Attributes of U.S. Farms by Number of Generations the Farm Has Been in a Family

By Carl Zulauf

Abstract

Thirty-nine percent of farmers surveyed in 26 states during the spring of 2001 classified their farm as being in the family for three or more generations. Thirty-six percent classified the farm as first generation. On average, third-and-higher generation farms are larger, provide more of the family's income, and depend more on farm program crops than first and second generation farms. These differences suggest that providers of farm management services may generate new opportunities by segmenting into different market niches farms that differ by generation in farming.

Introduction

The transfer of farms across family generations is a defining component of U.S. farm culture. Moreover, the desire to sustain family farms over time is often used as an argument for maintaining farm commodity support policy, as well as reducing and/or eliminating estate taxes. While studies have documented that farmers are more likely than other workers to have the same occupation as their father, the studies located by the authors in their review of the literature were dated (see, for example, Blau and Duncan, 1967, and Laband and Lentz, 1983).

To obtain contemporary information on the intergenerational transfer of farms, a question was included on the 2001 National Agricultural, Food, and Public Policy Preference Survey. The purpose of the survey was to elicit the views of farmers on issues surrounding the 2002 reauthorization of the farm bill. The question of interest to this study was, "On this farm or ranch, which generation does the current operator represent (including your family or your spouse's family)?" The respondent was asked to check a box for the number of generations: 1, 2, 3, 4, 5, and 6 or more.

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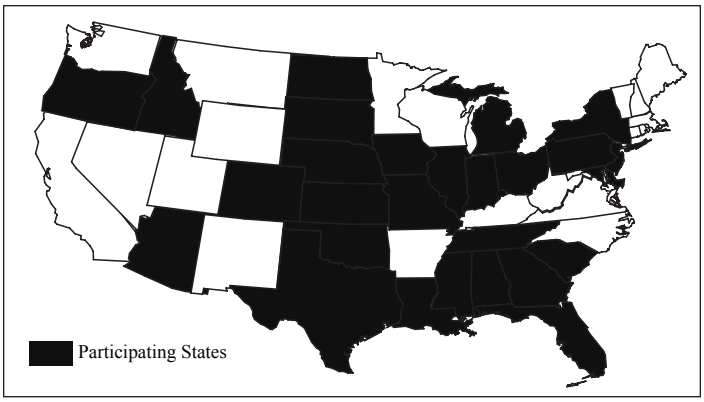
Note that the question focused jointly on the farm and operator by asking what generation on this farm or ranch the current operator represented. No other information was provided to respondents. Thus, respondents in the same objective situation could have answered the question differently depending on their interpretation of their specific situation. A subjective approach was taken because of space limitations on the survey instrument and because it was impossible to provide instruction that covered every possible situation. Despite its subjective nature, the question allowed the farmer respondent to provide an indication of the extent to which farms are passed from one generation to the next.

This article reports on the findings for the generational question, but first the survey's methodology is described briefly. Conclusions and implications are drawn in the final section.

Survey Methodology

The survey was mailed to a random sample of farmers in 27 states (see figure 1). These states represent a wide variety of farm production systems and geographical areas. They contain 1.3 million farms, or 70 percent of all U.S. farms (1997 Census of Agriculture).

Figure 1. States participating in Farm Policy Survey, U.S., 2001



Source: Lubben, Simons, Bills, Meyer, and Novak

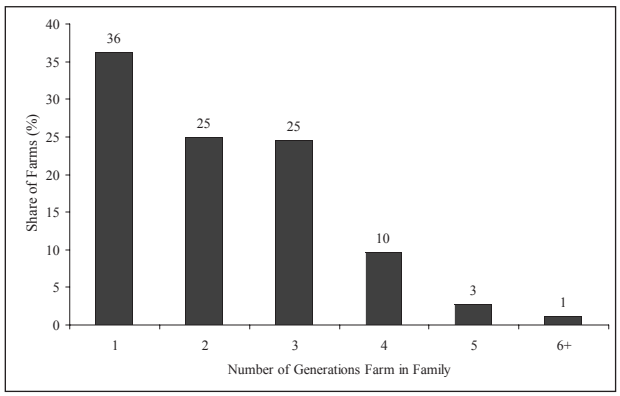
While the percent of farmers sampled varied by state, each state's sample was stratified by whether a farm's annual gross sales was less than or greater than $100,000. Farms with sales greater than $100,000 were sampled at a higher rate to insure that a sufficient number of responses were obtained from them. The use of $100,000 to delineate the sample strata was a statistical decision made by the committee responsible for coordinating the survey across participating states. Additional details on the survey methodology are available in Lubben et al. (2001).

The survey data obtained for Georgia were excluded from this study because of an insufficient number of respondents (three) who reported farm sales less than $100,000. In total, 13,222 surveys were useable for this study. Each state's responses were weighted according to its sampling methodology to generate population estimates for the state. The state estimates were then summed to obtain estimates for the 26 states as a group.

Survey Results

The survey respondents classified 36 percent of their farms as first generation farms (see Figure 2). The share classified as third-and-higher generation farms was only slightly larger (39 percent). Moreover, only ten, three, and one percent of the farms were classified as fourth, fifth, and six plus generations, respectively. This distribution suggests that the attrition rate of farms across family generations is likely to be substantial.

Figure 2. Distribution of Farms by Number of Generations the Farm Has Been in a Family, 26 States, U.S., 2001



Source: Original calculations

The discussion that follows examines the relationship between number of generations and farm attributes. The distribution of the attributes chosen for discussion differed significantly across first, second, and third-and-higher generation farms at the 99 percent level of statistical confidence. Third-and-higher generation farms were combined because they had similar distributions.

Table 1. Distribution of Gross Farm Sales by Number of Generations the Farm has been in a Family, 26 States, U.S., 2001

Gross Farm Sales[1]	Number of Generations Farm in Family		
	1	**2**	**3 or more**
	(%)	(%)	(%)
Under $10,000	41.6	27.8	17.5
$10,000 - $49,999	32.4	34.1	31.6
$50,000 - $99,999	15.6	20.7	26.1
$100,000 - $249,999	6	9.7	13.8
$250,000 - $499,999	2.5	4.5	6.5
$500,000 - $999,999	1	1.9	2.7
$1,000,000 and over	0.9	1.3	1.8
Total	100	100	100

1. Gross farm sales include government loan program benefits (commodity loans and loan deficiency payments).

Table 2. Distribution of Family Income Earned from Farming, by Number of Generations the Farm has been in a Family, 26 States, U.S., 2001

Share of Family Income	Number of Generations		
	1	2	3 or more
	(%)	(%)	(%)
Less than 25%	58.9	41.5	31.3
26% - 50%	14.6	18.2	18.7
51% - 75%	9.5	12.2	16.2
76% - 100%	17	28.1	33.8
Total	100	100	100

Table 3. Distribution of Cash Receipts by Farm Commodity Group and Number of Generations the Farm has been in a family, 26 States, U.S., 2001

Farm Commodity Group	Number of Generations Farm in Family		
	1	2	3 or more
	(%)	(%)	(%)
Cotton	1.1	2.1	2.8
Dairy	4.3	5.2	4.3
Grains[1]	17.1	25.7	31.9
Oilseeds	4.6	6.0	9.3
Peanuts, Sugar, and Tobacco	1.6	2.7	3.2
Forages	6.8	4.9	4.2
Fruits, Nuts, and Vegetables	5.1	4.9	3.8
Livestock[2]	45.1	40.8	36.0
Other Farm Commodities	14.3	7.7	4.5
Total	100.0	100.0	100.0

[1] Includes feed grains, rice, and wheat
[2] Includes beef, hogs, poultry and poultry products, and sheep

Source for Tables 1 – 3: Original calculations

Farms that had been in a family for three or more generations were generally larger and more dependent on the farm as a source of family income than were second and, especially, first generation farms. Twenty-five percent of third-and-higher generation farms reported farm sales of $100,000 or more. Only 17 percent of second generation farms and 10 percent of first generation farms reported sales this large (see Table 1). Half of third-and-higher generation farms provided a majority of the family's income. The comparable figures were 40 percent and 27 percent for second and first generation farms, respectively (see Table 2).

Higher generation farms were more dependent on farm program crops (cotton, grains, oilseeds, peanuts, sugar, and tobacco). On average, program crops accounted for 47 percent, 37 percent, and 24 percent of farm sales for third-and-higher, second, and first generation farms, respectively (see Table 3). Second, and especially, first generation farms were more dependent on livestock and the group "other farm commodities."

Summary and Conclusions

Thirty-nine percent of farmers surveyed in 26 states during the spring of 2001 reported that their farm had been in the family for three or more generations. On average, the third-and-higher generation farms were larger than first and second generation farms. This finding implies a tendency for today's larger farms to have been built via the transfer of capital across generations. This growth mechanism differentiates U.S. farming from most other U.S. industries. The latter tend to rely on outside equity to finance growth.

The previous discussion notwithstanding, intergenerational transfer of a farm may not occur for many reasons, including the absence of children and the decision by children and other relatives not to farm. Moreover, the transfer may not be successful even if a family member wants to farm and is left a large physical capital base by parents and grandparents. Specifically, the next generation may not possess the managerial and entrepreneurial skills needed to survive in the competitive market that is the U.S. farm sector. The authors hypothesize that it is more difficult to transfer human capital than physical capital across generations. Thus, farmers who plan on leaving the farm to the next generation, and their advisors, should give

considerable thought to developing managerial and entrepreneurial skills in the next generation.

First generation farms were more dependent on non-farm income than are higher generation farms. This finding is consistent with the argument that, by providing a source of capital, non-farm income can be an entry route into farming. Thus, entry barriers into farming are probably less than commonly presumed by those who emphasize the role of inheritance. An implication is that the future supply of farm operators is significantly larger than the sons and daughters of existing farmers, mitigating concerns about replacing the aging U.S. farm operator population.

Farm program crops accounted for a higher share of sales on third-and-higher generation farms. This finding raises an intriguing question: "Have farm programs improved the probability that farms survive across generations?" First generation farms, in contrast, were more dependent on livestock and the other farm commodities sales categories. The latter suggests that first generation farmers may be more willing to take entrepreneurial risks . Some, and maybe many, first generation farmers are not entering farming to compete with producers of program crops, but instead are seeking new farm product niches.

While farm culture emphasizes the role of family generations, first generation farms occupy an important place in the U.S. farm sector. They accounted for over one-third of farms. Ten percent of first generation farms reported sales in excess of $100,000. Furthermore, the different experiences and attributes of first generation farms suggested that they are likely to need different managerial services than higher generation farms. Thus, providers of farm management services may generate new opportunities by segmenting into different market niches farms that differ by generation in farming.

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