67	389	0	0	65	165	659
Other ¹	Bushels	52,341	44,589	59,789	51,760	30,085	30,667	43,008	45,639

● 1984 data not available.

¹Includes oats, sunflowers, rye, and flaxseed.

Patronage Refunds-Most patronage refunds received since 1988 came from regional cooperatives. They were an important and even "saving" source of income for local grain cooperatives (fig. 18).

Patronage from other cooperatives went from meager dividends in the early 1980s to almost nonexistent in the mid-1980s. Several regional cooperatives had substantial losses in the form of investment writedowns and writeoffs. In turn, many locals were forced to take similar measures.

The grain industry began an upswing in the latter 1980s. Patronage refunds became an increasing proportion of the locals' profits (figs. 19 and 20). This income source continues to be sizeable, largely because of regional cooperative activity in value-added products. Regionals, largely through joint ventures, mergers, and acquisitions involving other cooperatives and investor-owned firms (IOFs), have been shifting resources to the production of larger-margin, value-added commodities.

This situation is likely to typify the 1990s. The regionals continue to position themselves to be competitive in

the production of value-added products. While these margins may weaken somewhat as competition intensifies, they will continue to far exceed grain merchandising margins in the foreseeable future and generate significant patronage dividends for member locals.

Operating Expenses

Total operating expenses (TOE) were reasonably stable during the period for both sizes of grain-handling cooperatives, with the exception of 1986-87 (fig. 9 and table 2). Operating expenses averaged significantly higher in 1986-87 than during the pre- and post-periods, corresponding to the substantially greater grain storage activity in 1986-87.

Role of Labor-Labor cost (including benefits), except for 1986-87, gradually increased for both sizes of cooperative, despite efforts to curb rising labor costs, particularly the benefits portion. Labor cost as a proportion of total expenses rose for both size groups during the period (fig. 21).

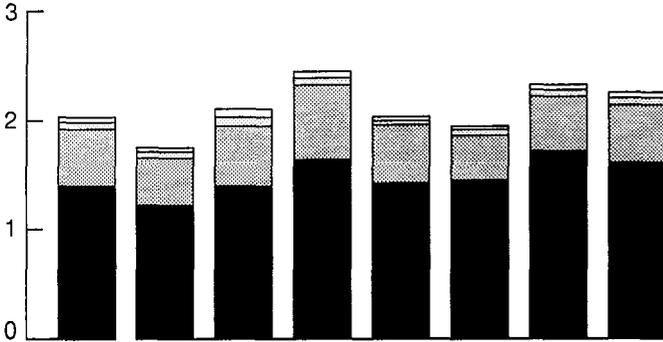
One measure of labor efficiency, total sales per dollar of labor expenses, describes the same distinct pattern.

Figure 13

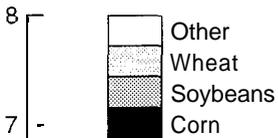
Breakdown of Total Grains Sold
Corn-Soybean First-Handler Co-ops

Medium

Bushels (Mil.)



Large



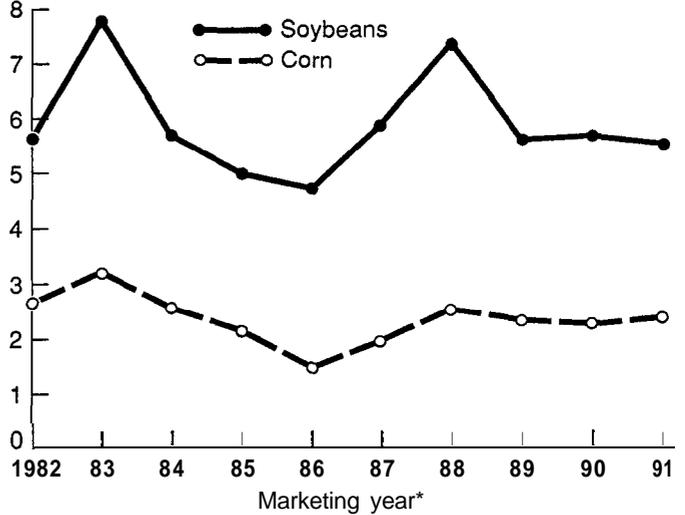
Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 14

Seasonal Average Prices Received
By Commodity, Corn Belt

\$/bu.



*Corn-1 0/1-9/30 Soybeans-9/1-8/31

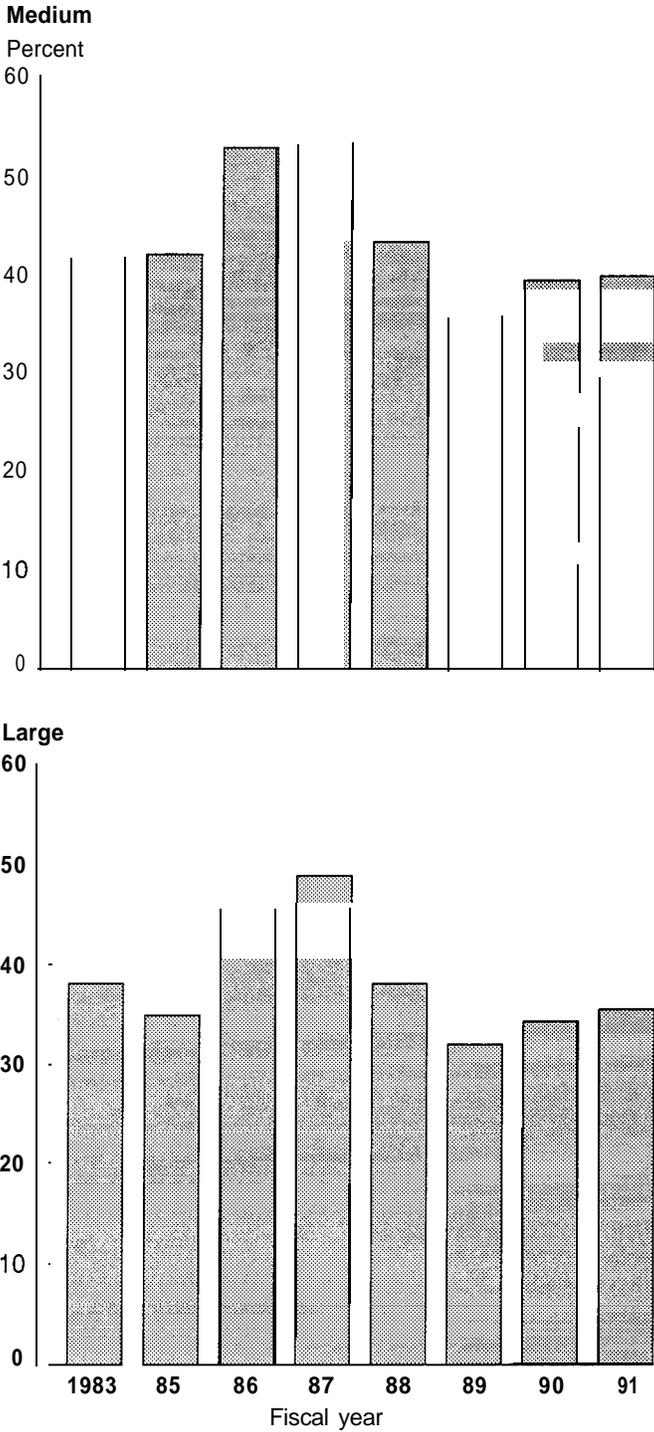
Source: USDA, N.A.S.S.. Agricultural prices, Washington, D.C., Annual summary issues.

It was essentially at the same level in most years for both size groups (fig. 22). Labor efficiency dropped steadily from 1983 to 1987, more because of declining sales than because of rising labor costs for the large cooperatives. The reverse was true for the medium-sized cooperatives. For the large first-handlers, the sharp improvement in labor efficiency during 1988-89 was largely because of increased grain sales. For medium-sized cooperatives, efficiency increased largely because of lower labor costs in 1988 and increased sales in 1989. Entering the 1990s, sales were slipping-to-flat and labor costs were generally rising.

Other Expenses-Other operating expenses declined during the period, attributable largely to efforts to reduce overhead costs. Many grain associations had to adjust to operating more efficiently and generating higher profits given the excess fast-loading, unit-train shipping capacity acquired and/or constructed in the latter 1970s and early 1980s. This expanded infrastructure was largely unit-train grain shipping capability and additional grain storage capacity. (See appendix B and reference (2) for detailed information on cooperatives operating with unit-train capability).

Figure 15

Nonmargin of Total Operating Income
Corn-Soybean First-Handler Co-ops

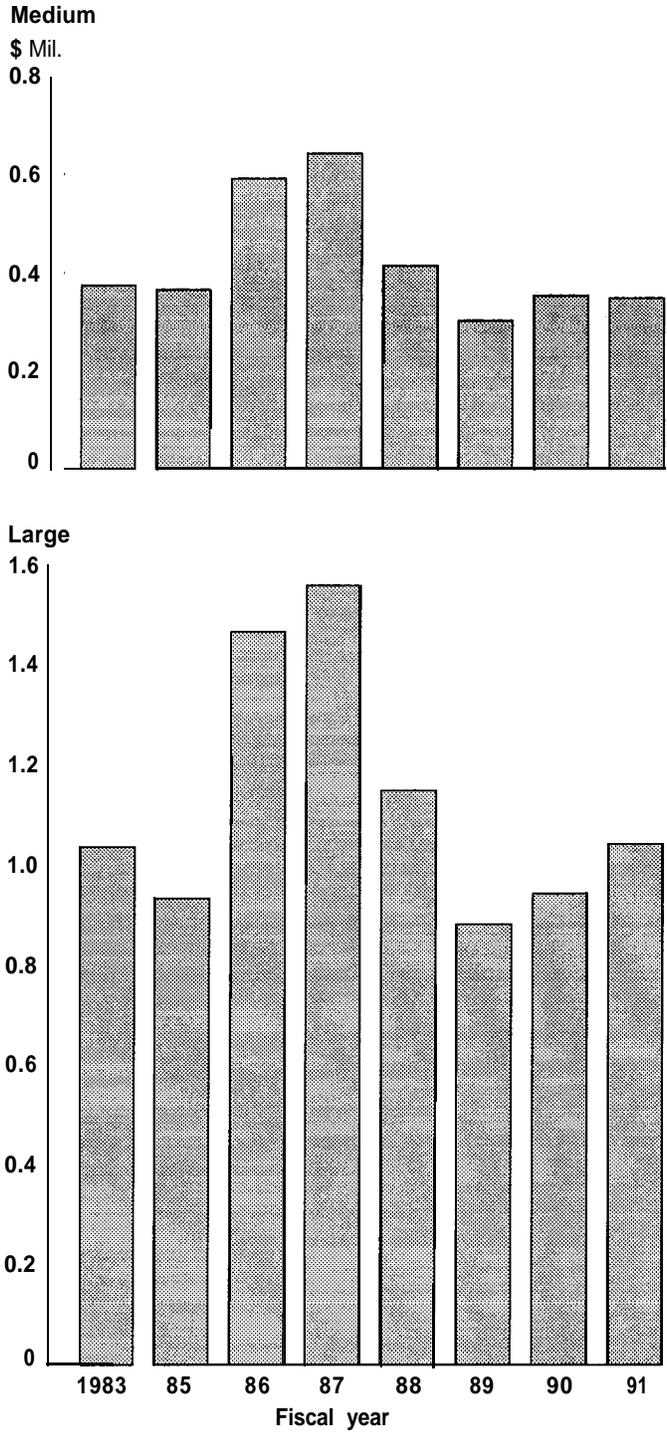


Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 16

Other Operating Income
Corn-Soybean First-Handler Co-ops

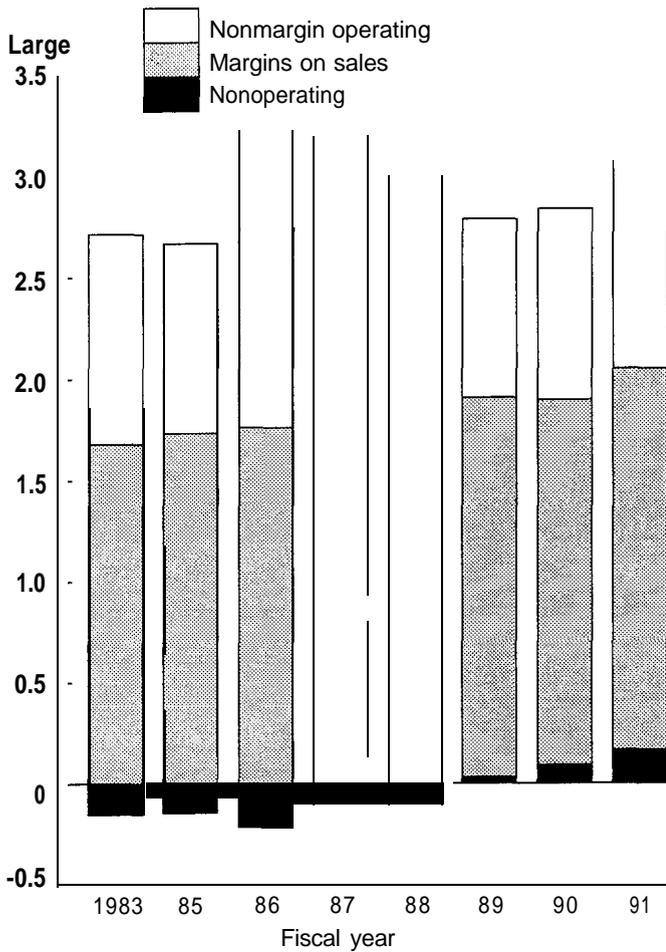
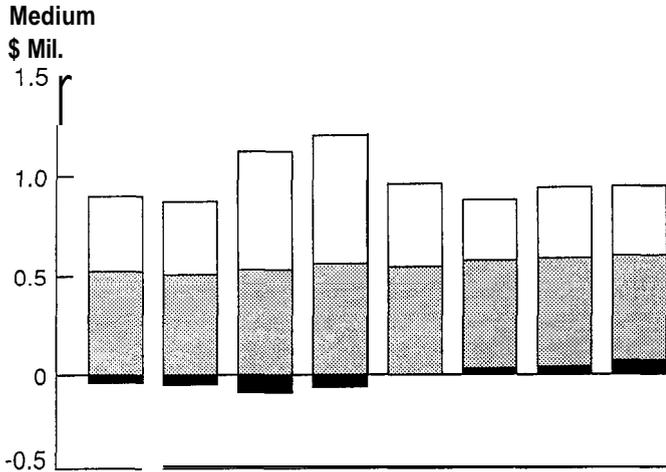


Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 17

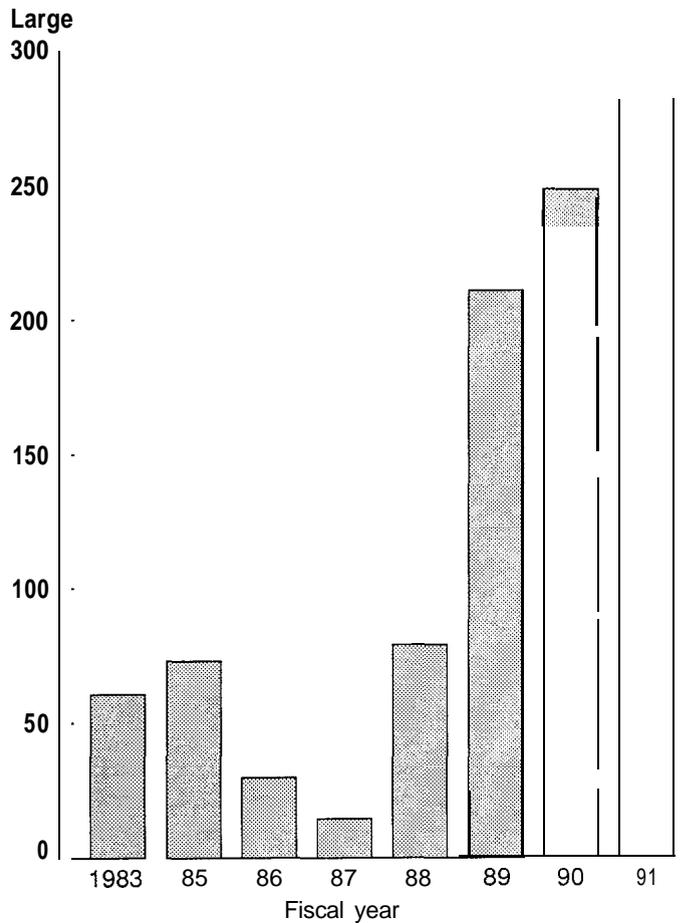
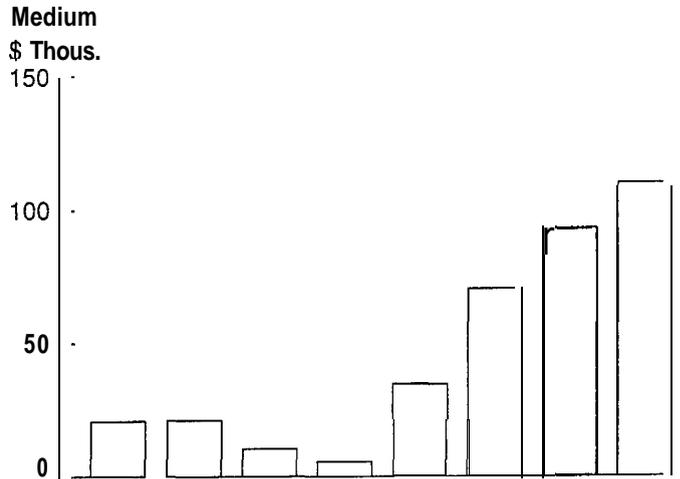
Gross Income Sources
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
 Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 18

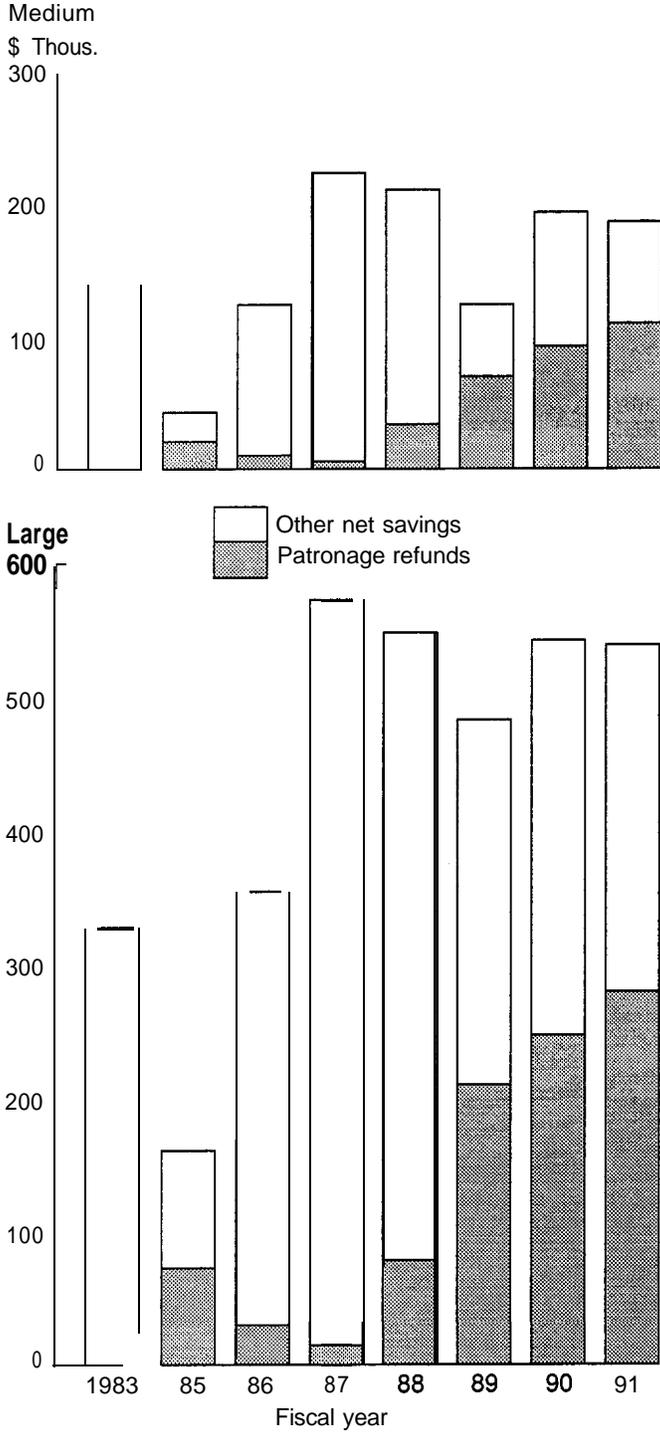
Patronage Refunds Received
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
 Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales

Figure 19

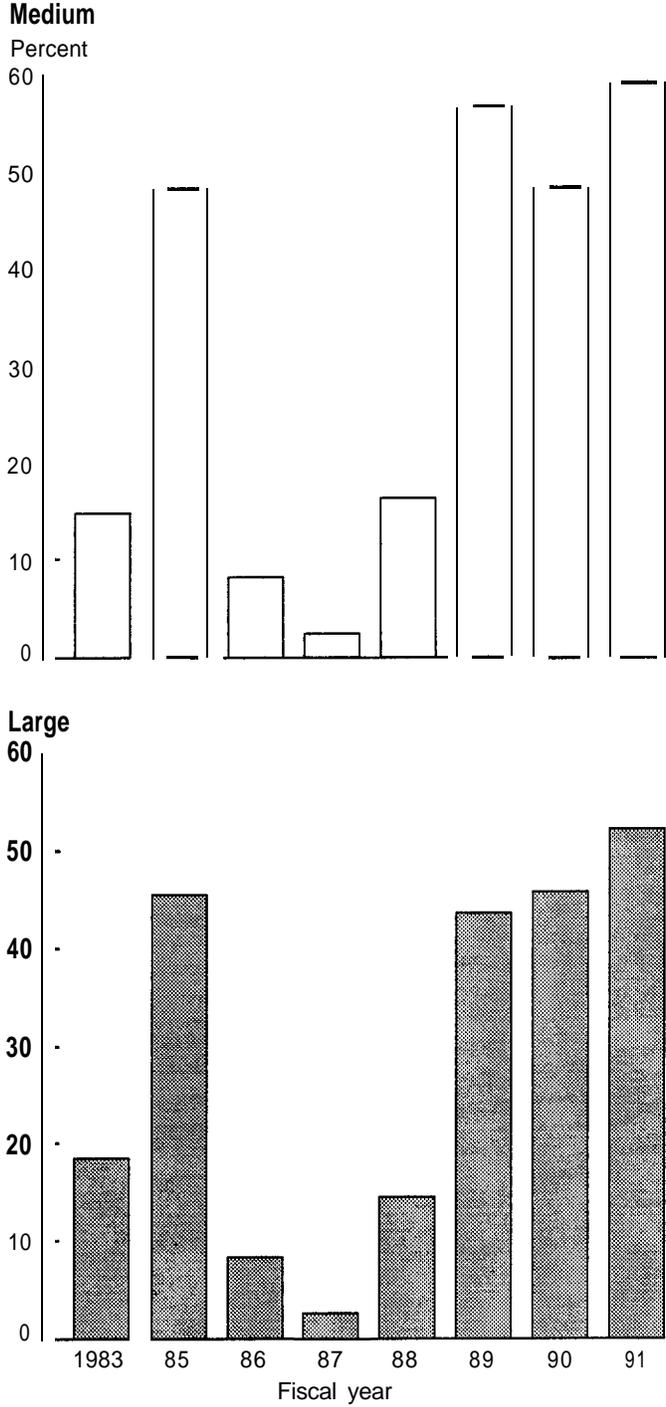
Patronage Refunds Received and Total Net Savings
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 20

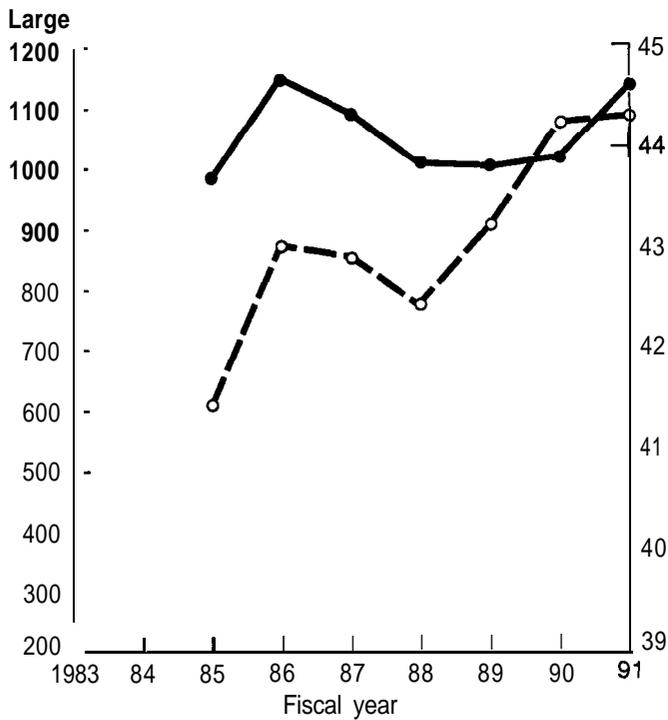
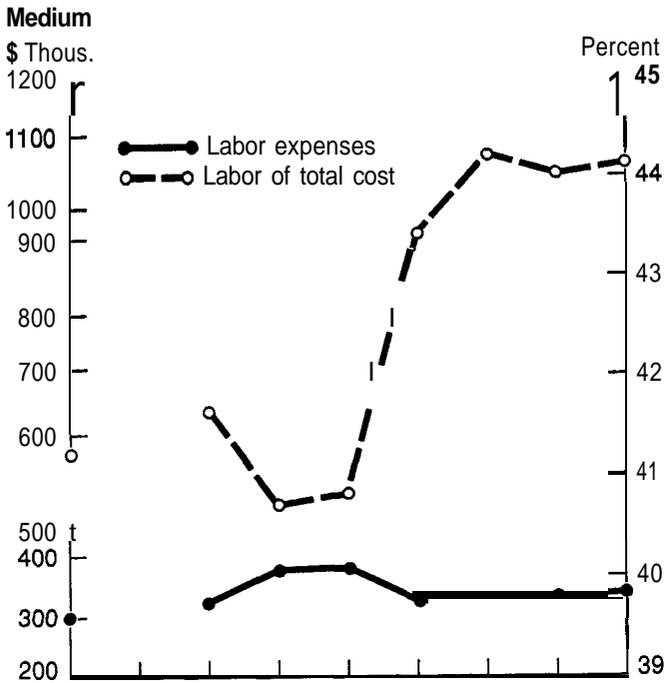
Proportion Patronage Refunds Received of Net Savings
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 21

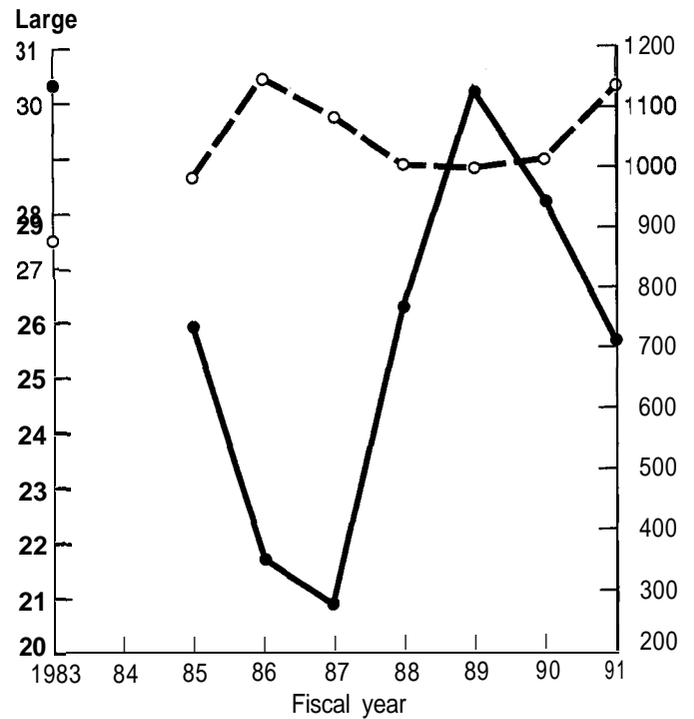
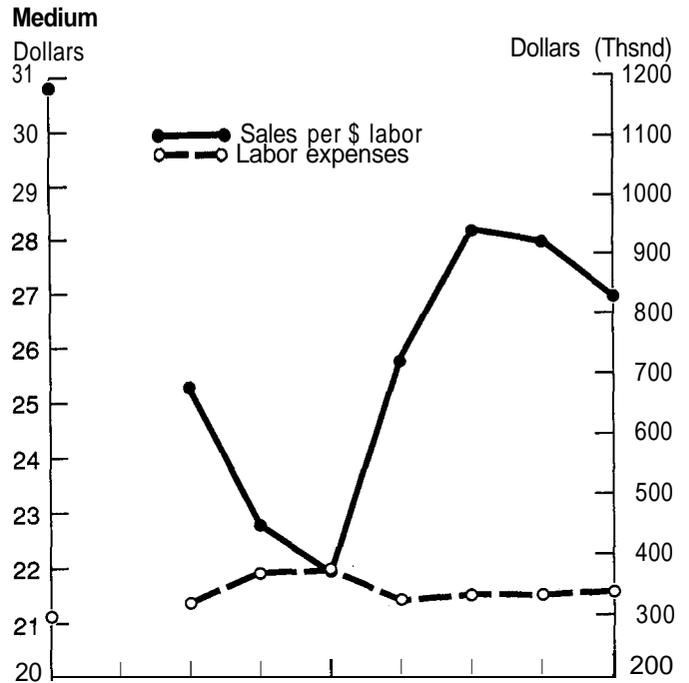
Labor Cost and Proportion of Total Cost
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total Sales.

Figure 22

Total Labor Cost & Sales Per Dollar Labor
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15mil. plus total Sales.

Expansion was generally in response to growth in grain exports during the latter 1970s and to expectations of continued growth well into the 1980s. U.S. corn exports peaked in 1980 at about 2.4 billion bushels and dropped to about 1.1 billion bushels in 1986. Similarly, soybean exports peaked in 1982, at about 0.9 billion bushels, and dropped steadily to about 0.6 billion bushels in 1985. This translated into a tremendous change in operating efficiency and profitability in grain merchandising.

Snapshot of Cost Structure-Time series operating cost data exist for only the labor and other operating expenses breakdown presented above. A detailed breakdown of costs prepared for 1989 under three major categories- labor, facility, and general/administrative-is contained in appendix C. Cost distributions are similar, yet different, for both medium-sized and large cooperatives.

Labor and general/administrative expenses are a higher proportion of total operating cost for medium-sized than for large local grain cooperatives. Facility, interest, and income taxes account for a higher proportion of the total for large cooperatives. The breakdown of total labor cost reveals similar percentages for wages/salaries (84 percent), fringe benefits (9 percent), and taxes (7 percent) for both size groups.

Grain Storage Capacity

Grain storage capacity data are not available for local grain cooperatives for 1986-88, but data available for the remaining years largely mirror the national pattern. The decline in U.S. grain exports in the early 1980s was accompanied by a buildup in U.S. grain stocks, which peaked in 1986-87 at 8.4 billion bushels. This buildup, accompanied by Government agricultural program incentives, in turn, led to an increase in U.S. grain storage capacity. It reached a record 22.9 billion bushels on Dec. 1, 1988. Grain storage capacity has been declining and grain stocks have dropped sharply since. This has resulted in considerable excess grain storage capacity, and reduced storage income.

Cooperative grain storage capacity per association for both size groups shows early period increases, accompanied by declines in marketings and turnover rate (tables 1 and 3). Storage levels for 1989-91 averaged about 12 percent and 16 percent higher than for 1983-85 for medium-sized and large associations, respectively. Rising turnover rates in the 1990s largely reflect the pickup in grain merchandising.

Balance Sheet

Assets

Total value of assets per association varied narrowly and averaged about \$3 million for the medium-sized firms during the study period and was about \$8 to about \$10 million for the large firms (table 4). Net book value of fixed assets-physical facility and related equipment operated-tended to decline throughout the period for both groups (fig. 23).

Current assets per association increased and averaged significantly higher in value in the latter half of the period-26 percent and 41 percent, respectively, for medium-sized and large cooperatives. This coincides with the grain industry shift from a storage mode in 1985-86 involving largely Government-owned grain to the marketing mode involving primarily privately owned grain and accompanying inventory buildup that has prevailed since. The variation in total current assets value is attributable mostly to changes in the inventory value of crops.

Local first-handler investments, mostly in other cooperatives, slid until turning and reversing the decline beginning in 1989. The early half-period drop corresponded to the decline in the value of their regionals' assets. Despite this pattern, the level of the locals' investments in the early 1990s had not returned to early levels. This was particularly true for the medium-sized firms.

Member ownership (equity) of total assets varied between 60 and 65 percent for the medium-sized cooperatives while declining beginning in 1985 (fig. 24). Medium-sized associations owned a noticeably higher proportion of their assets than larger counterparts. Member ownership of assets for large firms climbed through 1987, but then dropped almost as fast as it had risen.

Equity Capital

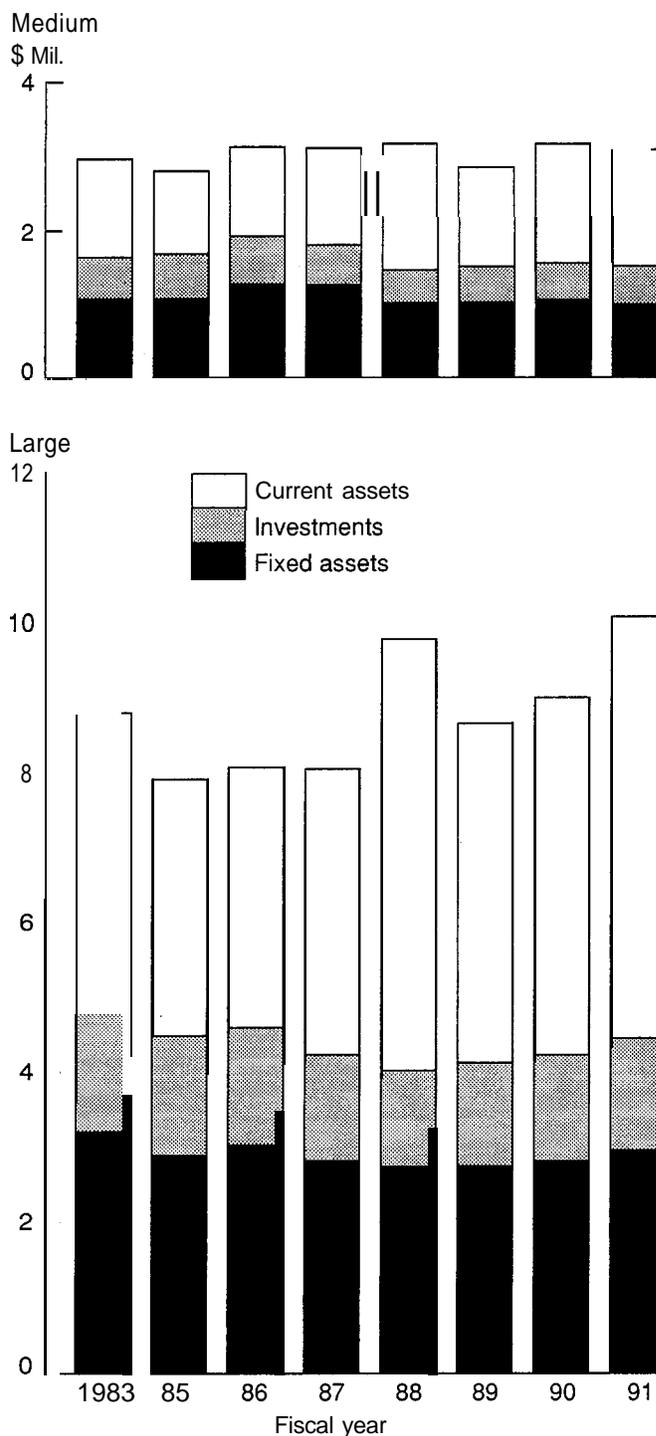
Equity capital represents the member-ownership and control of the cooperative. It serves as a buffer for creditors in absorbing operating losses and declines in asset values. Many cooperatives found themselves adjusting to both during 1983-91.

Equity capital usually takes the form of stock (common and preferred), the noncash portion of patronage dividends declared (allocated), and unallocated reserves. The relative importance of these forms of equity varied considerably between the two size groups (fig. 25).

Figure 23

Total Assets Categories

Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available

Medium = \$5.0 - 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Table 4-Selected balance sheet data for corn-soybean first-handlers-of-grain cooperatives, by total sales group, 1983-91*

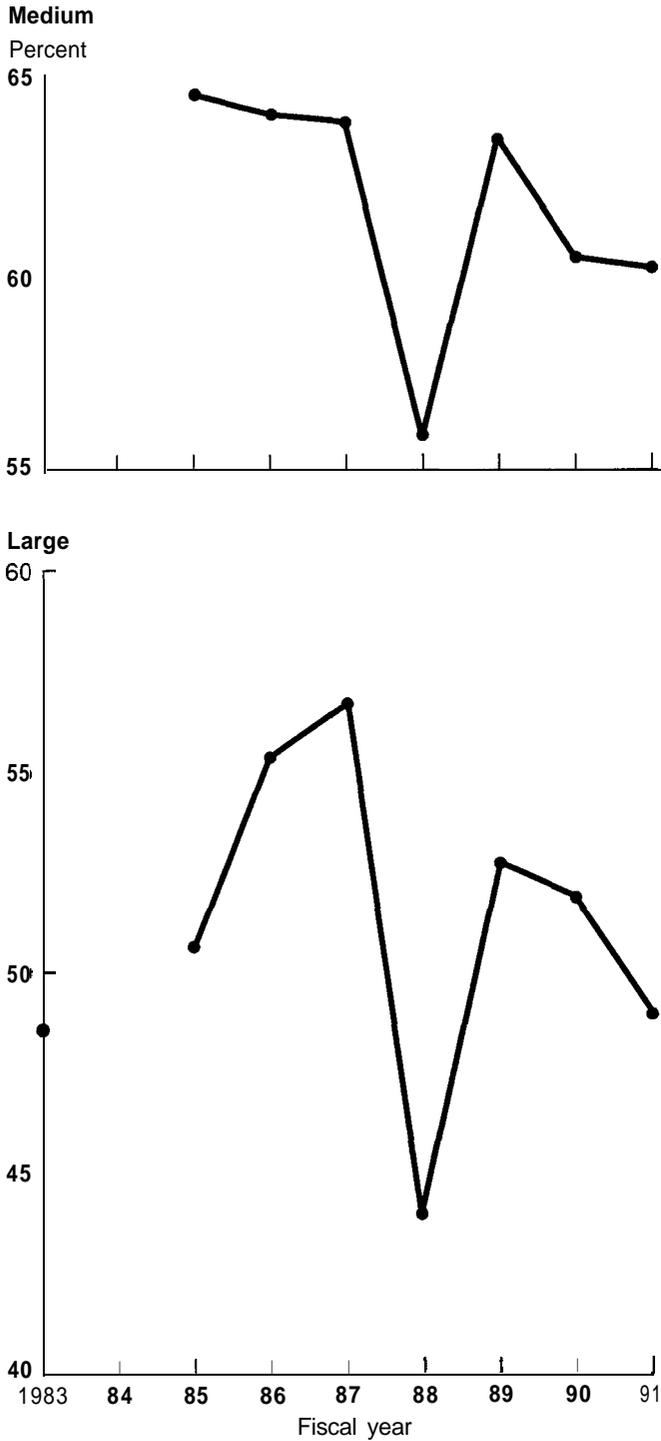
Item	Unit	1983	1985	1986	1987	1988	1989	1990	1991
<i>\$5- 14.9 million</i>									
Current assets	Dollars	1,319,916	1,112,149	1,203,939	1,306,669	1,701,487	1,343,643	1,607,462	1,561,155
Investments	Dollars	563,496	610,693	650,212	537,601	454,946	489,056	499,233	522,316
Fixed assets	Dollars	1,060,432	1,056,585	1,264,406	1,254,793	1,007,548	1,017,618	1,053,110	989,316
Other assets	Dollars	17,236	22,571	15,672	18,404	9,437	9,830	10,639	10,400
Total	Dollars	2,961,080	2,801,998	3,134,229	3,117,467	3,173,418	2,860,147	3,170,444	3,083,187
Current liabilities	Dollars	899,086	689,886	802,703	845,560	1,212,182	883,982	1,094,272	1,066,527
Long-term liab.	Dollars	394,528	305,695	326,847	283,537	188,046	163,215	160,562	161,801
Equity	Dollars	1,667,466	1,806,417	29004,679	1,988,370	1,773,190	1,812,950	1,915,610	1,854,859
Total	Dollars	2,961,080	2,801,998	3,134,229	3,117,467	3,173,418	2,860,147	3,170,444	3,083,187
Working capital ¹	Dollars	480,830	422,263	401,236	461,109	489,305	459,661	513,190	494,628
Total debt	Dollars	737,811	537,848	550,042	531,315	782,586	440,819	619,654	476,668
Ratios:									
Current Liab./equity	Number	1.47	1.61	1.50	1.55	1.40	1.52	1.47	1.46
Equity/total assets	Number	0.56	0.64	0.64	0.64	0.56	0.63	0.6	0.6
Debt/total assets	Number	0.25	0.19	0.18	0.17	0.25	0.15	0.2	0.15
Debt/equity	Number	0.44	0.30	0.27	0.27	0.44	0.24	0.32	0.26
<i>\$15 million or more</i>									
Current assets	Dollars	3,965,367	3,419,267	3,453,062	3,807,460	5,744,014	49523,147	4,762,783	5,607,911
Investments	Dollars	1,619,485	1,604,271	1,587,166	1,420,794	1,280,511	13384,535	1,423,612	1505,324
Fixed assets	Dollars	3,166,766	2,764,174	2,986,887	2,768,860	2,704,669	2,712,647	2,760,945	2,923,094
Other assets	Dollars	37,434	122,179	37,804	46,827	35,175	31,425	50,771	29,588
Total	Dollars	8,789,052	7,909,891	8,064,919	8,043,941	9,764,369	8,651,754	8,998,111	10,065,917
Current liabilities	Dollars	3,055,353	2,491,826	2,377,782	2,732,809	4,751,804	3,516,805	3,678,547	4,467,709
Long-term liab.	Dollars	1,466,769	1,414,821	1,229,972	756,413	721,119	577,057	652,966	670,363
Equity	Dollars	4,266,930	4,003,244	4,457,165	4,554,719	4,291,446	4,557,892	4,666,598	4,927,845
Total	Dollars	8,789,052	7,909,891	8,064,919	8,043,941	9,764,369	8,651,754	8,998,111	10,065,917
Working capital ¹	Dollars	910,014	927,441	1,075,280	1,074,651	992,210	1,006,342	1,084,236	1,140,202
Total debt	Dollars	2,833,951	2,318,339	1,933,607	1,539,949	2,959,679	1,616,717	1,671,124	1,723,965
Ratios:									
Current Liab./equity	Number	1.06	0.98	0.81	0.77	1.28	0.90	0.93	1.04
Equity/total assets	Number	0.49	0.51	0.55	0.57	0.44	0.53	0.52	0.49
Debt/total assets	Number	0.32	0.29	0.24	0.19	0.30	0.19	0.19	0.17
Debt/equity	Number	0.66	0.58	0.43	0.34	0.69	0.35	0.36	0.35

¹ 1984 data not available.

Current assets minus current liabilities.

Figure 24

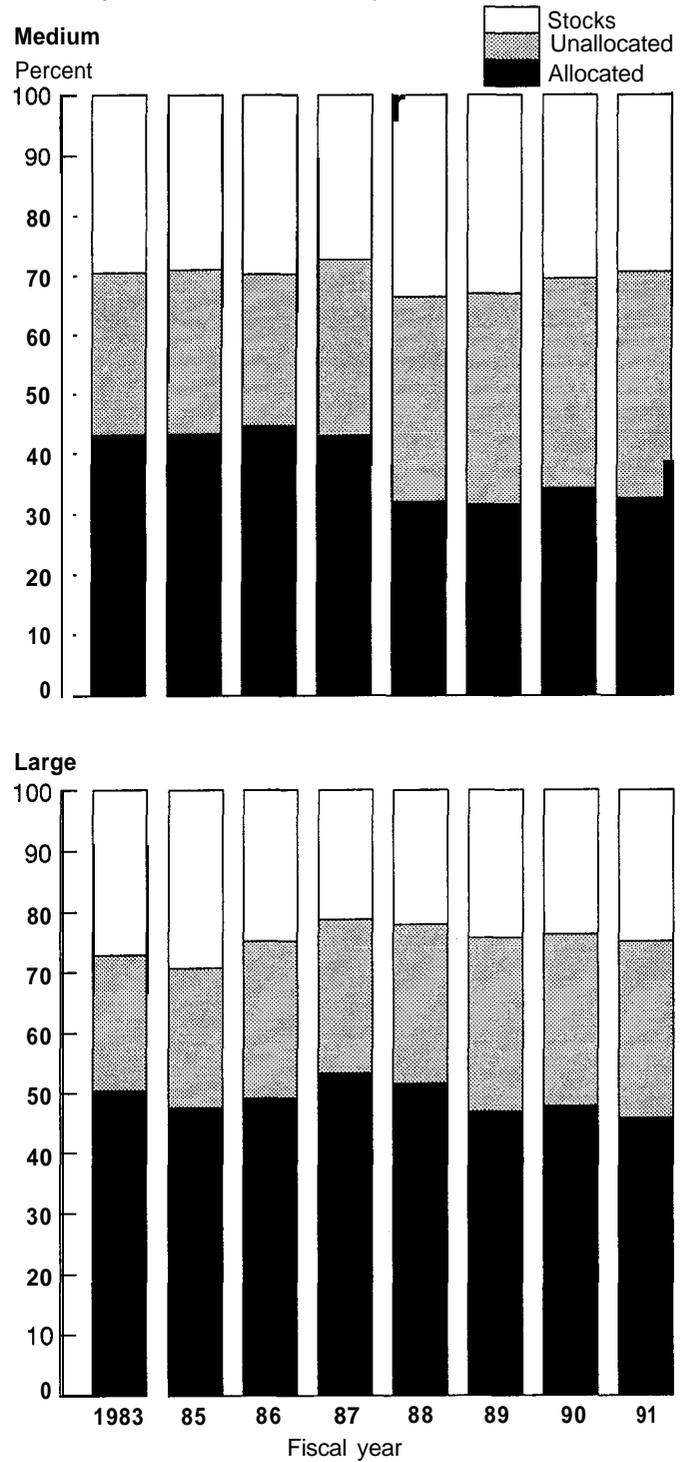
Member Equity of Total Assets
Corn-Soybean First-Handler Co-ops



Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 25

Breakdown of Member Equity
Corn-Soybean First-Handler Co-ops



Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

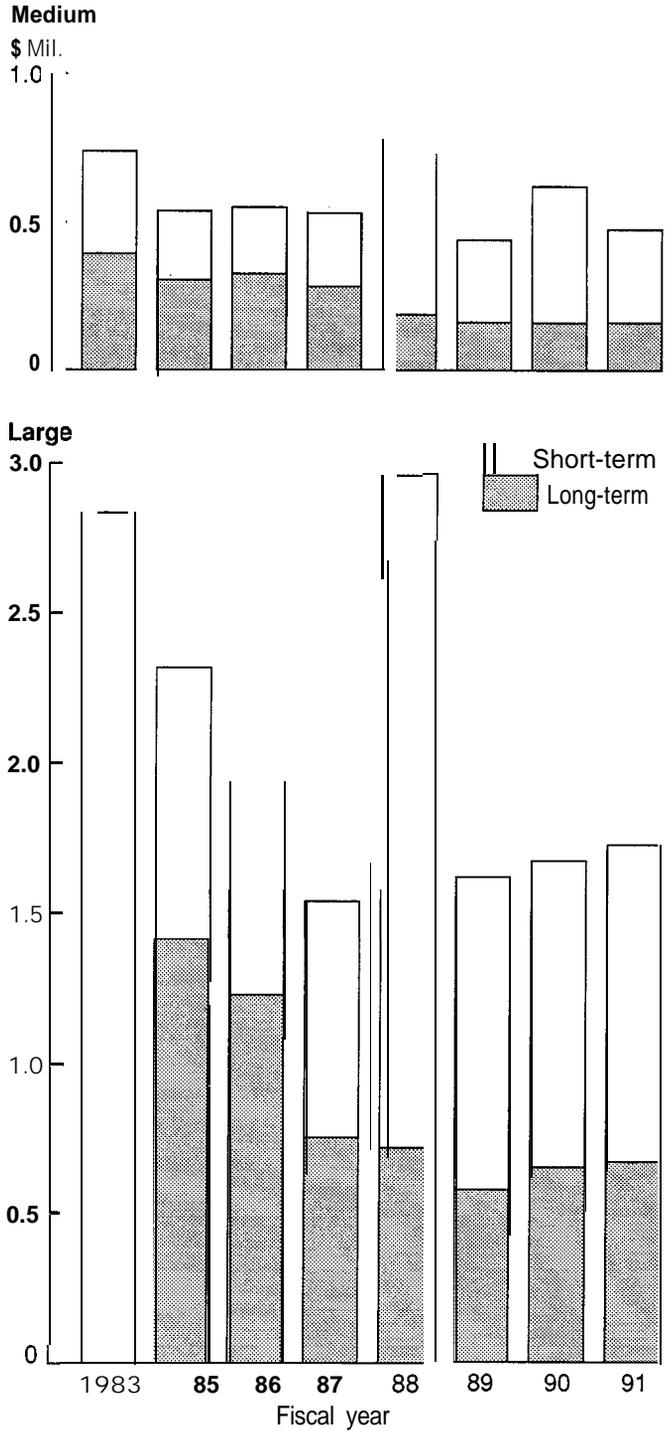
Common stock, generally linked to voting or membership by grain cooperatives, is an important source of equity capital for those in the Corn Belt. Stock as a proportion of total member equity was about 29 percent at both ends of the period, varying between 29 and 33 percent in between, for medium-sized firms (table 5). The rate for large firms was about the same as for medium-sized firms at the beginning of the period, but then declined and varied mostly in the low-to-mid 20s. There was a definite shift from allocated capital credits, mostly patronage refunds, to unallocated reserves during the period for medium-sized grain cooperatives. The unallocated reserves proportion also climbed for large firms, but represented a shift away from stock capital.

Debt Structure

Reduction of long-term debt was an important objective and accomplishment for local grain cooperatives during 1983-91. Medium-sized and large firms had achieved manageable levels of debt by the end of the period (fig. 26 and table 6). In fact, long-term debt in the early 1990s averaged less than 50 percent of 1983-85 levels for both size groups. The exception was 1988, when short-term debt associated with an unusually large buildup of grain inventories increased sharply, particularly among large cooperatives.

Figure 26

Breakdown of Debt
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Table 5—Amount and types of member equity capital of corn-soybean first-handlers-of-grain cooperatives, by total sales group, 1983-91*

Item	Unit	1983	1985	1986	1987	1988	1989	1990	1991
<i>\$5-14.9 million</i>									
MEMBER EQUITY	Dollars	1,667,466	1,806,417	2,004,679	1,988,370	1,773,190	1,812,950	1,915,610	1,854,859
Stock ¹	Percent	29.5	29.0	29.7	27.3	33.5	33.0	30.4	29.3
Allocated	Percent	43.0	43.2	44.7	42.9	32.0	31.5	34.2	32.5
Unallocated	Percent	27.5	27.8	25.6	29.8	34.5	35.5	35.4	38.2
<i>\$15 million or more</i>									
MEMBER EQUITY	Dollars	4,266,930	4,003,244	4,457,165	4,554,719	4,291,446	4,557,892	4,666,598	4,927,845
Stock ¹	Percent	27.2	29.3	24.7	21.2	22.0	24.2	23.6	24.8
Allocated	Percent	50.4	47.6	49.1	53.3	51.6	46.9	47.8	45.8
Unallocated	Percent	22.4	23.1	26.2	25.5	26.4	28.9	28.6	29.4

*1984 data not available.

¹ Common, capital, and preferred stock, plus stock credits and fractional shares.

Table 6—Debt structure of corn-soybean first-handlers-of-grain cooperatives, by total sales group, 1983-91*

Type of debt	Unit	1983	1985	1986	1987	1988	1989	1990	1991
<i>\$5- 14.9 million</i>									
Short-term	Dollars	343,283	232,153	223,195	247,778	594,540	277,604	459,092	314,867
Long-term	Dollars	<u>394,528</u>	<u>305,695</u>	<u>326,847</u>	<u>283,537</u>	<u>1 88,046</u>	<u>163,215</u>	<u>160,562</u>	<u>161,801</u>
Total	Dollars	737,ai 1	637,848	550,042	531,315	782,586	440,819	619,654	476,668
Long-term	Percent	53.5	56.8	59.4	53.4	24.0	37.0	25.9	33.9
<i>\$15 million or more</i>									
Short-term	Dollars	1,367,182	903,51a	703,635	783,536	2,238,560	1,039,660	1,018,158	1,053,601
Long-term	Dollars	<u>1,466,769</u>	<u>1,414,821</u>	<u>1,229,972</u>	<u>756,413</u>	<u>721.119</u>	<u>577.057</u>	<u>652.966</u>	<u>670,363</u>
Total	Dollars	2,833,951	2,318,339	1,933,607	1,539,949	2,959,679	1,616,717	1,671,124	1,723,965
Long-term of total	Percent	51.8	61.0	63.6	49.1	24.4	35.7	39.1	38.9

● 1984 data not available.

Financial Statement Analysis

Analysis of a financial statement entails isolating various factors and constructing key relationships, usually ratios, for evaluating 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 they cannot be used to solve problems. Ratios are used as guidelines for planning purposes and as a meaningful aid in formulating actions. Caution must be exercised in their use because both items in a ratio are subject to considerable variation. Their interpretation is largely subjective in the absence of fixed standards or hard and fast rules.

Ratios, at best, are approximations. Their application is limited because of differences attributed to factors like cooperative size, time-of-year closing, different accounting procedures, and use of financial resources. Several different ratios are meaningful in analyzing the cooperatives represented in this study.

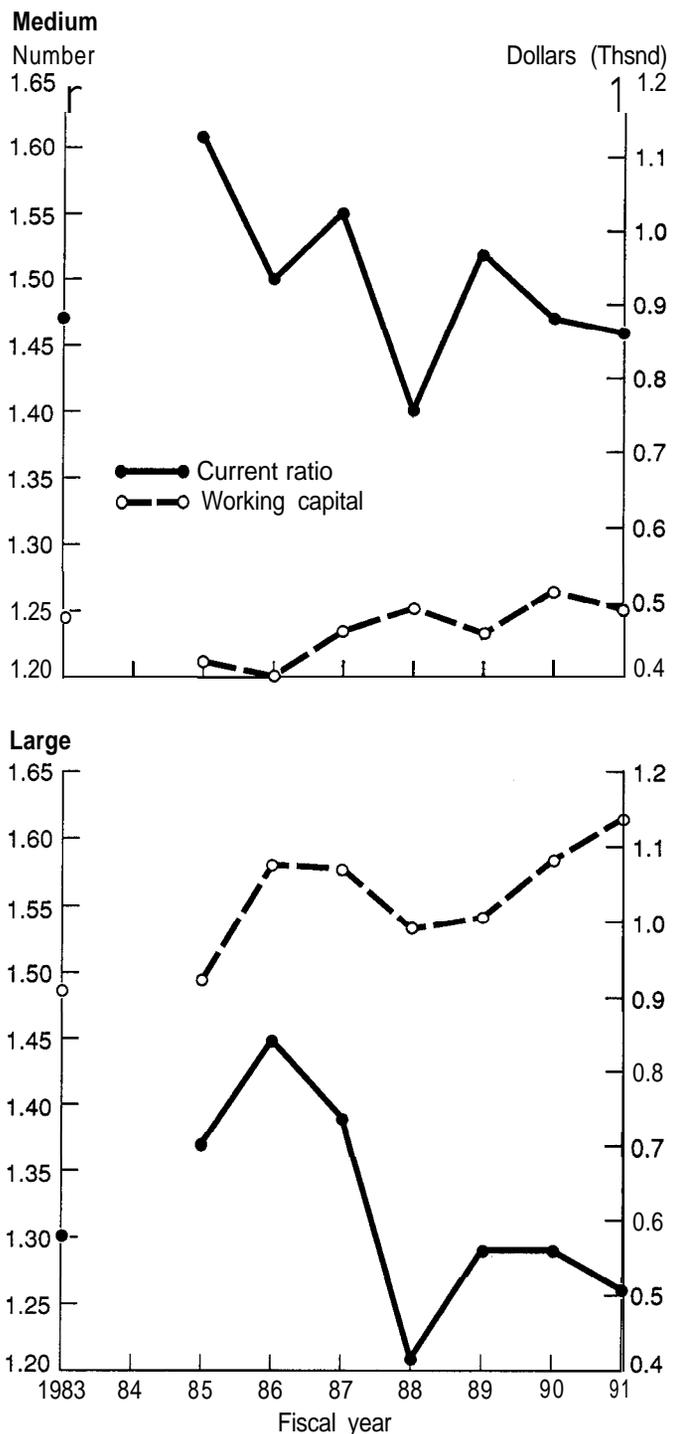
The ratio that probably best measures the cooperative's ability to meet its current financial obligations in a timely way is the current ratio. Despite the increase in working capital during 1983-91, calculation of the current ratio reveals an accompanying general worsening of the short-run liquidity situation for first-handlers of grain (fig. 27 and table 4). Even though liquidity is reflected for both size groups, medium-sized firms were in a better liquidity situation than large ones. This discouraging trend suggests that a number of the particularly large cooperatives might have been experiencing or headed for a short-run liquidity problem. Although ratio values greater than 1.0:1 technically mean short-run liquidity, widely accepted guideline values are around 1.7:1 to 1.8:1.

The current ratio position can be misleading in isolation. It should be interpreted with caution regarding the overall financial health of an individual cooperative or group of cooperatives. A current ratio should be analyzed in conjunction with other

Figure 27

Current Ratio and Working Capital

Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

information pertaining to the cooperative's ability to generate sufficient revenue to meet current debt obligations.

The liabilities-to-net worth (equity) ratio measures the amount of money members owe creditors in relation to how much they have invested. It was significantly different for the two size groups. This ratio varied mostly between 55 and 66 cents owed per \$1 invested for medium-sized firms (fig. 28 and table 4). On the other hand, large corn-soybean cooperatives owed creditors about as much as or more than members had invested during most of the period. Considerable long-term debt and current liabilities (mainly crop inventories) typified the early years. Despite sharply reduced long-term debt levels and rising equity in the latter years, the considerably higher current liabilities levels due to the increased grain volumes handled kept the ratio close to 1 :1 into the 1990s.

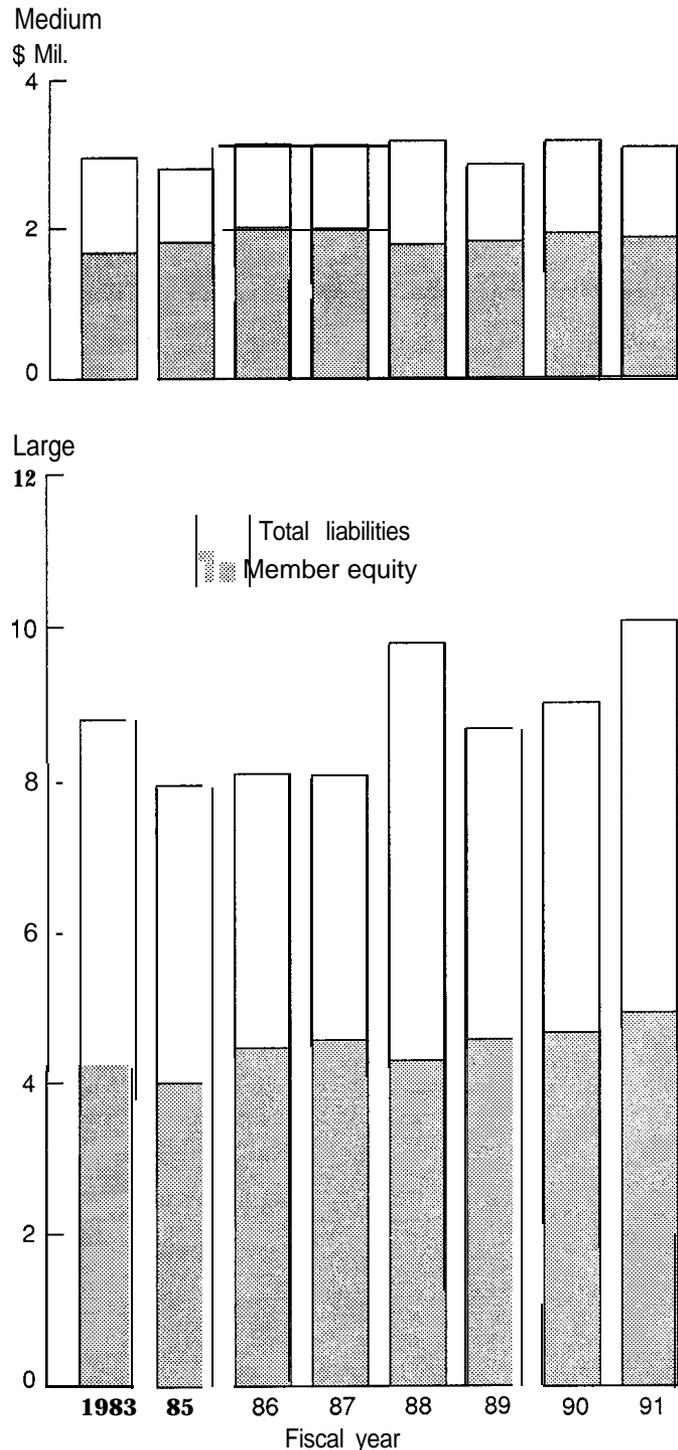
The debt-to-equity ratios reveal general improvement in the amount of debt capital in relation to the amount of member investment dollars. This increased solvency was attributed to debt reduction for medium-sized local grain cooperatives and a combination of debt reduction and increasing member equity for large cooperatives (fig. 29 and table 4).

The debt-to-equity ratio reflects not only the universal importance of debt to a cooperative's solvency, but also its influence on profitability. Associations with higher debt-to- equity ratios averaged significantly lower net savings than those with lower ratios. This was as true for the 1990s as it was for 1983 and 1985 (table 7). This also was the pattern for net savings as a percentage of member equity (return to equity). Rates of return averaged nominal and even negative in 1985 for most association groups with debt-to-equity ratios of at least 0.70:1.

Calculation of the net savings-to-equity ratio, the one used most often to measure return on member investment, shows generally increasing returns. The pattern of change in this ratio during 1983-91 was similar for both size groups, with rates of return generally 1 to 2 percentage points higher for the large cooperatives (fig. 30 and table 2). Returns for both size groups were highest during the Government storage mode period, followed by the 1990s.

Figure 28

Member Equity and Total Liabilities
Corn-Soybean First-Handler Co-ops

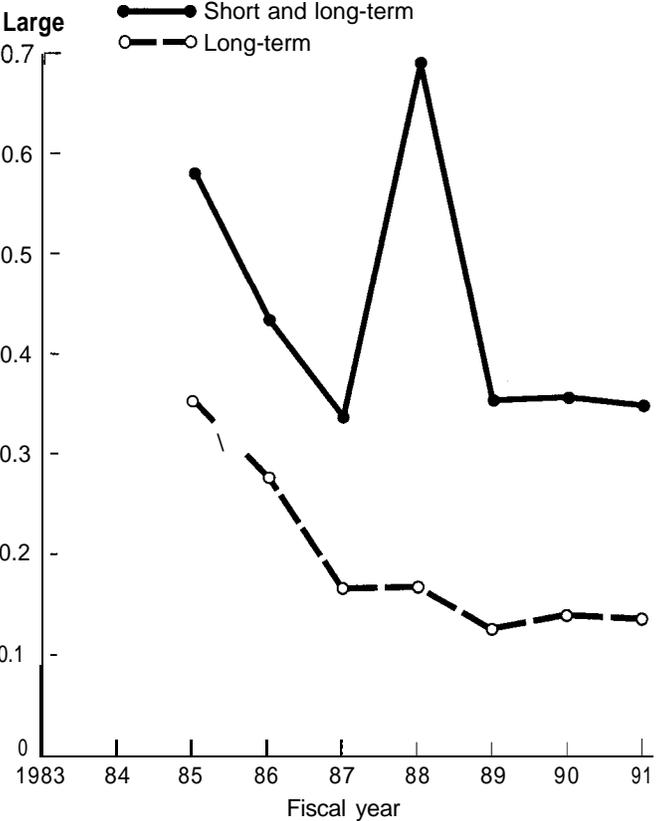
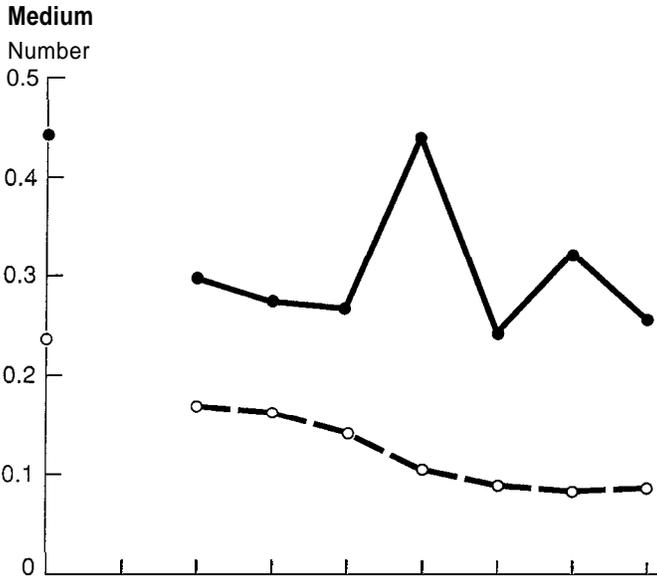


Fiscal year 1984 not available

Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 29

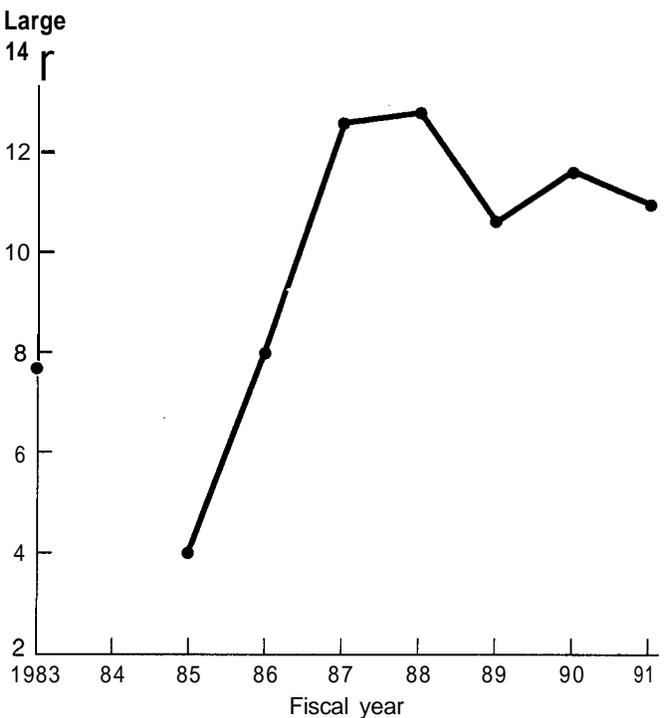
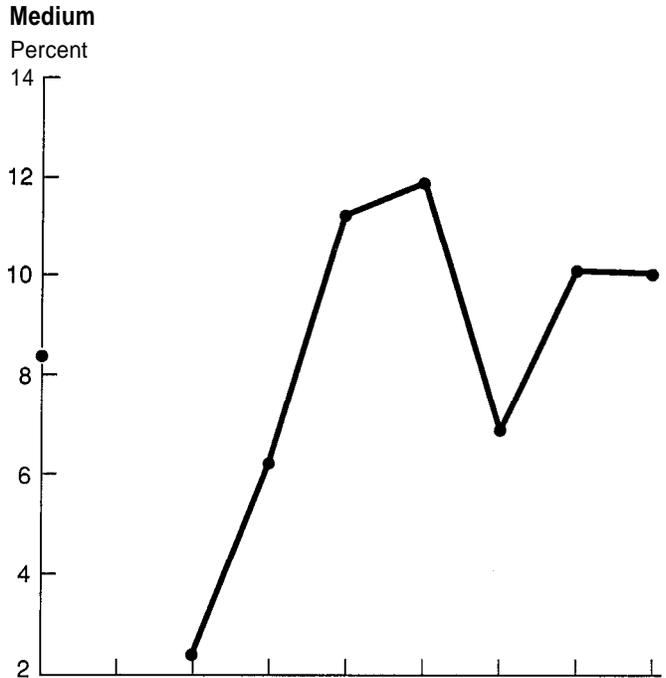
Debt/Equity Ratios
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Figure 30

Net Savings of Member Equity
Corn-Soybean First-Handler Co-ops



Fiscal year 1984 not available
Medium = \$5.0 — 14.9 mil. total sales. Large = \$15 mil. plus total sales.

Table 7-Net savings and return to member equity for corn-soybean first-handlers-of-grain cooperatives by debt/equity ratio, by total sales group, 1983,85,90,91

Debt/equity ratio	Unit	1983	1985	1990	1991
NET SAVINGS					
<i>\$5- 14.9 million sales</i>					
zero	Dollars	196,994	165,385	268,371	199,420
.01-.39	Dollars	200,867	78,689	225,185	218,110
.40-.69	Dollars	105,315	-4,023	128,432	137,264
.70 plus	Dollars	59,143	-120,233	90,408	48,864
<i>\$15 million or more sales</i>					
zero	Dollars	633,694	503,163	1,240,765	908,089
.01-.39	Dollars	488,610	280,099	603,914	567,707
.40-.69	Dollars	486,479	221,226	407,353	577,103
.70 plus	Dollars	41,267	-83,670	356,063	319,772
RETURN TO EQUITY					
<i>\$5- 14.9 million sales</i>					
zero	Percent	16.05	8.49	14.21	11.22
.01-.39	Percent	10.52	4.13	10.96	11.10
.40-.69	Percent	6.40	-1.11	7.47	7.28
.70 plus	Percent	4.43	-11.07	5.63	3.96
<i>\$15 million or more sales</i>					
zero	Percent	20.67	9.96	16.62	20.62
.01-.39	Percent	12.08	6.88	12.54	10.99
.40-.69	Percent	9.95	4.44	10.05	11.24
.70 plus	Percent	0.96	-2.77	8.23	8.54

References

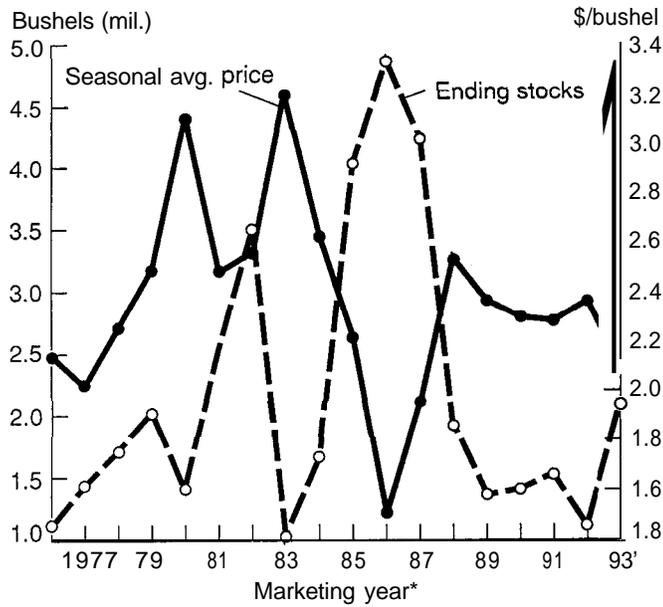
- (1) "Patronage Refunds Boost Income of Local Grain Cooperatives," *Farmer Cooperatives* magazine. David E. Cummins, ACS, September 1991, pp. 7-9.
- (2) "Co-ops Using Unit-Trains Lead Corn Belt Recovery," *Farmer Cooperatives* magazine. David E. Cummins, ACS, August 1991, pp. 6-7.
- (3) "Led by Larger Cooperatives, Grain Handlers Turn the Corner," *Farmer Cooperatives* magazine. David E. Cummins, ACS, July 1990, pp. 8-10.
- (4) Comparative Financial Profile of Cooperatives Handling Grain: First-Handlers With \$1 Million or More in Sales. David E. Cummins and Francis P. Yager, ACS Research Report 63, June 1987.
- (5) Financial Profile of Cooperatives Handling Grain: First- Handlers, \$1 Million to \$4.9 Million in Sales. Francis P. Yager and David E. Cummins, ACS Research Report 58, January 1987.
- (6) Financial Profile of Cooperatives Handling Grain: First- Handlers, \$5 Million to \$14.9 Million in Sales. David E. Cummins and Francis P. Yager, ACS Research Report 55, May 1986.
- (7) Financial Profile of Cooperatives Handling Grain: First- Handlers, \$15 Million Sales or Larger. Francis P. Yager and David E. Cummins, ACS Research Report 53, January 1986.
- (8) Cooperative Involvement in Grain Marketing. David E. Cummins, Francis P. Yager, Charles L. Hunley, Michael D. Kane, and Bruce J. Reynolds, ACS Research Report 38, August 1984.
- (9) Regional Grain Cooperatives, 1980 and 1981. Stanley K. Thurston and David E. Cummins, ACS Research Report 27, April 1983.

Appendix A

Appendix A-Figure 1

Corn for Grain

Prices Received by Farmers and Ending Stocks in U.S.

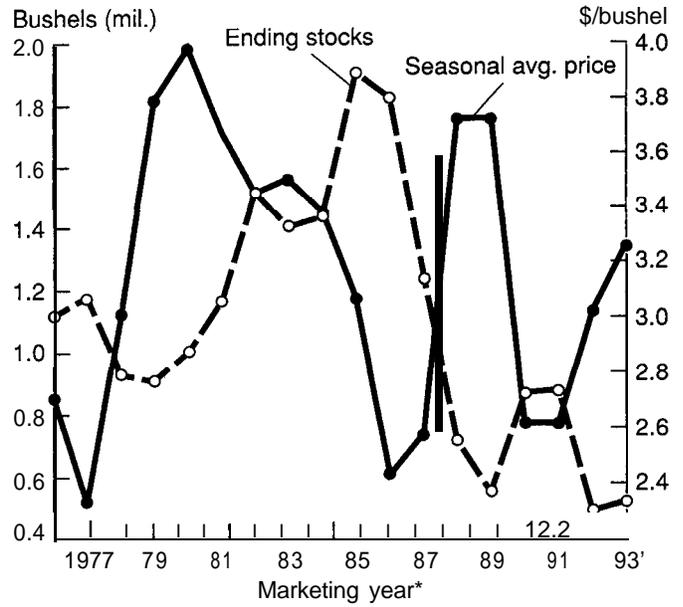


*Estimated.
*September 1-August 31

Appendix A-Figure 3

All Wheat

Prices Received by Farmers and Ending Stocks in U.S.

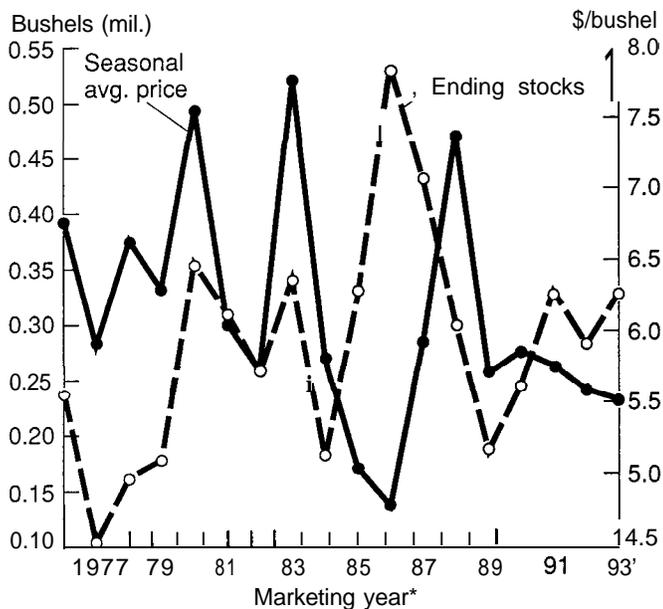


*Estimated.
*June 1-May 31

Appendix A-Figure 2

Soybeans

Prices Received by Farmers and Ending Stocks in U.S.



*Estimated.
*September 1 -August 31

Appendix B

Appendix B Table I-Selected physical facility and income statement data for corn-soybean first-handlers-of-grain cooperatives, by unit-train status, by size*, 1991

Item	Unit	Total sales group (million dollars)			
		\$15 or more		\$5-14.9	
		Unit-train	Other co-ops	Unit-train	Other co-ops
Size characteristics:					
Locations	Number	3.58	3.48	1.57	1.46
Storage capacity	Bushels	4,711,111	2,933,391	1,749,757	1,247,522
Grain sold	Bushels	7,563,483	5,166,472	2,688,360	2,008,321
Turnover rate	Times	1.61	1.76	1.54	1.61
Unit-trains	Number	1.59	—	1.04	—
Employees ¹	Number	37.56	37.01	11.71	11.17
Income statement items:					
Grain sales	Dollars	22,783,883	16,813,921	8,492,484	6,389,724
Farm supply sales	Dollars	7,480,883	7,366,184	1,963,331	2,080,854
Total	Dollars	30,264,766	24,180,105	10,455,815	8,470,578
Cost of sales	Dollars	28,355,436	22,359,792	9,911,514	7,947,478
Margins on sales	Dollars	1,909,330	1,820,313	544,301	523,100
Other oper. income	Dollars	1,077,724	914,731	388,556	333,372
Nonoper. income	Dollars	191,526	70,421	90,539	60,313
Gross income	Dollars	3,178,580	2,805,465	1,023,396	916,785
Labor expenses	Dollars	1,134,447	1,117,261	357,174	325,981
Other expenses	Dollars	1,468,038	1,272,143	457,672	412,571
Total	Dollars	2,602,485	2,389,404	814,846	738,552
NET SAVINGS²	Dollars	576,095	416,061	208,550	178,233
Relationships:					
Gross income/\$ expense	Dollars	1.22	1.17	1.26	1.24
Total sales/\$ assets	Dollars	2.77	3.34	2.94	2.90
Total sales/\$ labor exp.	Dollars	26.68	21.64	29.27	25.98
Total sales/employee	Dollars	805.788	653.324	892,570	758,140
Margins of total sales	Percent	6.31	7.53	5.21	6.18
Net savings of equity	Percent	11.04	10.49	9.86	10.10
Grain of total sales	Percent	75.3	69.5	81.2	75.4
Labor of total expenses	Percent	43.6	46.8	43.8	44.1

¹Size based on total sales for FY 1991.

²Full-time equivalent.

³Savings before income taxes and allocations.

Appendix B Table **2-Selected balance sheet data for corn-soybean first-handlers-of-grain cooperatives, by unit-train status, by size*, 1991**

Item	Unit	Total sales group (million dollars)			
		\$15 or more		\$5-14.9	
		Unit-train	Other co-ops	Unit-train	Other co-ops
Current assets	Dollars	6,182,940	3,707,816	1,780,631	1,485,287
Investments	Dollars	1,623,663	1,114,293	575,304	503,999
Fixed assets	Dollars	3,086,941	2,381,688	1,189,565	920,095
Other assets	Dollars	<u>30,394</u>	<u>26,923</u>	<u>14,448</u>	<u>9,000</u>
Total	Dollars	10,923,938	7,230,720	3,559,948	2,918,381
Current liabilities	Dollars	4,999,523	2,710,411	1,216,808	1,014,579
Long-term liab.	Dollars	705,699	553,603	227,875	138,961
Equity	Dollars	<u>5,218,716</u>	<u>3,966,706</u>	<u>2,115,265</u>	<u>1,764,841</u>
Total	Dollars	10,923,938	7,230,720	3,559,948	2,918,381
Working capital	Dollars	1,183,417	997,405	563,823	470,708
Total debt	Dollars	1,799,436	1,474,583	527,118	459,229
Ratios:					
Current	Number	1.24	1.37	1.46	1.46
Liab./equity	Number	1.09	0.82	0.68	0.65
Equity/total assets	Number	0.48	0.55	0.59	0.60
Debt/total assets	Number	0.16	0.20	0.15	0.16
Debt/equity	Number	0.34	0.37	0.25	0.26

*Size based on total sales for FY 1991.

Appendix C

Appendix C Table 1 -**Selected operating statement cost and income data, by size*, corn-soybean first-handlers-of-grain cooperatives, 1989**

Cost/income item	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9			
	Dollars	Percent	Dollars	Percent	Dollars	Percent
EXPENSES:						
Labor	884,244	37.09	324,847	39.86	563,388	37.96
Facility	1,013,263	42.51	337,717	41.44	625,788	42.17
General/adm.	<u>172,426</u>	<u>7.23</u>	<u>71,921</u>	<u>8.82</u>	<u>114,779</u>	<u>7.74</u>
Subtotal	2,069,933	86.83	734,485	90.12	1,303,955	87.87
Interest	<u>262,928</u>	<u>11.03</u>	<u>70,001</u>	<u>8.59</u>	<u>152,270</u>	<u>10.26</u>
Subtotal	2,332,861	97.86	804,486	98.71	1,456,225	98.13
Income taxes	<u>50,941</u>	<u>2.14</u>	<u>10,559</u>	<u>1.29</u>	<u>27,779</u>	<u>1.87</u>
Total	2,383,802	100.00	815,045	100.00	1,484,004	100.00
INCOME/SALES:						
Gross income	2,861,169		942,357		1,760,589	
Per \$ exp. ¹	1.23		1.17		1.21	
Net savings	477,367		127,312		276,584	
Of sales		1.63		1.36		1.55
Total sales	29,368,038		9,345,050		17,883,381	
Per \$ exp. ¹		12.59		11.62		12.28
Grain sales	23,161,416		7,331,957		14,082,056	
Of total		78.87		78.46		78.74
Price/bu. ²	3.49		3.71		3.55	
Bushels sold	6,635,245		1,975,639		3,962,618	
Bushels storage	4,288,056		1,414,301		2,639,746	
Turnover rate ³		1.55		1.4		1.5

* Size based on cooperative total sales for FY 1989.

¹ Includes interest paid; excludes Federal/state income taxes paid.

² Weighted average price per bushel received for all grain sold.

³ Ratio of bushels grain sold to bushels grain storage capacity.

Appendix C Table **2-Total operating costs, by major cost category, by size*, corn-soybean first-handler grain cooperatives, 1989**

Cost category	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9			
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	884,244	37.90	324,847	40.38	563,388	38.69
Facility	1,013,263	43.44	337,717	41.98	625,788	42.97
General/adm.	172,426	7.39	71,921	8.94	114,779	7.88
Subtotal	2,069,933	88.73	734,485	91.30	1,303,955	89.54
interest	262,928	11.27	70,001	8.70	152,270	10.46
Total	2,332,861	100.00	804,486	100.00	1,456,225	100.00

*Size based on cooperative total sales for FY 1989.

Appendix C Table **3-Total operating costs, by major cost category, by size*, corn-soybean first-handler grain cooperatives, 1989**

Cost category	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9			
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Labor	884,244	42.72	324,847	44.23	563,388	43.21
Facility	1,013,263	48.95	337,717	45.98	625,788	47.99
General/adm.	172,426	8.33	71,921	9.79	114,779	8.80
Total ¹	2,069,933	100.00	734,485	100.00	1,303,955	100.00

* Size based on cooperative total sales for FY 1989.

¹ Excludes interest paid.

Appendix C Table 4—**Labor/labor-related cost, by cost category, by size*, corn-soybean first-handler grain cooperatives, 1989**

Cost category	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9			
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Wages/salaries	745,798	84.34	272,417	83.86	474,279	84.18
Benefits	75,262	8.51	28,834	8.88	48,632	8.63
Taxes	63,184	7.15	23,596	7.26	40,478	7.19
Total	884,244	100.00	324,847	100.00	563,389	100.00

*Size based on cooperative total sales for FY 1989.

Appendix C Table 5—**Facility operating cost, by cost category, by size*, corn-soybean first-handler grain cooperatives, 1989**

Cost category	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9			
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Repairs	146,212	14.43	37,694	11.16	83,969	13.42
TrucWtrac./auto	109,618	10.82	36,393	10.78	67,618	10.81
Dryer fuel	10,405	1.03	6,812	2.02	8,344	1.33
Plant supplies	21,897	2.16	7,224	2.14	13,481	2.15
Grain weighing	7,950	0.78	1,863	0.55	4,459	0.71
Pest treatment	592	0.06	282	0.08	415	0.07
Nongrain testing	477	0.05	422	0.12	445	0.07
Licenses/fees	3,736	0.37	2,676	0.79	3,128	0.50
Insurance	104,069	10.27	44,571	13.20	69,943	11.18
Taxes	89,709	8.85	32,841	9.72	57,091	9.12
Utilities	98,689	9.74	30,794	9.12	59,747	9.55
Telephone	15,668	1.55	4,429	1.31	9,222	1.47
Rents/leases	37,327	3.68	6,387	1.89	19,581	3.13
Misc.	6,425	0.63	2,432	0.72	4,135	0.66
Depreciation	360,488	35.58	122,896	36.39	224,211	35.83
Total	1,013,263	100.00	337,717	100.00	625,788	100.00

*Size based on cooperative total sales for FY 1989.

Appendix C Table 6—**General/admin. operating cost, by cost category, by size*, corn-soybean first-handler grain cooperatives, 1989**

Cost category	Total sales group (million dollars)				All cooperatives	
	\$15 or more		\$5-14.9		Dollars	Percent
	Dollars	Percent	Dollars	Percent	Dollars	Percent
Directors fees	5,803	3.37	2,716	3.78	4,032	3.51
Bookkeeping			128	0.18	73	0.06
Legal	1,233	0.72	186	0.26	632	0.55
Prof. services	24,527	14.22	12,681	17.63	17,733	15.45
Data processing	11,677	6.77	5,271	7.33	8,003	6.97
Office supplies	31,070	18.02	12,720	17.69	20,545	17.90
Advertising	25,265	14.65	10,151	14.11	16,596	14.46
Dues/subscriptions	5,769	3.35	2,291	3.19	3,774	3.29
Meetings/travel	16,456	9.54	6,780	9.43	10,906	9.50
Annual meeting			8	0.01	4	0.00
Public relations	1,870	1.08	845	1.17	1,282	1.12
Bad debt	9,924	5.76	5,709	7.94	7,506	6.54
Electron. services	1,996	1.16	892	1.24	1,363	1.19
Misc. services	4,135	2.40	915	1.27	2,288	1.99
Misc. taxes	228	0.13	402	0.56	328	0.29
Bank charges	92	0.05	105	0.15	100	0.09
Miscellaneous	<u>32,381</u>	<u>18.78</u>	<u>10,121</u>	<u>14.07</u>	<u>19,613</u>	<u>17.09</u>
Total	172,426	100.00	71,921	100.00	114,779	100.00

*Size based on cooperative total sales for FY 1989.

**U.S. Department of Agriculture
Agricultural Cooperative Service**

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Agricultural Cooperative Service (ACS) provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The agency (1) helps farmers and other rural residents develop cooperatives to obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

ACS publishes research and educational materials and issues *Farmer Cooperatives* magazine. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, age, marital status, handicap, or national origin.