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Structural Change in the Dairy Cooperative Sector, 1992-2000



Abstract

There was a net decline of 52 U.S. dairy cooperatives between 1992 and 2000. Eighty-four cooperatives went out of existence via dissolution, merger, acquisition, or by reducing dairy to a minor share in their operations. During this same period, 32 new dairy cooperatives were formed, either by new groups of producers or by consolidation of existing cooperatives. Structure of the dairy cooperatives sector headed in two divergent directions. Some cooperatives became more vertically integrated (engaging in further manufacturing and processing, differentiating their products and strengthening ties in the marketing chain). In contrast, others focused their operations on bargaining only.

Key Words: Cooperatives, milk marketing, milk, structure, vertical integration.

Structural Change in the Dairy Cooperative Sector, 1992-2000

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Top two photos courtesy Agri-Mark; bottom cover photo courtesy
Land O'Lakes

Preface

Information for this report came primarily from data collected from annual surveys of U.S. dairy cooperatives conducted by the Rural Business-Cooperative Service (RBS). Supplemental information came from industry literature—magazines, newspapers, newsletters, and web-sites—and industry experts. A cooperative was considered a dairy cooperative if 50 percent or more of its total sales came from the sale of milk and dairy products. Thus, some cooperatives that handled milk for their members, but had greater activity in other enterprises such as supplies or feed, were not included in this study.

Dairy cooperatives' size categories at the beginning of the period were determined by an RBS survey of U.S. dairy cooperatives conducted in 1993 for 1992 milk volumes. Likewise, the size categories for the end of the period were based on a 1998 survey for 1997 data. However, for cooperatives formed after 1997, their milk volumes were based on the most current available information.

Some of the dates that cooperatives went out of business were unavailable. The date of exit was then based on the available information. In addition, financial information on the exiting dairy cooperatives was incomplete. However, the information available gives a glimpse of some cooperatives' financial conditions at the time of their exit.

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Highlights

Structural adjustment between 1992 and 2000 shows U.S. dairy cooperatives diverging in the way they represent members in the marketplace. Some cooperatives became more vertically integrated (engaging in further manufacturing and processing, differentiating their products and strengthening ties in the marketing chain). In contrast, others focused their operations solely on bargaining for milk prices and negotiating terms of trade for members' raw milk.

Bargaining cooperatives, the least vertically integrated, increased their share of total cooperative numbers and showed a relatively low rate of net decline. On the other hand, many diversified cooperatives became part of newly merged entities. These new, large diversified cooperatives were more vertically coordinated than the other operating types of dairy cooperatives. Some of the diversified cooperatives had national reach, having attained both horizontal and vertical integration.

Between 1992 and 2000, 84 of the Nation's dairy cooperatives went out of existence, through dissolution (36), merger with another dairy cooperative (36), acquisition by another dairy firm (8), or by reducing dairy to a minor share in cooperative operations (4). During this same period, 32 new dairy cooperatives were formed, either by new groups of producers (26) or by consolidation of existing cooperatives (6). Thus, 52 dairy cooperatives in the United States disappeared between 1992 and 2000. More exits occurred during the earlier part of the 9-year period, while entries were more frequent during the latter part.

In 1992, 34 States contained one or more dairy cooperative headquarters. By 2000, 28 States had lost one or more dairy cooperatives while just 12 States gained newly formed dairy cooperatives, leaving 29 States with dairy cooperative headquarters. All regions showed a net loss in number of cooperatives headquartered in their area.

There was a net decline of 22 bargaining dairy cooperatives. The number of manufacturing/processing dairy cooperatives shrunk by a net of 30 cooperatives, more than twice the rate of bargaining cooperatives.

The distribution of dairy cooperatives according to size in 2000 was similar to 1992. However, small cooperatives--with the lowest rate of decline of the three size groups--increased their representation of total cooperative numbers.

Cooperatives that dissolved were most likely to be small, bargaining cooperatives that went out of business by the end of 1996. In contrast, one-half of the cooperatives that exited by merging into another cooperative were medium- or large-sized manufacturing-processing cooperatives. Half of the cooperative mergers took place in the last 3 years of the 9-year period.

None of the six new cooperatives formed by a merger of existing dairy cooperatives was small. They were evenly split between the bargaining and manufacturing-processing types. In contrast, those formed by new groups of producers were predominately small, bargaining cooperatives, and formed after 1996.

Structural Change in the Dairy Cooperative Sector, 1992-2000

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Introduction

As the 20th century drew to a close, the dairy industry continued to adapt to dynamic market conditions. There were advances in production technology, both on the farm and in the milk plant, consolidation and growth of retail food chains, vertical and horizontal integration in milk manufacturing/processing sectors, changes in trade rules and practices, changes in Government programs, and unprecedented swings in the price of raw milk (fig. 1).

Agriculture and agribusiness are characterized by increasing size and productivity of production units and reduction in the number of production plants. Likewise, total milk production has continued to grow for the past quarter century despite declining milk cow and dairy farm numbers (fig.2). Dairy cooperatives have followed a similar pattern—fewer cooperatives handling a larger milk volume (fig.3).

The waning years of the past century and the opening of the new century saw a wave of rapid consolidation in the dairy sector. For example, Suiza Foods Corporation entered the dairy sector at the end of 1993, became a publicly-traded stock firm in 1996, and by 2000 had acquired 39 dairy firms, becoming the largest U.S. manufacturer and distributor of dairy products (Dairy Foods Online, Suiza Foods Corporation).

Simultaneously, the top four grocery retailers' market share rose from 16 percent of food retail sales in 1992 to 29 percent in 1998. Most of this growth occurred after 1996. The 20 largest retailers' market share, 37 percent in 1992, reached 51 percent in 1999. This consolidation has had significant impact on grocery suppliers

such as wholesalers, manufacturers, and farmers—all of which are represented in the dairy cooperative sector (Kaufman).

To adapt to these changes, dairy cooperatives have also consolidated. In 1998, four major dairy cooperatives combined to create a new cooperative, Dairy Farmers of America (DFA). DFA is national in scope, having 19,500 dairy producers spread across 45 States. Around the same time, Land O'Lakes, based in Minnesota, merged with dairy cooperatives on East and West coasts and it too became nationwide. This report examines the changes in the U.S. dairy cooperative sector, and describes the structural changes that have occurred in the closing years of the 20th century—1992-2000.

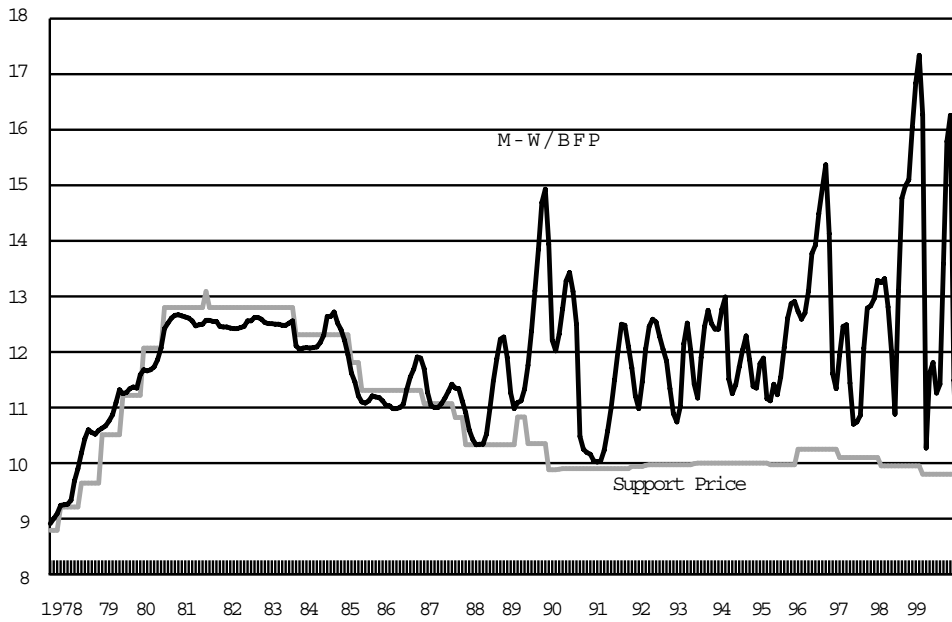
Overview

Overall, there were 52 fewer dairy cooperatives in 2000 than in 1992. However, a closer look reveals that 84 cooperatives went out of existence (by either dissolving, merging with another cooperative, being acquired by another dairy firm, or by reducing dairy to a minor share of their operations). New producer groups and mergers of existing cooperatives created 32 new cooperatives between 1992 and 2000 (table 1 and appendix tables 1 and 2). The largest net declines in dairy cooperative numbers occurred in 1993-95, and 56 had exited by the end of 1996. In 1997 and 2000, more new cooperatives formed than went out of existence, the only 2 years where the number of entries exceeded exits. And, 22 of the 32 new cooperatives were formed after 1996.

Coincidentally, 36 cooperatives dissolved—leaving no successor organization—while 36 merged with other dairy cooperatives (table 2). Twenty-six of these

Figure 1—Minnesota-Wisconsin (MW) basic formula prices and support price, 1978-99 (M-W to May 1995; BFP to Dec. 1999)

Dollars per cwt



Source: Dairy Market News, USDA selected issues

Figure 2—U.S. dairy cow numbers, milk production and number of operations with milk cows, 1964-99

Thousand

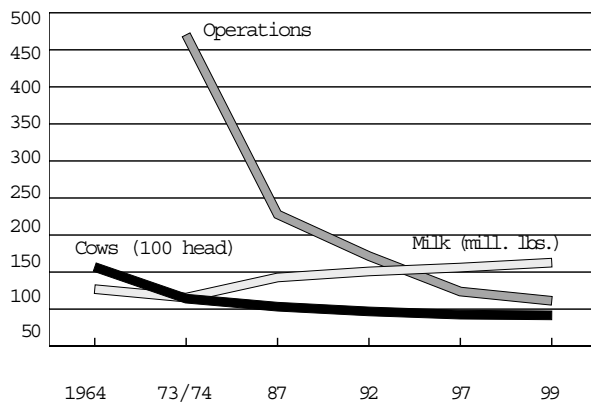


Figure 3—Trends in dairy cooperative numbers and milk volume handled, 1964-97

Number/billion pounds

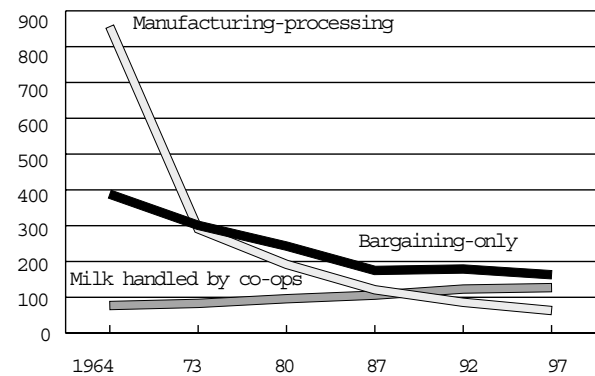


Table 1-Change in cooperative numbers since 1992.

	1992	Exits	Entries	Net change	Percent of	2000
	(No.)	(No.)	(No.)	(No.)	(%)	(No.)
Cooperatives	265	84	32	-52	-19.6	213
		Exits (No.)	Entries (No.)	Net change (No.)		
Year of exit or entry:						
1992		8	3	-5		
1993		13	2	-11		
1994		11	1	-10		
1995		17	2	-15		
1996		7	2	-5		
1997		3	8	5		
1998		12	7	-5		
1999		11	3	-8		
2000		2	4	2		
		84	32	-52		

Table 2-What happened to the 84 cooperatives exiting between 1992 and 2000?

	Number	Percent ¹
Action:		
Merged into another dairy cooperative	36	42.9
Acquired by an investor-owned dairy firm	8	9.5
Reduced dairy's role to minor share of operations	4	4.8
Dissolved or out of operation	36	42.9
Total, all dairy cooperative exits	84	100.0

¹ Total may not add due to rounding.

merged and eventually became part of six new cooperatives. Ten combined with an ongoing cooperative. Combinations occurred for various reasons--to take advantage of economies of scale; to better configure and use a system of manufacturing plants; to reduce operating overhead; to foster marketing clout; and to secure milk supplies. Overlapping milk pickup routes were often eliminated. Cooperative mergers reflected the pace of consolidation in the retail sector. The merged cooperatives were better able to supply their customers' larger volume and product requirements.

Eight of the exiting cooperatives were acquired by investor-owned dairy firms (IOF). Four coopera-

tives moved the focus of their operations away from the dairy business to other farm business such as feed or supplies to the point where dairy sales accounted for less than 50 percent of their total income.

New groups of producers created 26 of the 32 new cooperatives organized between 1992 and 2000 (table 3). (Six new cooperatives were formed by consolidation of existing dairy cooperatives.) Some of these 26 new cooperatives were started to add value to their members' milk by making products for market niches. Others may have been formed when dissatisfied members split from existing cooperatives. Some of

Table 3-Origin of dairy cooperatives formed between 1992 and 2000.

	Number	Percent
Source:		
Merger of existing cooperatives	6	18.7
New group of producers	26	81.3
Total, all new dairy cooperatives	32	100.0

this dissatisfaction was disagreement with a vote to merge. A few were successors to cooperatives that had gone out of business for a time.

Location of Headquarters

By region – Looking at 9 years of changes, the number of cooperatives headquartered in each region declined (see map and table 4). The distribution of cooperative headquarters among the regions did not change substantially.

The East North Central and West North Central regions had the largest net declines in dairy cooperatives (14 and 18, respectively), while the South Central had a net loss of just 1. The South Atlantic region's loss of six dairy cooperatives represented a decline of 50 percent from 1992, the largest percentage decrease of any region. Conversely, although the North Atlantic was fairly active compared with other regions, its net loss of seven cooperatives was far below the other regions on a percentage basis (7.4 percent). As a result, the region increased its share of the Nation's dairy cooperatives by nearly 6 percentage points, the only region to show an increase.

By State– In 1992, 34 States had one or more dairy cooperatives headquartered within their boundaries (appendix table 3). By 2000, 28 States had lost one or more dairy cooperatives while 12 others gained new dairy cooperatives, leaving 29 States with dairy cooperative headquarters.

New Mexico was the only state to gain new dairy cooperatives (3) where none had previously existed. Texas was the only other State to show an increase. Conversely, six States no longer held any dairy cooperative headquarters (Colorado, Indiana, Louisiana, Mississippi, Utah, and West Virginia).

Overall, there was no change in the rankings of the top six States in terms of number of dairy cooperative headquarters--New York, Minnesota, Wisconsin, Pennsylvania, California, and Iowa (in that order) had the most dairy cooperative headquarters both in 1992 and in 2000.

Characteristics of Dairy Cooperatives

Dairy cooperatives can be broadly grouped into two categories– manufacturing-processing and bargaining. Manufacturing-processing cooperatives attempt to enhance their bargaining position and to add value to their members' milk by processing or manufacturing a portion of their raw milk into a variety of dairy products. Manufacturing-processing cooperatives handle the bulk of the milk (75.9 percent of

total milk handled by cooperatives in 1997) and account for 93.9 percent of the assets used by dairy cooperatives (appendix table 4).

Bargaining cooperatives negotiate prices and terms of trade for members' raw milk but do not operate plants (although some may operate receiving stations). They use just 6.1 percent of all dairy cooperative assets to market members' milk. Bargaining cooperatives are the most numerous of U.S. dairy cooperatives.

Adjustment by type– In addition to the 48 exits and 21 entries of bargaining cooperatives, 5 cooperatives ceased to operate manufacturing plants and focused solely on bargaining and member services (table 5). Thus, there was a net decline of 22 bargaining cooperatives between 1992 and 2000.

Manufacturing/processing cooperative numbers shrunk by a net of 30 cooperatives, but this was more than twice the rate of bargaining cooperatives. As a result, bargaining cooperatives grew from 67.5 percent of U.S. dairy cooperative numbers in 1992 to 73.7 percent in 2000.

Adjustment by size– Dairy cooperatives were grouped according to the net volume of milk they handled annually (table 6). In addition to entries and exits, some ongoing cooperatives, by increasing or decreasing the volume of milk they handled, changed size categories during the 9-year period. Small dairy cooperatives (handled less than 50 million pounds of milk per year) had the largest number of entries and exits among the three size groups and shrunk by 26 cooperatives. Medium cooperatives (handled 50 to 999 million pounds of milk annually) lost a net of 20 cooperatives, and large cooperatives (1 billion pounds of milk or more) had a net loss of only 7 cooperatives. Yet, one-half of the large dairy cooperatives in 1992 had exited by 2000.

The distribution of dairy cooperatives according to size in 2000 was similar to the 1992 pattern. However, small cooperatives with the lowest rate of decline (-16.8 percent) of the three size groups increased their representation of total cooperative numbers to 60.6 percent.

Characteristics of exiting cooperatives– Most of the cooperatives that dissolved were small (86.1 percent) in contrast with those that merged into another dairy cooperative, where just 22.2 percent were small (table 7). All of the large cooperatives that exited between 1992 and 2000 did so by merging. Six of the eight cooperatives acquired by an IOF were small and all 4 of the cooperatives that exited by refocusing operations were small.

MAP--Number of Dairy Cooperatives Between 1992 and 2000 by Headquarters Region, 1997

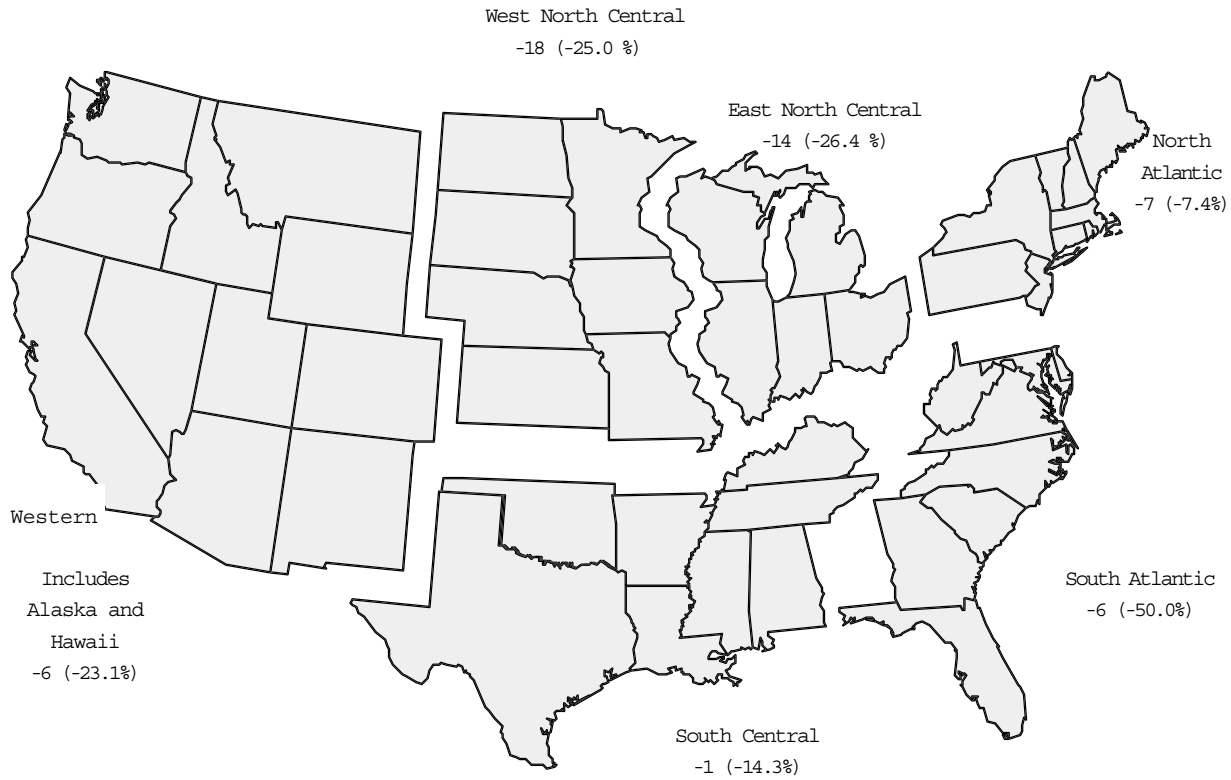


Table 4--Distribution of entering and exiting dairy cooperatives' headquarters.

Region	1992		Exits No.	Entries No.	Net Change		2000	
	No.	%			No.	No.	% of '92	No.
North Atlantic	95	35.8	17	10	-7	-7.4	88	41.3
East North Central	53	20.0	20	6	-14	-26.4	39	18.3
West North Central	72	27.2	23	5	-18	-25.0	55	25.8
South Atlantic	12	4.5	8	2	-6	-50.0	6	2.8
South Central	7	2.6	4	3	-1	-14.3	5	2.3
Western	26	9.8	12	6	-6	-23.1	20	9.4
Total	265	100.0	84	32	-52	-19.6	213	100.0

Note: Associated Milk Producers, Inc. (AMPI) split, with the Southern region merging to form Dairy Farmers of America (DFA) while the North Central region of AMPI remained in business as AMPI. AMPI's headquarters are now located in the West North Central region rather than the South Central as they were in 1992.

Table 5—Distribution of dairy cooperatives, exits and entries 1992-2000, by type.

Type of cooperative	1992		Exits No.	Entries No.	Type change ¹		Net change No.	2000	
	No.	%			No.	No.		No.	% of '92 by type
Bargaining	179	67.5	48	21	+5	-22	-12.3	157	73.7
Manufacturing-processing	86	32.5	36	11	-5	-30	-34.9	56	26.3
Totals	265	100.0	84	32	0	-52	-19.6	213	100.0

¹ Between 1992 and 2000, five cooperatives remained in operation but changed from manufacturing to bargaining cooperatives, and are not

Table 6—Distribution of dairy cooperatives, exits and entries 1992-2000, by size.

Size of cooperative	1992		Exits No.	Entries No.	Size changes (net) ¹		Net change No.	2000	
	No.	%			No.	No.		No.	% of '92 by size
Small ²	155	58.5	49	16	+ 7	-26	-16.8	129	60.6
Medium ³	80	30.2	20	10	-10	-20	-25.0	60	28.2
Large ⁴	30	11.3	15	5	+ 3	-7	-23.3	23	10.8
Total ⁵	265	100.0	84	32	0	-52	-19.6	213	100.0

¹ 20 cooperatives operating in both 1992 and 2000 changed size category—12 handled smaller and 8 handled larger milk volumes. Those that shrunk tended to be bargaining cooperatives and those that grew tended to be manufacturing/processing.

² Handled less than 50 million pounds of milk per year.

³ Handled 50 to 999 million pounds of milk per year.

⁴ Handled 1 billion or more pounds of milk per year.

⁵ Could not confirm the volume handled by one of the new cooperatives; totals may not add.

NOTE: Size category for the exiting cooperatives was determined by either their 1992 or 1997 milk volume, depending upon when they exited. Size category for entering cooperatives was determined by either their 1997 milk volume, or if formed after 1997, by volume reported in industry news. Year 2000 size category was determined by 1997 milk volume, except for cooperatives formed after 1997.

Table 7—Comparison of dairy cooperatives that exited between 1992 and 2000, by size of exiting cooperative.

Size:	Dairy cooperatives that :							
	Dissolved		Merged into another dairy cooperative		Were acquired by dairy IOF		Reduced dairy's role to minor share of operations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Small ¹	31	86.1	8	22.2	6	75.0	4	100.0
Medium ²	5	13.9	13	36.1	2	25.0	0	0.0
Large ³	0	0.0	15	41.7	0	0.0	0	0.0
Total	36	100.0	36	100.0	8	100.0	4	100.0

¹ Handled less than 50 million pounds of milk per year.

² Handled 50 to 999 million pounds of milk per year.

³ Handled 1 billion or more pounds of milk per year.

Those that dissolved were often bargaining cooperatives (77.8 percent). Likewise, three of the four cooperatives no longer classified as dairy cooperatives had been bargaining cooperatives (table 7A). In contrast, 58.3 percent of those that merged were manufacturing-processing cooperatives. Similarly, the cooperatives acquired by dairy IOFs were mostly manufacturing-processing cooperatives.

Many of the cooperatives that dissolved (86.1 percent) had gone out of business by the end of 1996. Seven of the eight acquisitions by IOFs were completed by then as well. One-half of the cooperative merg-

ers took place during the last 3 years of the 9-year period (table 7B). Those reducing dairy to a minor share of their operations did so throughout the period.

Headquarters of the cooperatives that dissolved were clustered in the North Atlantic, and East North Central and West North Central regions (table 7C). Cooperatives that exited through merger with another dairy cooperative were headquartered in each region. One-half of those acquired by other dairy firms were headquartered in the North Atlantic. Three of the four that reduced dairy to a minor share of their operations were headquartered in the West North Central region.

Table 7A—Comparison of dairy cooperatives that exited between 1992 and 2000, by type of exiting cooperative.

Type:	Dairy cooperatives that :							
	Dissolved		Merged into another dairy cooperative		Were acquired by dairy IOF		Reduced dairy's role to minor share of operations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Bargaining	28	77.8	15	41.7	2	25.0	3	75.0
Manufacturing/ processing	8	22.2	21	58.3	6	75.0	1	25.0
Total	36	100.0	36	100.0	8	100.0	4	100.0

Table 7B—Comparison of dairy cooperatives that exited between 1992 and 2000, by year of exit.

Year:	Dairy cooperatives that :							
	Dissolved		Merged into another dairy cooperative		Were acquired by dairy IOF		Reduced dairy's role to minor share operations	
	Number	Cumulative Percent	Number	Cumulative Percent	Number	Cumulative Percent	Number	Cumulative Percent
1992	4	11.1	1	2.8	2	25.0	1	25.0
1993	10	38.9	2	8.3	1	37.5	0	25.0
1994	2	44.4	6	25.0	2	62.5	1	50.0
1995	10	72.2	6	41.7	1	75.0	0	50.0
1996	5	86.1	1	44.4	1	87.5	0	50.0
1997	0	86.1	2	50.0	0	87.5	1	75.0
1998	4	97.2	7	69.4	0	87.5	1	100.0
1999	1	100.0	9	94.4	1	100.0	0	100.0
2000	0	100.0	2	100.0	0	100.0	0	100.0
Total	36	100.0	36	100.0	8	100.0	4	100.0

Table 7C--Comparison of dairy cooperatives that exited between 1992 and 2000, by location of exiting cooperatives' headquarters.

Region:	Dairy cooperatives that :							
	Dissolved		Merged into another dairy cooperative		Were acquired by dairy IOF		Reduced dairy's role to minor share of operations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
North Atlantic	10	27.8	3	8.3	4	50.0	0	0.0
East North Central	10	27.8	8	22.2	2	25.0	0	0.0
West North Central	11	30.6	8	22.2	1	12.5	3	75.0
South Atlantic	1	2.8	6	16.7	1	12.5	0	0.0
South Central	0	0.0	4	11.1	0	0.0	0	0.0
Western	4	11.1	7	19.4	0	0.0	1	25.0
Total	36	100.0	36	100.0	8	100.0	4	100.0

Information on the cooperatives' financial status was found for about 44 percent of the cooperatives that exited between 1992 and 2000. While the data is incomplete, it is interesting to note that a higher percentage of cooperatives that dissolved (67 percent) showed signs of poor financial health compared with cooperatives that merged (50 percent, table 7D). And, financial statements of five (31 percent) merging cooperatives showed them to be healthy compared with just two (11 percent) of those that dissolved.

Characteristics of new cooperatives-- None of the six new cooperatives formed by merger were small (table 8). These new cooperatives represented equally the two operating types (table 8A). Four were formed in 1998 and 1999 (table 8B). One-half were headquartered in the West North Central region (table 8C). The location of a cooperative's headquarters loses some of its significance given nationwide memberships.

Sixteen of the 26 cooperatives formed by new groups of producers were small and 18 offered only bargaining services. Twenty of this group were formed

Table 7D--Comparison of dairy cooperatives that exited between 1992 and 2000, by "financial status" of exiting cooperative.

"Financial status":	Dairy cooperatives that :							
	Dissolved		Merged into another dairy cooperative		Were acquired by dairy IOF		Reduced dairy's role to minor share of operations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Neutral ¹	4	22	3	19	0	0	0	0
Poor/declining ²	12	67	8	50	1	50	0	0
Positive	2	11	5	31	1	50	1	100
Total	18	100	16	100	2	100	1	100

¹ Nothing notable in one year's data.

² One or more of the following in the last year(s) of operation: negative net margins, declining assets and/or net worth, negative net worth.

Table 8—Comparison of dairy cooperatives formed between 1992-2000, by size of new cooperative.

	Cooperatives formed by...			
	New producer groups		Merger of existing cooperatives	
	Number ¹	Percent	Number	Percent
Size:				
Small ²	16	61.5	0	0.0
Medium ³	8	30.8	2	33.3
Large ⁴	1	3.8	4	66.7
Total	26	100.0	6	100.0

¹ Could not confirm the volume handled by one of the new cooperatives.

² Handled less than 50 million pounds of milk per year.

³ Handled 50 to 999 million pounds of milk per year.

⁴ Handled 1 billion or more pounds of milk per year.

Table 8B—Comparison of dairy cooperatives formed between 1992-2000, by year of formation.

	Cooperatives formed by...			
	New producer groups		Merger of existing cooperatives	
	Number ¹	Cumulative Percent	Number	Cumulative Percent
Year:				
1992	2	7.7	1	16.7
1993	2	15.4	0	16.7
1994	1	19.2	0	16.7
1995	1	23.1	1	33.3
1996	2	30.8	0	33.3
1997	8	61.5	0	33.3
1998	4	76.9	3	83.3
1999	2	84.6	1	100.0
2000	4	100.0	0	100.0
Total	26	100.0	6	100.0

after 1996. Many were formed by new groups of producers in the North Atlantic region (38.5 percent). This reflects a common practice among small groups of producers to form bargaining cooperatives that are flexible in finding market niches.

Table 8A—Comparison of dairy cooperatives formed between 1992-2000, by type of new cooperative.

	Cooperatives formed by...			
	New producer groups		Merger of existing cooperatives	
	Number ¹	Percent	Number	Percent
Type:				
Bargaining	18	69.2	3	50.0
Manufacturing/ processing	8	30.8	3	50.0
Total	26	100.0	6	100.0

Table 8C—Comparison of dairy cooperatives formed between 1992-2000, by location of new cooperatives' headquarters.

	Cooperatives formed by...			
	New producer groups		Merger of existing cooperatives	
	Number ¹	Percent	Number	Percent
Region:				
North Atlantic	10	38.5	0	0.0
East North Central	5	19.2	1	16.7
West North Central	2	7.7	3	50.0
South Atlantic	1	3.8	1	16.7
South Central	3	11.5	0	0.0
Western	5	19.2	1	16.7
Total	26	100.0	6	100.0

Cooperative Operations and Change

The nature of change within the dairy cooperative sector can be more fully captured by grouping them further according to the functions they perform in the market. Manufacturing-processing cooperatives can be further subdivided according to their degree of integration into the marketplace, from least to most fully vertically integrated—bargaining-balancing cooperatives, hard product manufacturing cooperatives, branded-cheese cooperatives, fluid processing cooperatives, and diversified cooperatives (see page 15). The changes seen between 1992 and 2000 show dairy cooperatives heading in divergent directions. Some cooper-

atives became more vertically integrated (engaging in further manufacturing and processing, differentiating their products and strengthening ties in the marketing chain). In contrast, others focused their operations on bargaining only.

First Level Coordination

More bargaining dairy cooperatives were formed and exited than any other type (table 9). The minimal financial commitment required to form a bargaining cooperative contributes to their ease of forming and dissolving. A majority (58.3 percent) of these cooperatives that exited had dissolved, the highest proportion among the 6 types of cooperatives. One-half of those exiting were small and dissolved (table 10). The few large ones that exited merged with other dairy cooperatives.

Bargaining cooperatives continue to play an important role in providing producers a voice in the marketplace—negotiating milk price and terms of trade, ensuring the accuracy of weights and tests in computing producer milk checks, and providing representation in government policy matters. Their challenge is to maintain a large enough membership so they can be heard in the marketplace and limit service costs.

Increasing Market Coordination

Use of plants solely for balancing purposes is declining, as evidenced by the 53.3 percent reduction in the number of bargaining-balancing cooperatives between 1992 and 2000. In addition, two bargaining-balancing cooperatives shut down or sold their plants to continue as bargaining cooperatives. No new cooperatives were formed that operated plants just for balancing purposes. Thus, 18 out of the 30 bargaining-balancing cooperatives (60 percent) operating in 1992 were not operating as such in 2000 (appendix table 6).

Maintaining small, old balancing plants is costly, but building new, large-scale plants is expensive, particularly for the small bargaining-balancing cooperatives. The six of those that dissolved or were acquired by an IOF were small. Alternatively, most of the 10 bargaining-balancing cooperatives that merged with diversified dairy cooperatives were medium or large.

Hard-product manufacturing cooperatives aim to operate their plants at full capacity to achieve low per-unit manufacturing costs. These cooperatives faced greater financial risk because most of their member milk was committed to making low-margin commodity products. Their limited flexibility left them more vulnerable to inventory losses arising from the volatile

milk prices of the 1990s than perhaps a more diversified product line would have been. These cooperatives appear to be under market pressure as they enter the 21st century. The number of hard-product manufacturing cooperative numbers shrunk by 40 percent and no new ones formed between 1992 and 2000. All of those exiting were large and merged with diversified cooperatives.

The merger of both bargaining-balancing and hard-product manufacturing cooperatives into diversified cooperatives reflects the trend of increased integration by dairy cooperatives. The plants formerly operated by bargaining-balancing or hard product manufacturing cooperatives were then incorporated into a larger system. Those that could not be operated efficiently were often shut down or sold.

Branded-cheese dairy cooperatives had the smallest percentage change between 1992 and 2000 (-12.0 percent) compared with the other types (appendix table 6). All of the seven new branded-cheese cooperatives were small, as were most of those exiting. Three small cooperatives continued to operate but sold their manufacturing operations to become bargaining cooperatives. A majority of those exiting dissolved. One merged with a diversified dairy cooperative and two were acquired by an IOF.

All of the exiting branded-cheese cooperatives for which information could be obtained showed poor financial status. These artisan cooperatives must compete with other cheesemakers on the basis of the quality and uniqueness of their product. They lack the size and scale to compete on price with the large commodity cheesemakers. (Almost by definition, there were no large branded-cheese cooperatives in 1992 or 2000.) These smaller cooperatives must find and develop a niche for their specialty product. For those unable to do so, the market is unforgiving. However, with the increasing consumer interest in "organic" and "farm-based" or local production, along with the continued consumer interest in specialty cheeses, a number of new cooperatives are entering this type of business.

Fluid processing cooperatives lost 42.9 percent of their 1992 numbers, but gained one small cooperative that formed in hope of capitalizing on a niche market for their locally produced milk (table 9). All of the fluid processing cooperatives either merged into another fluid or diversified cooperative or were acquired by an IOF. None went out of business. The mature, highly competitive fluid processing sector has seen the most consolidation by IOFs. One fluid pro-

Table 9—Characteristics of dairy cooperatives exiting or entering between 1992 and 2000, by type.

	Bargaining		Bargaining-balancing		Hard product manufacturing		Branded cheese		Fluid processing		Diversified	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Action of exiting cooperatives:												
Merged with B cooperative	6	12.5	1	6.3	0	0.0	0	0.0	0	0.0	0	0.0
Merged with B-B cooperative	0	0.0	1 ³	6.3	0	0.0	0	0.0	0	0.0	0	0.0
Merged with HPM cooperative	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Merged with B-C cooperative	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Merged with FP cooperative	0	0.0	0	0.0	0	0.0	0	0.0	1	33.3	0	0.0
Merged with D cooperative	9	18.8	8	50.0	2	100.0	1	14.3	1	33.3	6	75.0
Acquired by IOF	2	4.2	2	12.5	0	0.0	2	28.6	1	33.3	1	12.5
Reduced dairy's role to minor share of operations												
	3	6.3	0	0.0	0	0.0	0	0.0	0	0.0	1	12.5
Dissolved												
	28	58.3	4	25.0	0	0.0	4	57.1	0	0.0	0	0.0
<hr/>												
Total	48	100.0	16	100.0	2	100.0	7	100.0	3	100.0	8	100.0
Number exiting as a percent of cooperatives in 1992, by type:												
	26.8		53.3		40.0		28.0		42.9		42.1	
<hr/>												
	No.	%	No.	%			No.	%	No.	%	No.	%
"Financial status" of exiting cooperatives:												
Neutral ¹	6	28	1	12			0	0	0	0	0	0
Poor/declining ²	10	48	4	50			5	100	1	100	1	50
Positive	5	24	3	38			0	0	0	0	1	50
<hr/>												
Total	21	100	8	100			5	100	1	100	2	100
<hr/>												
	No.	%					No.	%	No.	%	No.	%
"Source" group of entering cooperatives:												
Merger of existing cooperatives	3	14.3					0	0.0	0	0.0	3	100.0
New producer groups	18	85.7					7	100.0	1	100.0	0	0.0
<hr/>												
Total	21	100.0					7	100.0	1	100.0	3	100.0
<hr/>												
Number entering as a percent of cooperatives in 2000, by type:												
	13.4		0.0		0.0		31.8		20.0		21.4	

¹ Nothing notable in one year's data. No further information obtained.

² One or more of the following in the last year(s) of operation: negative net margins, declining assets and/or net worth, negative net worth.

³ Subsequently, the successor cooperative merged with a diversified cooperative.

NOTE: B: Bargaining; B-B: Bargaining-balancing; HPM: Hard product manufacturing; B-C: Branded-cheese; FP: Fluid processing; D: Diversified; IOF: Independently-owned firm.

Table 10—Dairy cooperative exits by size and action, 1992-2000.

	Size			Total
	Small	Medium	Large	
	Percent			
Bargaining cooperatives that..				
dissolved	50.0	8.3	0.0	58.3
merged into another dairy cooperative	10.4	14.6	6.3	31.3
were acquired by an IOF	4.2	0.0	0.0	4.2
reduced dairy's role to minor share of operations	6.3	0.0	0.0	6.3
Total, bargaining cooperatives	70.8	22.9	6.3	100.0
Bargaining-balancing cooperatives that..				
dissolved	25.0	0.0	0.0	25.0
merged into another dairy cooperative	12.5	18.8	31.3	62.5
were acquired by an IOF	12.5	0.0	0.0	12.5
Total, bargaining-balancing cooperatives	50.0	18.8	31.3	100.0
Hard product mfg. cooperatives that..				
merged into another dairy cooperative	0.0	0.0	100.0	100.0
Total, hard product mfg. cooperatives	0.0	0.0	100.0	100.0
Branded-cheese cooperatives that..				
dissolved	42.9	14.3	0.0	57.1
merged into another dairy cooperative	14.3	0.0	0.0	14.3
were acquired by an IOF	28.6	0.0	0.0	28.6
Total, branded-cheese cooperatives	85.7	14.3	0.0	100.0
Fluid processing cooperatives that..				
merged into another dairy cooperative	0.0	66.7	0.0	66.7
were acquired by an IOF	0.0	33.3	0.0	33.3
Total, fluid processing cooperatives	0.0	100.0	0.0	100.0
Diversified cooperatives that..				
merged into another dairy cooperative	0.0	12.5	62.5	75.0
were acquired by an IOF	0.0	12.5	0.0	12.5
reduced dairy's role to minor share of operations	12.5	0.0	0.0	12.5
Total, diversified cooperatives	12.5	25.0	62.5	100.0

cessing cooperative, however, has been quite successful in meeting the challenge and grew between 1992 and 2000 (from the medium to large size category).

Diversified dairy cooperatives handle a majority of the milk volume of cooperatives. Most of those exiting merged with other diversified cooperatives, but none dissolved. The diversified cooperatives formed between 1992 and 2000 were all large, resulting from mergers between existing cooperatives. Some of the largest diversified cooperatives have national reach, representing horizontal and vertical integration. None of the diversified cooperatives operating in 2000 were small.

Summary and Conclusions

Merger and consolidation have typified the dairy cooperative sector in the 1990s. Much of the merger impetus was created by consolidation among food retailers looking to gain greater procurement efficiencies (Kaufman). The producer sector sought to hold its place at the bargaining table, meet customer needs, supply larger volume requirements, and meet product standards through mergers of their marketing cooperatives (Hanman, Cheese Market News). Most of the milk handled by cooperatives exiting and entering between 1992 and 2000 was accounted for by the merging cooperatives.

Also contributing to the merger activity was the increased ability to transport milk long distances due to improvements in trucking, milk quality, and milk handling and packaging technology. The increased merger activity in the last 3 years of the century may have, in part, resulted from dairy cooperatives anticipating and reacting to the consolidated market orders, which went into effect Jan. 1, 2000. Other factors included rapid advances in information technology (web sites, e-mail, computerized production, sales and inventory systems) which have greatly enhanced the reach of a cooperative's headquarters. The mergers expanded the geographical reach and countervailing market power of the surviving organizations. By 2000, some dairy cooperatives' memberships spanned multiple regions or even reached nationwide status.

The lower support price and continued volatility of milk and commodity dairy prices contributed to the exodus of cooperatives operating just balancing plants or just hard product manufacturing plants. Typically, these cooperatives consolidated with or into diversified cooperatives, where they gained flexibility in product mix and efficiency from a more rationalized

system of plants. Some plants were closed when they could not be used efficiently within the new system of plants. The closures alarmed some producers who had formerly shipped their milk to these local plants, even though their milk still had a marketing outlet with the cooperative.

Despite the headline-making consolidation taking place during the 1990s, other trends were afoot, such as the creation of new small- and medium-sized dairy cooperatives by producers seeking a new marketing avenue for their milk. Some may have formed when dairy farmers became uncomfortable, for various reasons, with their large organizations and sought alternatives to the "mega-cooperatives" for their marketing needs. Other producers made new efforts to capture marketing margins by focusing on a niche, perceived or real, such as "rBST-free," "organic," or "high quality." Most commonly, the product was specialty cheese, although a couple sought to process branded fluid milk.

While dairy cooperative numbers are declining, their milk volume has increased. Despite this overall trend, the number of small cooperatives as a group is maintaining, if not increasing, its share of dairy cooperative numbers as a whole, rising from 58.5 to 60.6 percent. Bargaining cooperatives are still the most common form of dairy cooperative in the United States although they handle less than one-quarter of the cooperative milk volume (based on 1997 volume). These were also the most common type formed between 1992 and 2000.

Thus, whether through consolidation or the formation of new dairy cooperatives, on large or small scale, dairy cooperatives appear to have taken two paths in marketing member milk. One path was vertical integration up the marketing chain in order to capture margins for their members. The other path was to less vertical integration focusing by and large on bargaining functions, sparing members the risk and expense of engaging in manufacturing and processing operations.

This report has documented the dynamics of the dairy cooperative sector at the end of the century. Joint venture activity between dairy cooperatives and between dairy cooperatives and IOFs has also been significant. For example, two of the Nation's largest cooperatives-- DFA and Land O'Lakes, formed a joint venture to own and operate a Minnesota cheese plant. In 2000, DFA had a 33 percent stake in Suiza's fluid operations in the United States through a joint venture (however, this arrangement was dissolved with the proposed merger of Suiza and Dean in 2001 and conse-

quently DFA acquired six Suiza plants and put them in a new joint venture with other partners). The implications for dairy cooperatives of these types of joint ventures need further examination.

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Box 1—Types of Dairy Cooperatives By Degree of Vertical Coordination

Bargaining cooperatives are the first step in vertical integration—producers gain a say in the market at the first handler level as they seek to secure the most profitable outlets for their members' milk. They own no plants, leaving further processing and sales of dairy products to others.

Bargaining-balancing cooperatives sell raw milk and provide related services to other handlers. They operate similarly to bargaining cooperatives, but have plant facilities to accommodate handlers' needs and/or to balance milk supplies. Their manufacturing operations are generally used for manufacturing commodity dairy products (butter, powder, and cheese) for last-resort balancing of surplus milk volume. They are only slightly more integrated up the marketing chain than bargaining cooperatives.

Hard-product manufacturing cooperatives use most of their members' milk in their own manufacturing plants to make undifferentiated, commodity dairy products. These cooperatives have opportunity to capture processor margins by operating well-run, large-scale modern plants and represent the next step (beyond operating plants to enhance their bargaining position) in vertical coordination.

Branded-cheese cooperatives typically process all of their members' milk in the cooperative's plants to manufacture and market specialty or branded cheese and other dairy products for particular markets. They may capture some marketing margins in addition to processor margins, thus taking their operations closer to the consumer.

Fluid processing cooperatives typically process their members' milk in bottling plants. Like branded-cheese cooperatives, they may capture some marketing margins in addition to processor margins, reflecting a similar degree of vertical integration. However, the fluid processing sector is extremely competitive and requires ample financial resources and top-notch management.

Diversified dairy cooperatives perform all or most of the functions that the other types of dairy cooperatives (described above) perform. They direct a steady volume of milk to their own processing or manufacturing plants to make a variety of products—both differentiated and commodity, while at the same time selling much of their milk supply to other handlers. Some are sophisticated marketers of consumer products. They are the most well-positioned to capture processor and marketing margins throughout the marketing chain.

Appendix table 1-Exiting dairy cooperatives, 1992-2000.

Afolkey Cooperative Cheese Company	Independent Milk Producer Cooperative
Albany-Greene Bulk Milk Producers Assoc.	Inter Lake Cooperative Creamery Association
Alburg-Isle LaMotte Vermont	Lafayette County Cooperative Creamery Assoc.
Allen Dairy Products Inc.	Lake Mills Cooperative Creamery Company
Aloha Dairy Cooperative	Lastrup Cooperative Creamery
Annandale Cooperative Creamery Association	Little Rock Cooperative Creamery Association
Atlantic Dairy Cooperative	Marketing Association of America Cooperative
Atlantic Processing Inc.	Mid-America Dairymen
Atwater Creamery Company	Middlefield Swiss Cheese Cooperative Assoc.
Bremer Cooperative Creamery Company	Milk Marketing Inc.
Brunkow Cheese Company	Millport Milk Producers Cooperative Assoc.
Buckman Farmers Cooperative Creamery	Miltona Creamery Association
California Cooperative Creamery	Mindoro Cooperative Creamery Association
California Milk Producers	Mountain Milk Producers Association Inc.
Carolina-Virginia Milk Producers Association	North Logan Dairy Cooperative
Champlain Milk Producers Cooperative Inc.	Oregon Jersey Cooperative Inc.
Chelsea Cheese Company	Palmeto Milk Producers Association
Chicagoland Dairy Sales Inc.	Pleasant View Cooperative Dairy Company
Clarks Grove Cooperative Creamery	Port Allegany Co-op Milk Producers Assoc.
Coble Dairy Products Cooperative Inc	Quality Milk Producers Association
Cold Spring Cooperative Creamery Assoc.	Roslyn Creamery Company
Conger Cooperative Creamery Company	San Joaquin Valley Dairymen
Cooperative Dairy Farmers of Lewisburg	Sauk Centre Cooperative Creamery Assoc.
Dairy Maid Cooperative	Southern Milk Sales Inc.
Dairyman's Cooperative Creamery Association	Star Valley Cooperative Cheese Company
Dairymen Inc.	State Dairy Association
Hebron Cooperative Creamery ²	Tampa Independent Farmers Association
Danish Creamery Association	Tioga Valley Co-op Bulk Milk Producers Assoc.
Eastern Milk Producers Co-op Association Inc.	Tri State Milk Cooperative
Edgerton Cooperative Creamery	United Can Milk Producers Co-op
Elizabeth Creamery Association	United Dairy Cooperative Services Inc.
Equity Supply Company	Valley of Virginia Cooperative Milk Producers
Farmers Cooperative Creamery	Vanguard Milk Produces Cooperative
Farmers Cooperative of Balaton	Western Dairymen Cooperative, Inc.
Florida Dairy Farmers Association	Westfield Co-op Milk Producers Assoc. Inc.
Fort Collins Milk Producers Association	Winfield Cheese
Franklin St. Lawrence Milk Producers Co-op	Wisconsin Dairies Cooperative
Fremont Cooperative Creamery Association	Wisconsin Milk Producers Cooperative Inc.
Glencoe Butter and Produce Association	
Golden Guernsey Dairy Cooperative	
Gulf Coast Dairymen's Association	
Gulf Dairy Association Inc.	
H P Farmers Cooperative Inc.	
H.P. Hood Company	
Huntington Interstate Milk Producers Assoc.	
Independent Cooperative Milk Producers Assoc.	

Appendix table 2-Dairy cooperatives formed since 1992.

Best Milk Producers Cooperative	Pastureland Cooperative
Butternut Farms Organic	Pioneer Valley Milk Marketing Cooperative
California Dairies	Premier Milk, Inc.
Cal-West Dairymen	Quality Dairy Producers
Central Minnesota Cooperative	Scenic Valley Protein Milk Producers Cooperative Association
Continental Dairy Products, Inc.	Select Milk Producers Association
Cooperative Milk Producers Association	Southeast Milk
Dairy Farmers of America	Sunrise Ag Cooperative
Dairymen's Marketing Cooperative, Inc.	Superior Shores Agricultural Cooperative
Elite Milk Producers, L.C.	Susquehanna Mini Dairy Cooperative
Farmer's Friendly Cooperative	Valley View Cheese Cooperative Association
Foremost Farms USA	ZIA Milk Producers Association
Green Belt Cooperative Inc	
Jersey Country Inc.	
Lanco Dairy Farms Cooperative	
Liberty Milk Co-op Association	
Lone Star Milk Producers, L.C.	
Maverick Milk Producers	
Middlefield Original Cheese Cooperative	
Mohawk High Protein Cooperative Inc.	

Appendix table 3--Distribution of cooperative headquarters, 1992-2000, by State.

State	1992	Exits	Entries	Net change		2000
	No.	No.	No.	No.	%	No.
Arizona	1	0	0	0	0.0	1
Arkansas	1	0	0	0	0.0	1
California	10	6	3	-3	-30.0	7
Colorado	1	1	0	-1	-100.0	0
Florida	2	2	1	-1	-50.0	1
Hawaii	3	1	0	-1	-33.3	2
Iowa	10	3	0	-3	-30.0	7
Idaho	1	0	0	0	0.0	1
Illinois	6	2	0	-2	-33.3	4
Indiana	1	1	0	-1	-100.0	0
Kentucky	2	1	0	-1	-50.0	1
Louisiana	1	1	0	-1	-100.0	0
Massachusetts	3	1	1	0	0.0	3
Michigan	3	2	0	-2	-66.7	1
Minnesota	52	16	3	-13	-25.0	40
Missouri	2	2	2	0	0.0	2
Mississippi	1	1	0	-1	-100.0	0
Montana	2	1	0	-1	-50.0	1
North Carolina	4	3	0	-3	-75.0	1
North Dakota	5	1	0	-1	-20.0	4
Nebraska	1	0	0	0	0.0	1
New Mexico	0	0	3	3	n/a	3
New York	67	8	6	-2	-3.0	64
Ohio	6	2	2	0	0.0	6
Oregon	4	1	0	-1	-25.0	3
Pennsylvania	22	7	3	-4	-18.2	19
South Carolina	2	1	0	-1	-50.0	1
South Dakota	2	1	0	-1	-50.0	1
Texas	2	1	3	2	0.0	3
Utah	2	2	0	-2	-100.0	0
Virginia	3	1	1	0	0.0	3
Vermont	3	1	0	-1	-33.3	2
Washington	2	0	0	0	0.0	2
West Virginia	1	1	0	-1	-100.0	0
Wisconsin	37	13	4	-9	-24.3	28
Total	265	84	32	-52	-19.6	213

Note: One cooperative's headquarters were relocated from TX to MN.

Appendix table 4—U.S. dairy cooperatives, by type, 1997.

<u>Primary function</u>	<u>Total assets</u>	<u>Share</u>
	Million dollars	Percent
Bargaining	374.0	6.1
Bargaining-balancing	428.4	7.0
Hard-product manufacturing	303.2	4.9
Branded cheese	140.6	2.3
Diversified ¹	4,900.9	79.7
<u>Total</u>	<u>6,147.0</u>	<u>100.0</u>
<u>Primary function</u>	<u>Net milk volume handled</u>	<u>Share</u>
	Million pounds	Percent
Bargaining	60,657	24.1
Bargaining-balancing	17,892	14.0
Hard-product manufacturing	5,434	4.3
Branded cheese	1,562	1.2
Diversified ¹	71,874	56.4
	<u>127,419</u>	<u>100.0</u>
<u>Primary function</u>	<u>Number</u>	<u>Share</u>
		Percent
Bargaining	163	72.1
Bargaining-balancing	16	7.1
Hard-product manufacturing	5	2.2
Branded cheese	19	8.4
Diversified ¹	23	10.2
<u>Total</u>	<u>226</u>	<u>100.0</u>

Source: (Liebrand)

¹ Includes the fluid processing cooperatives also.

Appendix table 5—Region of exiting and entering dairy cooperatives headquarters, by type.

	Bargaining		Bargaining-balancing		Hard product manufacturing	
	Number	Percent	Number	Percent	Number	Percent
Cooperatives exiting 1992-2000:						
North Atlantic	11	22.9	4	25.0	0	0.0
East North Central	7	14.6	6	37.5	0	0.0
West North Central	17	35.4	3	18.8	0	0.0
South Atlantic	6	12.5	0	0.0	0	0.0
South Central	2	4.2	1	6.3	0	0.0
Western	5	10.4	2	12.5	2	100.0
	—	—	—	—	—	—
	48	100.0	16	100.0	2	100.0
	Number	Percent				
Cooperatives entering '92-'00:						
North Atlantic	6	28.6				
East North Central	2	9.5				
West North Central	3	14.3				
South Atlantic	2	9.5				
South Central	3	14.3				
Western	5	23.8				
	—	—				
	21	100.0				
	Branded-cheese		Fluid processing		Diversified	
	Number	Percent	Number	Percent	Number	Percent
Cooperatives exiting '92-'00:						
North Atlantic	1	14.3	0	0.0	1	12.5
East North Central	5	71.4	1	33.3	1	12.5
West North Central	1	14.3	0	0.0	2	25.0
South Atlantic	0	0.0	2	66.7	0	0.0
South Central	0	0.0	0	0.0	1	12.5
Western	0	0.0	0	0.0	3	37.5
	—	—	—	—	—	—
	7	100.0	3	100.0	8	100.0
	Number	Percent	Number	Percent	Number	Percent
Cooperatives entering '92-'00:						
North Atlantic	3	42.9	1	100.0	0	0.0
East North Central	3	42.9	0	0.0	1	33.3
West North Central	1	14.3	0	0.0	1	33.3
South Atlantic	0	0.0	0	0.0	0	0.0
South Central	0	0.0	0	0.0	0	0.0
Western	0	0.0	0	0.0	1	33.3
	—	—	—	—	—	—
Total	7	100.0	1	100.0	3	100.0

Appendix table 6—Distribution of dairy cooperatives, exits and entries 1992-2000, by type and size.

Type of cooperative	1992		Exits No.	Entries No.	Net size or type change ¹ No.	Net change		2000	
	No.	%				No.	No.	% of '92	No.
Bargaining									
Small ²	119	67.6	34	8	13	-13	-10.9	106	67.5
Medium ³	51	27.9	11	10	-8	-9	-17.6	42	26.8
Large ⁴	9	4.5	3	2	0	-1	-11.1	8	5.1
Total⁵	179	100.0	48	21	5	-22	-12.3	157	100.0
Bargaining-balancing									
Small	14	46.7	8	0	-1	-9	-64.3	5	41.7
Medium	9	30.0	3	0	-2	-5	-55.6	4	33.3
Large	7	23.3	5	0	1	-4	-57.1	3	25.0
Total	30	100.0	16	0	-2	-18	-60.0	12	100.0
Hard product mfg.									
Small	1	20.0	0	0	-1	0	0.0	0	0.0
Medium	2	40.0	0	0	1	0	0.0	3	100.0
Large	2	40.0	2	0	0	-2	-100.0	0	0.0
Total	5	100.0	2	0	0	-2	-40.0	3	100.0
Branded-cheese									
Small	19	76.0	6	7	-4	-3	-21.1	16	68.2
Medium	6	24.0	1	0	1	0	-16.7	6	31.8
Large ³	0	0.0	0	0	0	0	n/a	0	0.0
Total	25	100.0	7	7	-3	-3	-12.0	22	100.0
Fluid processing									
Small	1	14.3	0	1	0	1	100.0	2	40.0
Medium	6	85.7	3	0	-1	-4	-66.7	2	40.0
Large	0	0.0	0	0	1	1	n/a	1	20.0
Total	7	100.0	3	1	0	-2	-28.6	5	100.0
Diversified									
Small	1	5.3	1	0	0	-1	-100.0	0	0.0
Medium	6	31.6	2	0	-1	-3	-50.0	3	21.4
Large	12	63.2	5	3	1	-1	-8.3	11	78.6
Total	19	100.0	8	3	0	-5	-26.3	14	100.0

¹ Some cooperatives operating in both 1992 and 2000 changed size category and/or operating type.

² Handled less than 50 million pounds of milk per year.

³ Handled 50 to 999 million pounds of milk per year.

⁴ Handled 1 billion or more pounds of milk per year.

⁵ Unknown size for one of the new bargaining cooperatives; totals may not add.

U.S. Department of Agriculture

Rural Business-Cooperative Service

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Rural Business-Cooperative Service (RBS) 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 cooperative segment of RBS (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. RBS also publishes research and educational materials and issues Rural Cooperatives magazine.

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