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# Understanding U.S. Farm Exits

Robert A. Hoppe and Penni Korb



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## Abstract

The rate at which U.S. farms go out of business, or exit farming, is about 9 or 10 percent per year, comparable to exit rates for nonfarm small businesses in the United States. U.S. farms have not disappeared because the rate of entry into farming is nearly as high as the exit rate. The relatively stable farm count since the 1970s reflects exits and entries essentially in balance. The probability of exit is higher for recent entrants than for older, more established farms. Farms operated by Blacks are more likely to exit than those operated by Whites, but the gap between Black and White exit probabilities has declined substantially since the 1980s. Exit probabilities differ by specialization, with beef farms less likely to exit than cash grain or hog farms.

**Keywords:** 1997 Census of Agriculture Longitudinal File, farm exit, farm entry, farm structure, farm operator characteristics, farm operator life cycle

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## Summary

About 717,100 farms in the U.S. went out of business—or exited—between 1992 and 1997. But the total number of farms declined by just 13,400 because the number of entries (703,700 farms) nearly equaled exits. In fact, the farm count has remained relatively stable since the 1974 Census, reflecting exits and entries essentially in balance.

Understanding farm exits is important for three reasons. First, knowing which types of farms are most likely to exit might be useful to policy-makers interested in the effects of exits on exiting farmers, the remaining farms, and farm communities. Second, exits help reallocate resources between farming and other economic activities and within the farm sector itself. Third, farm exits—and farm entries—may play an important role in introducing technologies and productivity growth, as in other industries.

### What Is the Issue?

U.S. farm numbers have been relatively stable between agricultural censuses in recent decades, but beneath the surface, farming is a much more dynamic industry than the farm count indicates. The relatively small net change in farm numbers masks substantial turnover in farms. Knowing the underlying socioeconomic components of this turnover provides a more thorough understanding of exits and gives other researchers a method of predicting exits.

### What Did the Study Find?

U.S. farm exit rates are 9-10 percent per year, within 1 percentage point of those for all U.S. small nonfarm businesses with no employees. Small businesses have a high exit rate, and most U.S. farms are small businesses. U.S. farms and other small businesses have not disappeared completely because entry rates as well as exit rates are high.

We studied two fundamental drivers of farm exits, farm size and operator age. The life cycle of farm operators is important in understanding farm exits because most U.S. farms are fairly small family businesses and the life of the farm is correlated with the life of the farmer. The correlation is not 100 percent because the farm may continue as a business after an elderly operator leaves, if operation of the farm as a separate business continues under another operator, such as an adult child. The results show the following:

- Exit rates decline as farm size (measured by sales) increases.
- Nevertheless, exit rates are still 6-7 percent for large farms (sales of \$250,000 or more).
- The exit rate initially declines with age until it reaches 8-9 percent for farmers between 45 and 54 years of age.
- The rate then increases and peaks at 12-13 percent for farmers who are at least 65 years old.

Because the operator's age and farm size are important determinants of farm exits, the report uses logistic regression models to estimate exit probabilities, which control for these factors. Two of the most striking findings from the study—the narrowing gap in the probability of exit between Black- and White-operated farms and the relationship between exit probability and the age of the farm business—emerged when we examined the effect of other farm and operator characteristics on exit probabilities:

- Exit probabilities between the 1992 and 1997 Censuses are 5-7 percentage points higher for Black-operated farms than for White-operated farms, depending on sales class and operator age. These Black/White differences represent a substantial decline from the 1982-87 intercensus period, when exit probabilities were 9-10 percentage points higher for Black-operated farms.
- Exit probability is inversely related to business age; it is substantially higher for recent entries than for older, more established farms.
- Exit probability is particularly low for large farms that are at least 14 years old and operated by farmers who are younger than 65. The lower exit probability for these large, well-established farms may help explain the growing concentration of production among fewer farms, particularly if the farms are passed on to other family members and continue in operation.

## **How Was the Study Conducted?**

This study used data from the 1997 Census of Agriculture Longitudinal File to analyze the forces that drive farm exits. USDA's National Agricultural Statistics Service created the longitudinal file from five agricultural censuses to follow individual farms between 1978 and 1997. Data from the longitudinal file were used to calculate exit rates for farms in different sales classes and with operators in different age groups. These data were also used in logistic regression models to estimate exit probabilities, controlling for operator age and farm size. This study provides a straightforward procedure for estimating exit probabilities that can be applied to any group of farms.