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Exploring Alternative Farm Definitions

Implications for Agricultural Statistics and Program Eligibility

Erik J. O'Donoghue, Robert A. Hoppe,
David E. Banker, and Penni Korb





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**Erik J. O'Donoghue, Robert A. Hoppe,
David E. Banker, and Penni Korb**

Abstract

Meeting agricultural policy and statistical goals requires a definition of U.S. agriculture's basic unit, the farm. However, these goals can be at odds with one another. USDA defines "farm" very broadly to comprehensively measure agricultural activity. Consequently, most establishments classified as farms in the United States produce very little, while most production occurs on a small number of much larger operations. While desirable for obtaining comprehensive national coverage, measurement and analysis based on the current definition can provide misleading characterizations of farms and farm structure in the United States. Additionally, more stringent requirements have been proposed for farms to qualify for Federal agricultural program benefits. This analysis outlines the structure of U.S. farms, discusses the current farm definition, evaluates several potential criteria that have been proposed to define target farms more precisely, and examines how these criteria affect both statistical coverage and program eligibility.

Keywords: Agricultural statistics, Agricultural Resource Management Survey (ARMS), farm businesses, farm definition, program eligibility

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Contents

Summary. iii

Introduction 1

Farm Definition Matters for Statistics and Federal Programs 2

 What Defines a Farm in USDA Statistics? 3

 How Are U.S. Farms Characterized? 5

What Kinds of Screens Might Capture Active Farming? 15

 Farm Sales. 17

 Share of Income From Farming 19

 Off-Farm Income 21

 Family Farm Definitions. 22

 Alternative Family Farm Criteria 23

 The Screens and Family Farm Definitions 27

Conclusion 31

References. 33

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Summary

Meeting agricultural policy and statistical goals requires a definition of agriculture's basic unit, the farm. USDA defines "farm" very broadly to comprehensively measure agricultural activity. Consequently, most establishments classified as farms in the United States produce little output, while most production occurs on a small number of much larger operations.

What Is the Issue?

The current farm definition, while desirable for obtaining extensive national coverage, can provide misleading characterizations of U.S. farms and farm structure. Additionally, concerns have been raised that current farm (and farmer) definitions are too inclusive, making some producers with marginal involvement in agriculture eligible for Federal aid. Consequently, policy-makers have proposed several criteria to restrict Federal assistance eligibility.

What Did the Study Find?

The vast majority of U.S. farms together contribute a small share of total agricultural production, while relatively few farms produce the bulk of crops and livestock. The 2006 Agricultural Resource Management Survey (ARMS) showed that an estimated 75 percent of all farms each sold less than \$50,000 worth of agricultural products. These farms together:

- generated less than 6 percent of total U.S. gross agricultural sales
- operated about 25 percent of the acres used in farming
- incurred less than 15 percent of the total cash expenses used to operate farms in the United States.

Over 440,000 of those farms (more than 1 out of every 5 farms in the United States) realized less than \$1,000 in sales in 2006.

By contrast, fewer than 10 percent of U.S. farms generated at least \$250,000 in sales in 2006. Yet these farms:

- generated more than 75 percent of all U.S. gross agricultural sales
- operated more than 40 percent of all acres used in farming
- incurred two-thirds of all U.S. farms' cash expenses.

Because USDA's broad definition includes such a wide variety of farms, care should be taken when interpreting aggregate agricultural statistics.

Additionally, a broad farm definition does not help policymakers target Federal assistance at farms and producers actively engaged in agricultural production. Narrower definitions increase the likelihood that policymakers can achieve goals such as establishing price and farm income support, providing support to beginning farmers to increase U.S. agriculture's future viability, and protecting and preserving natural resources.

Accordingly, policymakers have proposed three main screens to restrict Federal assistance to achieve these goals better. Noting that operators heavily

engaged in farming usually generate high levels of sales and low levels of off-farm income, policymakers suggested grouping farms by sales levels (a sales screen), shares of household income derived from farming (a farm-income screen), and levels of off-farm income generated (an off-farm income screen).

However, potential drawbacks exist. Some farmers, while heavily engaged in farming activities, may only generate low levels of output or sales. For example, establishing an apple orchard requires growing trees for several years before fruit harvesting can begin. Additionally, inclement weather or livestock diseases can cause substantial production losses. Farmers also may choose to place products into inventory rather than sell them.

Calculating household incomes generates further concerns. Farmers with major recent expenses can have positive cash flows but negative net farm incomes. Additionally, off-farm income does not always indicate the household’s level of involvement in agriculture. For example, almost 22 percent of operators with households generating at least \$100,000 of off-farm income described their principal occupation as “farm or ranch work.” Off-farm businesses may also incur significant expenses and losses that can lower total net off-farm incomes, reducing the household’s apparent reliance on off-farm income. In 2006, roughly 14 percent of farm operators with off-farm income below \$1,000 described their principal occupation as “work other than farming/ranching,” while another 11 percent considered themselves “not in the paid workforce.”

Since the early 1980s, agricultural production has shifted dramatically to larger farms. As size increases, so does farm complexity, often leading to greater reliance on hired labor, rented equipment and land, and more intricate ownership arrangements. These trends have raised concerns among some that large, corporate farms are replacing the family farm and that farm program payments are not doing enough to preserve the family-farm structure of U.S. agriculture. Despite numerous organizations interpreting the term “family farm” differently, the majority of all U.S. farms, including some of the very largest farms, still qualify as family farms. Use of the screens discussed above could highlight potential conflicts between the goals of supporting family farms and restricting assistance to actively engaged farmers. Restricting Federal assistance only to those whose farm provided most of their household income could disqualify large shares of family farms from Federal aid (see table below).

How various criteria would have affected Federal aid eligibility for family farms in 2006

If eligibility had been contingent on:	Share of family farms that would have been disqualified	Share of family farm sales by the disqualified group
Farm income provides at least 50% of household income	82-87%	30-40%
Annual farm sales of at least \$10,000	58-70%	<4%
Annual off-farm income does not exceed \$100,000	18-20%	10-15%

How Was The Study Conducted?

The National Agricultural Statistics Service (NASS) and the Economic Research Service (ERS) jointly design and administer multiple surveys annually, known collectively as USDA's Agricultural Resource Management Survey (ARMS), which covers U.S. farming operations in the 48 contiguous States. This report focuses on the 2006 ARMS Phase III, which collected detailed information on farm operations and farm households from 21,700 respondents.

Particularly relevant to this report are ARMS data on acres operated, cash expenses, conservation practices, government payments, gross sales, household income, off-farm income, and characteristics of the farm, household, and operator. ARMS also sorts farms into sales categories, enabling the examination of data by sales class to provide a clearer picture of the structure of U.S. agriculture.