

# CHARACTERISTICS OF MEMBERS IN THE NATIONAL YOUNG FARMER EDUCATION ASSOCIATION

**Dale R. Carpentier**

Monroe Area Comprehensive High School

**Maynard J. Iverson**, Associate Professor

The University of Georgia

## Abstract

*The National Young Farmer Educational Association, Inc. (NYFEA) is the vocational student organization for those adults enrolled in agriculture classes, usually through the local vocational agriculture/agricultural education program. Since being incorporated as a non-profit, non-political educational association for agriculture in 1982, the organization has developed programs based on assumptions about the membership that may not have been true. This article reports on a doctoral study which sought to: develop a demographic profile of NYFEA members; examine involvement of NYFEA members in farm and off-farm employment; and, identify future plans of NYFEA members. A random sample was drawn of the 17,750 members nationally. A mailed questionnaire provided data for the study. NYFEA were 12 years younger than the national average for farmers; their farms were twice the size and they had a larger investment; NYFEA members sold twice the agricultural products; and, had a higher level of education than the average American farmer. Over one-third of NYFEA members worked off the farm and a majority planned to expand their farm operations. The age limitation on membership should be re-examined based on the findings of the study; demographics should be considered in developing curriculum and activities for the NYFEA.*

The National Young Farmer Educational Association, Inc. (NYFEA) is the vocational student organization for those adults enrolled in agriculture classes, usually through the local vocational agriculture program (Sprick, 1989). Young Farmer chapters at the local level have been in existence since the 1940s and some state associations can be traced back to the mid-1950s (Schwarm, 1983). It wasn't until July 1982, however, that a national organization was established. The NYFEA was incorporated September 17, 1982, as a non-profit, non-political educational association for agriculture (Sprick, 1989). Since that time the NYFEA has developed programs and activities based on assumptions about the membership.

## Need for Adult Education in Agriculture

It wasn't until 1920 that the urban population in the United States exceeded the rural population (Grattan, 1971). Citing the 1920 census figures, Schmidt (1928) reported that more than six million adult farmers were over twenty-one years of age in the United States and that the majority of them had received little or no technical instruction for farming; thus a definite need existed for adult education in agriculture. By 1989, only 4.8 million people of all ages remained on farms (Beale, 1990, p.6). If one added the number of people who lived off the farm they operated, the number increased to 5.3 million, or just 2 percent of the total population in the United States (Beale, 1990, p.6). According to the 1987 Census of Agriculture (Bureau of the Census, 1990), only 34% of the farmers have completed more than 12 years of school, indicating

that a definite need still exists for adult education in agriculture.

Miller and Cano (1987) surveyed farmers in two counties in Ohio and concluded, "A large majority of the farmers and agribusiness owners/managers had a felt need for adult education programs in agriculture" (p. 11). Some of the reasons the respondents wanted educational programs included keeping up with complex changes and their belief that one is never too old to learn.

In a national study of adult education in agriculture, Birkenholz and Maricle (1990) concluded that, "Adult education is an important component of agricultural education" (p. 14). In another aspect of their study, they asked respondents -- who consisted of state supervisors and head agricultural teacher educators -- if it would be a positive addition for their state to have an organized affiliate of the National Young Farmer Educational Association. Birkenholz and Maricle (1990) recommended, "Each state should be encouraged to organize an affiliate of the National Young Farmer Educational Association" (p. 14).

#### National Young Farmer Educational Association

The concept of a society or club for farmers is not new. Stimson and Lathrop (1942) noted that nearly 100 farmers' clubs were organized in Minnesota during 1908-09. They went on to state that "The aims of the movement were both educational and social" (p. 236). What makes the NYFEA unique from previous organizations is that it has been officially recognized as a vocational student organization by the U.S. Department of Education (NYFEA Staff, 1991).

#### Objectives and Purposes of the Association

The main purpose of the NYFEA is education. Specific objectives are: (a) to assist young farmers

and ranchers to become and remain established in farming, ranching or agribusiness; (b) to assist in improving economic status and developing family relationships; (c) to cooperate with organizations for improvement to rural life; (d) to develop leadership and communication skills; (e) to provide group identity and unity; (f) to promote the Association as an integral part of agricultural education; and, (g) to improve rural-urban relations and consumers' understanding of agricultural issues (NYFEA Staff, 1991, p.49).

In order for the NYFEA to accomplish these objectives, its leaders must understand the demographic characteristics of the membership. Much of the earlier research about the NYFEA concentrated on instructors and local or state administrators. The review of literature revealed that the doctoral research of Carpentier (1992) was the first scientifically conducted, national study of the NYFEA membership. The insights gained from this study have already proved valuable in planning the future of the NYFEA and can serve as baseline data for other studies.

#### Statement of the Problem

In the past, little was known about the NYFEA membership. Many assumptions have been made about the characteristics of the membership, based on studies of young farmer advisors, state supervisors of agricultural education, and college personnel. A study of the national membership which was conducted by Warren (1985) sought demographic data on the group. However, the information which Warren obtained was limited in usefulness because it lacked external validity.

External validity refers to "...the degree to which the conclusions from an experiment can be generalized to other subjects, other situations, and other times" (Vockell, 1983, p. 352). The problem with Warren's data was that they represented a biased sample. According to Vockell (1983), "The obvious bias is that only those who volunteered to respond are part of the actual sample available for

analysis. A much better strategy would have been to select a smaller sample and to attempt to get 100% of the responses" (p. 107).

In order for the NYFEA to serve its membership, the characteristics of the members must be known. Therefore, the problem studied in this investigation was that valid data on the characteristics of the NYFEA members did not exist.

### **Purpose and Objectives**

The primary purpose of this study was to investigate and analyze the demographic characteristics of the membership in the NYFEA. Specific objectives relating to demographics were to:

1. develop a demographic profile of NYFEA members;
2. examine the degree of involvement in production agriculture and off-farm employment of NYFEA members; and,
3. identify future agricultural business plans of NYFEA members.

### **Procedures**

#### Design

The researchers determined the most appropriate methods of research for this study would be descriptive research. According to Sax (1988), research involving the collection of data for the purpose of describing conditions as they exist is called descriptive or status research" (p. 288). Descriptive analyses were used to estimate population data. Inferential and comparative analyses were used to relate data based on demographic characteristics to the population and to response variables.

#### Population and Sample

The population was all the members of the NYFEA in the United States in 1991-1992. This number was projected to be approximately 17,750 members in 21 states (NYFEA Staff, 1991). Using a sampling formula from A Handbook of Survey Research (Kingery, Bryant, Palmer & Araghi, 1989), it was determined that 376 members were needed for this study, assuming the preliminary estimate of the variance of responses to be 0.5, and the desired confidence level was 95%. The sampling error was estimated as +/-5%. The 376 random numbers for the sample were generated using the computer program MSUSTAT: Statistical Analysis Package (Lund, 1988). These numbers were then sent to the national Office for the Identification of the NYFEA members to be included in the study. The computerized membership roster for the NYFEA was listed alphabetically by member within each chapter, by chapters within each state and by states. This allowed each member to be assigned a number from 1 to 17,750 by the computer. The names and addresses of the randomly selected members were printed on mailing labels which were sent to the researchers. The labels were then coded for identification purposes to facilitate follow-up mailings.

#### Instrumentation and Data Collection

It was determined that a mailed questionnaire would be most effective in time and economy for this study. Since no appropriate instrument was available from the literature, a questionnaire was developed using suggestions from the National Office Executive Director, information from the 1987 Census of Agriculture (Bureau of the Census, 1990) and similar studies, and from program information found in the NYFEA 1991-1992 Directory (NYFEA Staff, 1991). The questions varied in type of response elicited, including fill-in-the-blanks, items to be rated on a Likert-type scale, and open-ended questions.

The instrument was field tested for face validity with the NYFEA Board of Directors, national committee chairpersons, and the Georgia Young Farmers Association Executive Committee. Reliability analysis of the field test revealed a Cronbach's alpha of .88.

Three mailings were made on a monthly basis. At the end of the 90-day data-gathering period, a 10 percent random sample of non-respondents was selected for a telephone follow-up. The responses from the mailed questionnaire and the telephone follow-up were analyzed using t-tests. There were no significant differences on selected demographic variables, so the data were pooled. According to Kingery, et al. (1989), the effect of non-response on survey estimates depends on the percent of the sample not responding and the extent to which those not responding are biased, i.e. different from respondents. If no bias is present, response rate doesn't affect sample estimates (p.24).

### Data Analysis

Data reported in this article were analyzed using descriptive statistic, including frequencies, percentages, means and ranges. Random sampling allowed the findings to be generalized to the entire population.

## **Results**

The findings presented in this paper are based on the responses of 147 NYFEA members from 18 states who returned questionnaires and 23 NYFEA members who were included in the telephone follow-up group. These revealed no significant differences, therefore the data were pooled. Thus, 170 respondents provided useable data, for a 45.2% overall response rate.

### Demographic Data

The age of the respondents ranged from 17 to 73 years, for a mean of 40.2 and a median of 38

years. Eighty-nine percent of the respondents were male. The great majority were married, 84.4%, and averaged 1.4 children living at home. Those who were never married accounted for 11.3% of the respondents while 3.1% indicated they were separated, widowed or divorced; 2.2% did not specify marital status. Almost all of the respondents (95.3%) graduated from high school. The average years of formal education for all respondents was 13.6 years with 29.3% indicating they possessed a bachelors, masters, or doctoral degree. Nearly two-thirds (62.5%) of the NYFEA respondents participated in high school agricultural education classes ( $\bar{M}$  = 3.7 years) and FFA ( $\bar{M}$  = 4.0 years), while 40.6% indicated they were 4-H members ( $\bar{M}$  = 6.0 years). When asked about participation in other organizations, respondents ranked church involvement first (70.6%), followed by involvement in various farm organizations (53.8%) and livestock associations (38.1%).

### Involvement in Production Agriculture and Off-Farm Employment

More than three-fourths of the respondents (78.8%) classified their operations as production agriculture. Sole proprietorship was the most common type of operation, as indicated by 56.9% of the respondents. Roughly two-thirds of the respondents (65%) lived on the farm that they operated; 21.4 years was the average length of time on their present farm. More than one-third (35%) of the respondents indicated that they worked off the farm full-time (22.5) or part-time (12.5%). Nearly four out of ten (38.7%) of the spouses also worked off the farm full-time (18.1%) or part-time (20.6%). The income generated from off-farm employment was considered necessary to continue farming by 35.6% of the respondents.

The estimated value of land and buildings for the 106 respondents engaged in production agriculture was computed to average \$342,617. The average farm/ranch size for 177 respondents was 933 acres. Most of the land (54.2%) was

privately owned by the respondent with 45.8% rented and 19.1% of the acreage operated in partnership. Cropland accounted for approximately 55% of the acreage with 37% devoted to pasture/rangeland. Timberland accounted for 5.8% of the acreage with 2.2% being declared unusable for production because of roads, ponds, house lot, etc. Livestock and poultry accounted for 66.7% of the income for 87 respondents. The most frequently reported type of livestock raised was beef cattle (67 respondents) followed by swine production (29 respondents) and dairy production (19 respondents). Crops accounted for 57.1% of the income for 67 respondents. The most frequently reported crop was corn for grain or seed (69 young farmers); followed by hay (67 respondents); wheat for grain (51 individuals); and soybeans (49 young farmers).

#### Future Plans

The respondents indicated their plans for the next 10 years in specified areas. Four out of ten (41.9%) of the respondents indicated they planned to put up new buildings. Expansion of livestock enterprises was a priority for 39.4% of the respondents. Buying or renting more land in the next 10 years was cited by 38.1% of the

respondents. Expanding crop enterprises was listed as an intention by 28.8% of the young farmers.

### **Conclusions**

When the findings were compared to the 1987 Census of Agriculture: Agricultural Atlas of the United States (Bureau of the Census, 1990), the following conclusions were drawn: NYFEA members were approximately 12 years younger than the national average for farmers; they operated farms more than twice the size of the national average with a larger investment in land and buildings; the average value of agricultural products that they sold was more than twice the national average; and, they had a substantially higher level of educational attainment when compared to the average American farmer. These contrasting data can be viewed in Table 1.

The majority of NYFEA respondents were planning to expand their operations during the next 10 years. Thus, it could be concluded that most NYFEA members are committed to remaining in farming or ranching.

Table 1. Comparison of NYFEA Demographics to the 1987 Census of Agriculture

Areas of Comparison	NYFEA Members	U.S. Farmers
Average age of farm operators in years	40.2	52.0
Average size of farm in acres	933	462
Average value of land and buildings	\$342,617	\$289,387
Average value of agricultural products sold, per farm	\$134,603	\$ 65,165
Educational Attainment:		
12 years of school completed	43.1%	33.8%
13 or 14 years of school completed	20.0%	11.0%
15 or 16 years of school completed	18.8%	8.9%
17 or more years of school completed	12.1%	8.1%

## Recommendations

Studies should be conducted periodically at the state and national levels to monitor NYFEA membership demographics. The NYFEA should widely disseminate the demographic information and future plans of the current membership in order to attract new members, sponsors, and potential cooperating organizations. The cutoff for participation in competitive activities and service as an officer is 40 years of age; therefore, the leadership of the NYFEA should reconsider the age limitation for office and competitive activities base on newly determined demographics of its members.

Furthermore, since the typical member is known to have certain characteristics, the NYFEA should examine the curricular needs for both family and farm business development. Finally, these data should be used to evaluate current programs and to aid in planning new programs for the NYFEA, in order to better serve the membership. State and local leaders in agricultural education should conduct analyses of their young farmer membership in order to better plan state and local programs.

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