

New Generation Cooperative Membership: How Do Members Differ from Nonmembers?

Extension Report No. 40, March 1998

Frayne Olson, Assistant Director, Quentin N. Burdick Center for Cooperatives

Theron F. Kibbe, Director of Marketing, Farm Credit Services, Batavia, NY

Gary A. Goreham, Associate Professor, Department of Sociology/Anthropology

Department of Agricultural Economics
North Dakota Extension Service

The number of new agricultural processing cooperatives, either under development or in operation, has grown rapidly in the Northern Plains. These new generation cooperatives (NGCs) are structured differently from the more traditional elevator and farm supply cooperatives.

NGCs focus on the processing and marketing of agricultural products, rather than marketing raw commodities or supplying agricultural production inputs. Cooperative members are required to provide raw commodities for processing through marketing contracts. The amount each member is allowed to deliver is tied directly to the number of equity stock shares which are purchased. The total number of equity shares, and related contract delivery rights, is limited to the amount needed for the cooperative's financial stability and peak processing efficiencies.

The combination of direct equity investment in the cooperative, and the related commodity delivery rights and obligations, has made the NGC membership decision more complex. These aspects also have raised several interesting questions about the differences in attitudes, perceptions, and characteristics between agricultural producers who have become members of the new cooperatives and those who have not.

Recent research conducted at North Dakota State University sheds light on the differences and similarities of agricultural producers who do and do not become members of the NGCs. This publication summarizes the results of that research by comparing the characteristics of farmers who became members of large, crop-related NGCs or small, livestock-related NGCs with nonmembers.

Research Methods

Members and potential members of four North Dakota NGCs were surveyed during Spring 1996. There were 505 completed surveys; 190 farmers were in the nonmember category; 230 were in the large, crop-related NGC category; and 85 were in the small, livestock-related NGC category. All of the respondents had attended membership equity drive meetings.¹

¹ For additional information, see Goreham, Gary A. and Theron F. Kibbe. "A Comparison of Members and Non-members of the New Generation Agricultural Cooperatives in North Dakota: A Research Note." Paper presented at the Great Plains Sociological Association annual meeting, Brookings, SD, October 16-17, 1997.

Three broad categories of questions were asked about the membership of NGCs. First, do members have different farm and personal characteristics than nonmembers? Second, do members have different perceptions and attitudes about the NGC than nonmembers? And third, do members have a greater level of cooperative involvement than nonmembers?

Do members have different farm and personal characteristics than nonmembers?

NGC members differed from nonmembers in several ways. On average, members were younger than nonmembers (44 years old versus 48 years old, respectively). Members tended to have higher levels of education than nonmembers, with crop NGC members having the highest percentage (41%) of college graduates.

Crop NGC members farmed more acres (2,140 acres), had more net income from farming (\$60,192), and had a stronger financial condition, or debt/asset ratio (30%), than nonmembers and livestock NGC members. Both crop and livestock NGC members had more off-farm income than nonmembers, and both had higher net worth than nonmembers (Table 1).

Table 1. Selected Personal and Financial Characteristics of New Generation Cooperative Members and Nonmembers, North Dakota, 1996.

| Characteristic | Large, Crop | | Small, Livestock |
|---|-------------|---------------|------------------|
| | Nonmembers | Co-op Members | Co-op Members |
| Average Age ^{a,b} (years) | 48 | 44 | 44 |
| Percent with College Degree ^{a,c} | 18 | 41 | 20 |
| Total Acres Farmed ^a | 1,731 | 2,140 | 1,738 |
| Net Income from Farming (\$) ^{a,c,d} | 24,720 | 60,192 | 25,842 |
| Off Farm Income (\$) | 11,983 | 17,376 | 17,144 |
| Debt/Asset Ratio (%) ^b | 30 | 26 | 24 |
| Net Worth (\$) ^{a,c} | 373,984 | 691,695 | 478,684 |

^a Statistically significant difference between Nonmembers and Large co-op members.

^b Statistically significant difference between Nonmembers and Small co-op members.

^c Statistically significant difference between Large co-op members and Small co-op members.

^d 1995 Schedule F, Form 1040; Networth = Gross Income - Expenses

Do members have different perceptions and attitudes about the NGC than nonmembers?

NGC members felt more strongly than nonmembers that their role within the agricultural industry extends beyond production agriculture and into the food processing and distribution businesses. Also, members more firmly believed that the time they spend in these new roles will increase in the future (Table 2).

Table 2. Perceived Role in the Agricultural Industry and Anticipated Change in the Amount of Time Spent on Roles in the Next Five Years of New Generation Co-op Members and Nonmembers, North Dakota, 1996.

| | Large, Crop | | Small, Livestock |
|---|-------------|---------------|------------------|
| | Nonmembers | Co-op Members | Co-op Members |
| Perceived role in the agricultural industry. "I'm in the...." | | | |
| (Based on 5-point scale ranging from 1=strongly agree to 5=strongly disagree.) | | | |
| Food production business | 1.4 | 1.3 | 1.4 |
| Food processing business ^{a,b,c} | 3.7 | 2.4 | 2.8 |
| Food transportation business ^{a,c} | 3.3 | 2.9 | 3.3 |
| Food marketing business ^a | 2.8 | 2.4 | 2.6 |
| Food wholesale business ^{a,c} | 3.4 | 2.8 | 3.2 |
| Food retail business ^{a,b} | 3.8 | 3.4 | 3.3 |
| Change in amount of time spent on selected agricultural roles in the next five years | | | |
| (Based on 3-point scale where 1=increase, 2=remain the same, and 3=decrease.) | | | |
| Food production business ^{a,b} | 1.8 | 1.5 | 1.4 |
| Food processing business ^{a,b} | 1.9 | 1.5 | 1.7 |
| Food transportation business ^{a,b} | 2.0 | 1.7 | 1.8 |
| Food marketing business ^{a,b} | 1.8 | 1.4 | 1.5 |
| Food wholesale business ^{a,b} | 1.9 | 1.6 | 1.7 |
| Food retail business ^{a,b} | 1.9 | 1.7 | 1.8 |
| N | 170 | 229 | 79 |

- ^a Post hoc t-test differences between Nonmembers and Large co-op members
- ^b Post hoc t-test differences between Nonmembers and Small co-op members
- ^c Post hoc t-test differences between Large co-op members and Small co-op members

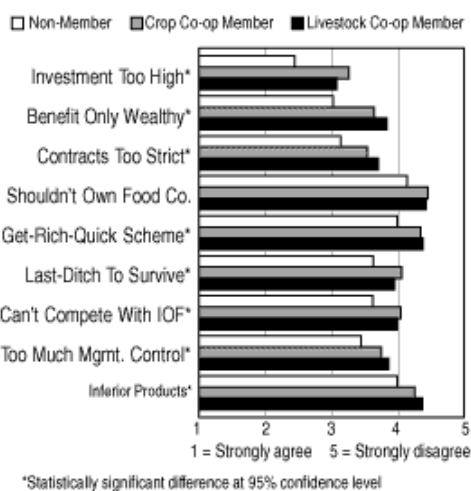
Both members and nonmembers believed that the cooperative will meet the following objectives: increase farm income and productivity, reduce marketing risk, increase market access, increase member networking and knowledge, provide new services, and increase membership share values. However, NGC members felt more strongly that these objectives would be met (Figure 1).

Figure 1. Farmer attitudes about the cooperative's potential.



Survey participants were asked about their attitudes toward the NGC organization and position within the industry. Members and nonmembers viewed the NGC in similar ways, but the members had stronger attitudes. Members felt more strongly that the NGC was not a get-rich-quick scheme, a last-ditch effort to survive, or benefited only the wealthy. They also more firmly believed that the cooperative did not have inferior products, too strict contract terms, or too high an initial investment. Members disagreed more strongly that the managers had too much control, the NGC could not compete with an investor-owned firm (IOF), or that farmers should not own food companies (Figure 2).

Figure 2. Farmer ideology toward the cooperative.



Questions were asked concerning the importance members and nonmembers placed on selected items in their membership decision. Members and nonmembers responded similarly to these questions. Only four items (intended plant location, feasibility study results, marketing plan, and profit potential) proved to be different when evaluated. And, within these four items, only the crop NGC members had strong enough attitudes to statistically separate them from livestock NGC members and nonmembers. The remaining items showed no statistical difference between members and nonmembers (Figures 3a and 3b).

Figure 3a. Importance placed on items during membership evaluation (statistically significant items).

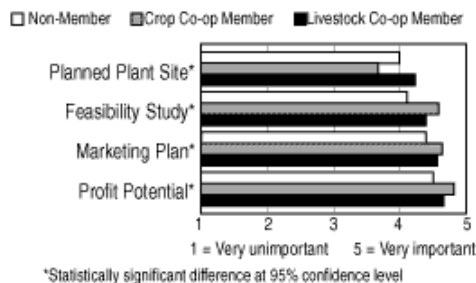
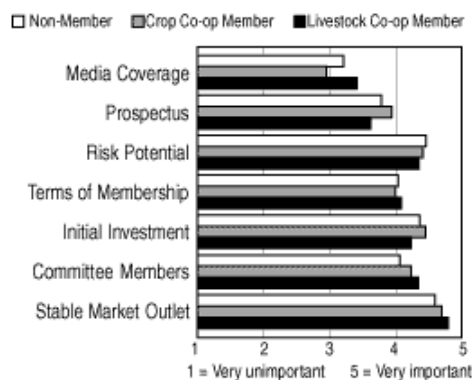


Figure 3b. Importance placed on items during membership evaluation (items not statistically significant).



The next series of questions checked for differences in perceptions concerning long-term risks and returns from NGC membership. Participants were asked to compare the investment returns and risks from the NGC to similar investments in stocks, bonds, mutual funds, certificates of deposit, agricultural land, and other on-farm enterprises. Members considered the returns from the NGC to be similar or slightly higher than the alternative investments, while nonmembers considered the NGC's long-term returns to be slightly less than the alternatives (Figure 4). Livestock members and nonmembers viewed the NGC's investment risks similarly, and regarded the risks to be comparable to the alternative investments. However, the crop NGC members considered their investment to be a greater risk than the alternative investments (Figure 5). One question related specifically to the ability of the NGC to reduce marketing risk. Livestock NGC members felt more strongly than the crop NGC members and nonmembers that marketing risks would be reduced by the NGC (Figure 6).

Figure 4. Comparison of cooperative's long-term returns to other investments.

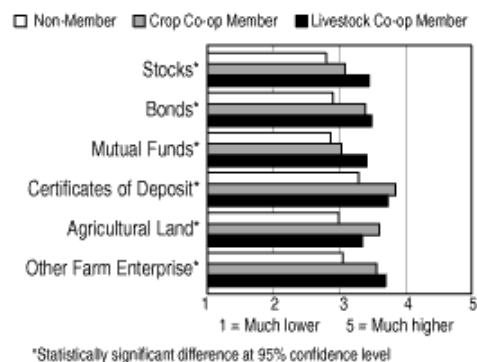


Figure 5. Comparison of cooperative's risks to other investments.

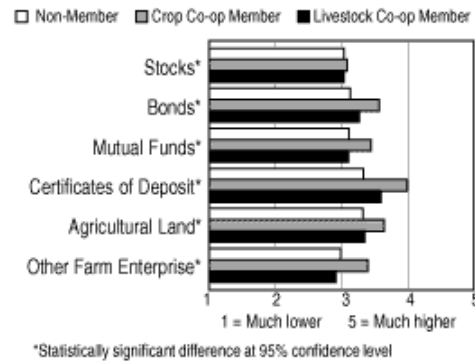
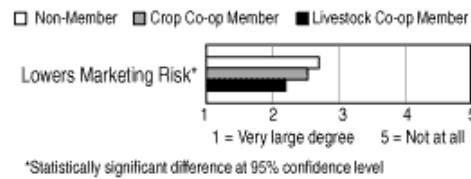


Figure 6. Farmer attitudes about cooperative's ability to reduce long-term marketing risk.



Do members have a greater level of cooperative involvement than nonmembers?

Participants were asked about their involvement in other cooperatives, such as farm supply, marketing, service, or sugar beet co-ops. Crop NGC members were members of more farm supply, elevator, and sugar beet cooperatives than livestock members or nonmembers. There were no statistical differences among the three groups in membership of service cooperatives, such as rural telephone or electric cooperatives (Table 3). Few consistent trends or statistical differences were noted among the three groups regarding the number of offices or board positions they had held or the average number of cooperative meetings they attended annually.

Table 3. Number of Memberships in Other Agricultural Cooperatives, North Dakota, 1996.

| Type Of Co-op | Nonmembers | Large, Crop Co-op Members | Small, Livestock Co-op Members |
|--------------------------|------------|---------------------------|--------------------------------|
| Farm Supply ^a | 2.0 | 2.4 | 2.2 |
| Marketing ^a | 1.1 | 1.6 | 1.3 |
| Service | 1.5 | 1.6 | 1.7 |
| Sugar Beet ^a | 0.0 | 0.2 | 0.1 |

^a Statistically significant difference between Large crop co-op members and Nonmembers.

Implications

Several implications stem from the results of this study. First, several questionnaire items were strongly related to NGC membership. For example, members felt more strongly that the NGC was an economically viable way to expand their farm/ranch operations beyond commodity production. This may have been influenced by their level of education, positive view of the NGC's potential, and the desire to diversify beyond commodity production. Also, members were younger, managed larger operations, and were more financially stable than nonmembers. Members may recognize that potential benefits would be achieved over the long-term and were better able to accept the investment risk of membership. Also, a smaller percentage of the total farm/ranch finances and production are committed to the cooperative.

A second implication pertains to NGC organizers and leaders, who should be aware of the characteristics of farmers most likely to be interested in joining their cooperative. Initial stock offering drives that focus primarily on potential members who possess these characteristics may be more effective than a blanket approach. However, the focused approach may inadvertently discriminate against other farmers who do not possess these characteristics. For an NGC to obtain sufficient investor funding in order to secure additional lender funding, it may be important to demonstrate that it can raise a large amount of invested capital early into the drive. Thus, NGC organizers could operate the drive in two phases. The first phase would involve strategies that focus heavily on farmers whose characteristics suggest they may be most likely to invest. The second would involve strategies that blanket all farmers regardless of their characteristics.

Third, NGCs are not all the same, and neither are their members. The members of the large, crop-related NGCs and the small, livestock-related NGCs shared many of the same personal characteristics, belief in NGCs' ability to accomplish their objectives, ideology regarding cooperatives, and beliefs about NGCs' long-term return on investment compared with other investments. They also differed substantially with each other in several ways. There were several differences in farm operation characteristics, perceived role in the agricultural industry, view of long-term risk of NGC investment compared with other investments, and participation in other cooperatives. This must be borne in mind by policymakers, agricultural officials, the media, rural development and industrialization specialists, and cooperative leaders as they attempt to generalize the characteristics of all NGC members.

Fourth, the structure of American agriculture continues to shift from many, medium-sized farms to fewer, larger operations and a growing number of smaller operations. Much of this shift is in response to the need to capture efficiency of scale, especially given the narrowing profit margins caused by increasing costs of production and stagnant commodity markets. This research suggests that an additional change likely will be ongoing in the structure both of production agriculture and in the overall agro-food complex. Farmers typically relied on traditional marketing structures (e.g., local grain elevators and livestock sales arenas) to sell their commodities. However, a "new generation" of farmers is emerging — typically younger, more educated, with larger assets — who are no longer content with these traditional marketing structures. These farmers will likely have less loyalty to the local outlet of transnational agricultural corporations, and will be more innovative in looking for ways to add value to their commodities. In their pursuit to capture a larger percentage of the food dollar, the face of the agro-food complex may also change.

Fifth, farmers, whether NGC members or nonmembers, perceived themselves as food producers. However, the NGC members (and particularly those involved in large, crop-related NGCs) saw themselves also as food processors, transporters, marketers, wholesalers, and retailers. They saw themselves as participants at several stages of the value-added "food chain." If innovation in agricultural enterprises is to occur, changes may be required in how farm producers perceive themselves. Those who produce the nation's food may need to shift their paradigm from being in the farming business to being in the food business.

Sixth, the things both NGC members and nonmembers look for as they consider investing in a NGC are, for the most part, the same — stable markets, potential for profit, reasonable risk, manageable investment costs. Each group listed these types of considerations as "somewhat important" or "very important" in their decision to invest in a NGC. However, NGC members were more optimistic than nonmembers in the cooperatives' ability to accomplish these goals. Members believed that the cooperative could achieve these goals "often" or "very often," whereas nonmembers were more inclined to believe they could be achieved "often" or "occasionally." According to adoption diffusion theory², different traits characterize those who adopt a technology or innovation at different stages. The degree to which NGCs succeed or fail over the next several years will likely determine how many and what type of farmers invest in NGCs, and if or when they will invest.

² See Rogers, Everett N. *Diffusion of Innovations*. New York: The Free Press, 1983.

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North Dakota State University Agriculture and University Extension
NDSU Dept. 7070, P.O. Box 6050, Fargo, ND 58108-6050