

# **Farm competitiveness: lessons from diversity**

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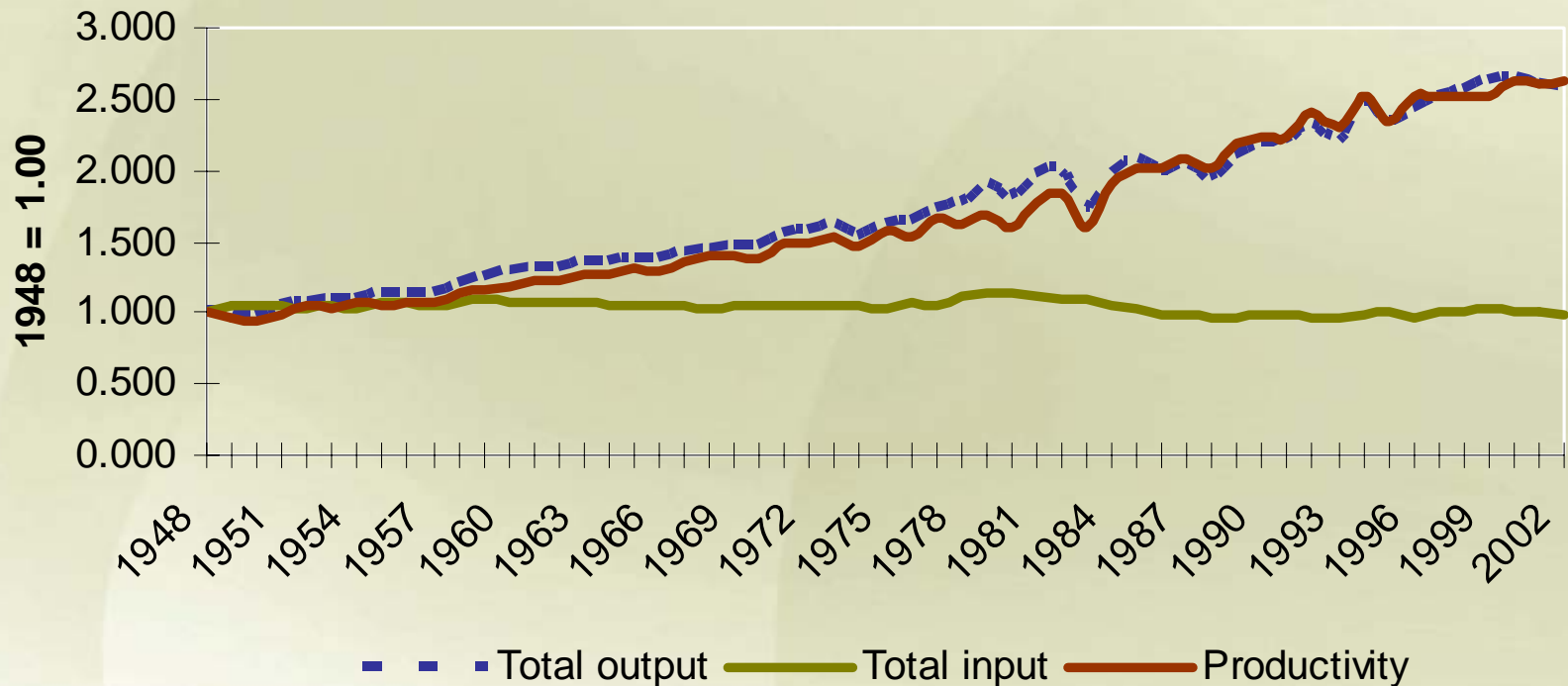
# Overview

- **Long run trends**
  - Technology
  - Economic integration
- **Farmer responses**
  - Farm size, specialization
  - Integration with nonfarm economy
  - Management
- **Lessons from diversity**



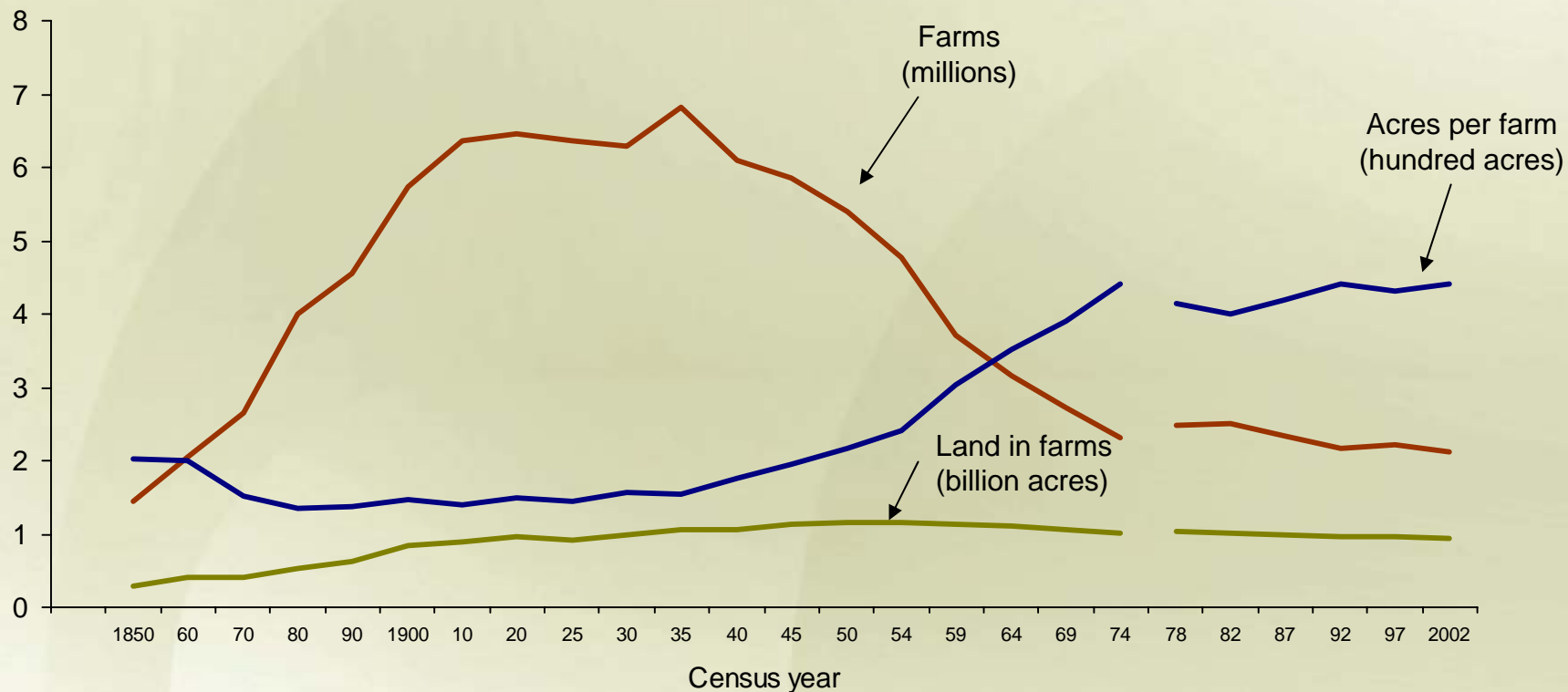
# Productivity growth drives increased output

Total output, input & productivity, 1948- 2002



# Farm size increases, farm numbers decrease

Farms, land in farms, and average acres per farm, 1850-2002



Note: The break in the lines after 1974 reflects the introduction of an adjustment to estimates of the farm count and land in farms. Beginning in 1978, the data are adjusted to compensate for undercoverage by the census of agriculture. For more information, see Allen (2004).

Source: USDA, Economic Research Service, compiled from Census of Agriculture data.



# Farmer responses

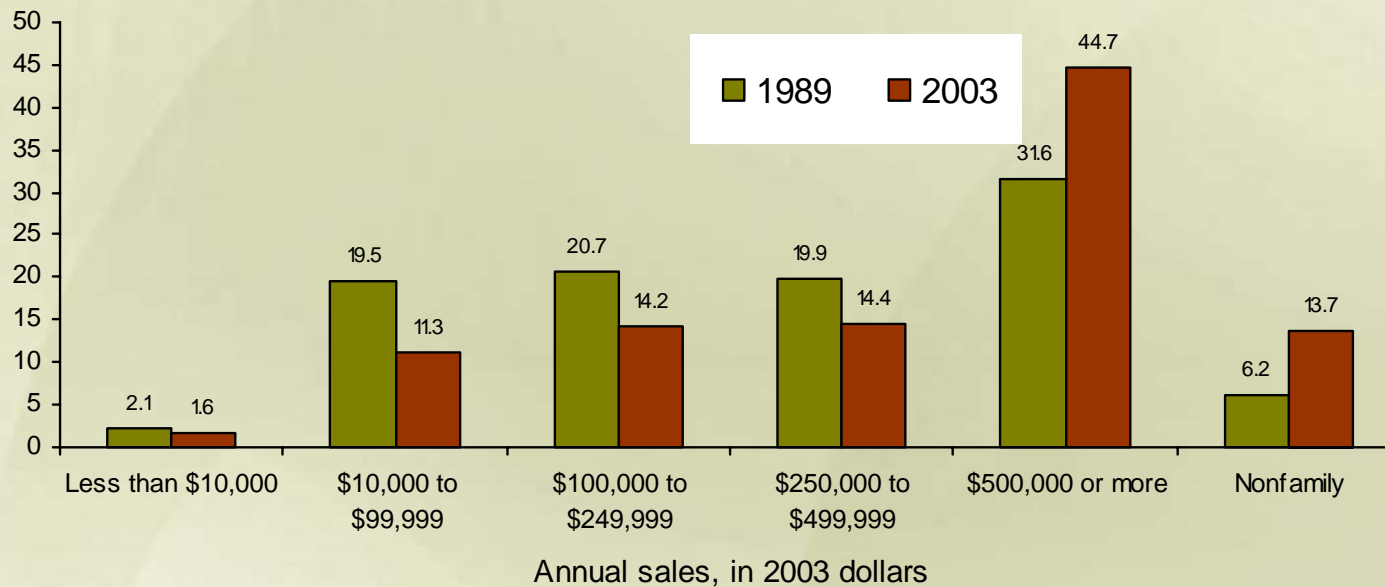
Year	Products per farm (number)	Off-farm work (%F-HH)
1900	5.1	na
1930	4.5	100 days
1945	4.6	27
1970	2.7	54
2000/02	1.3	93



# Large farms continue to expand and grow

## Share of total value of production, by sales class, 1989 and 2003

Percent of total production



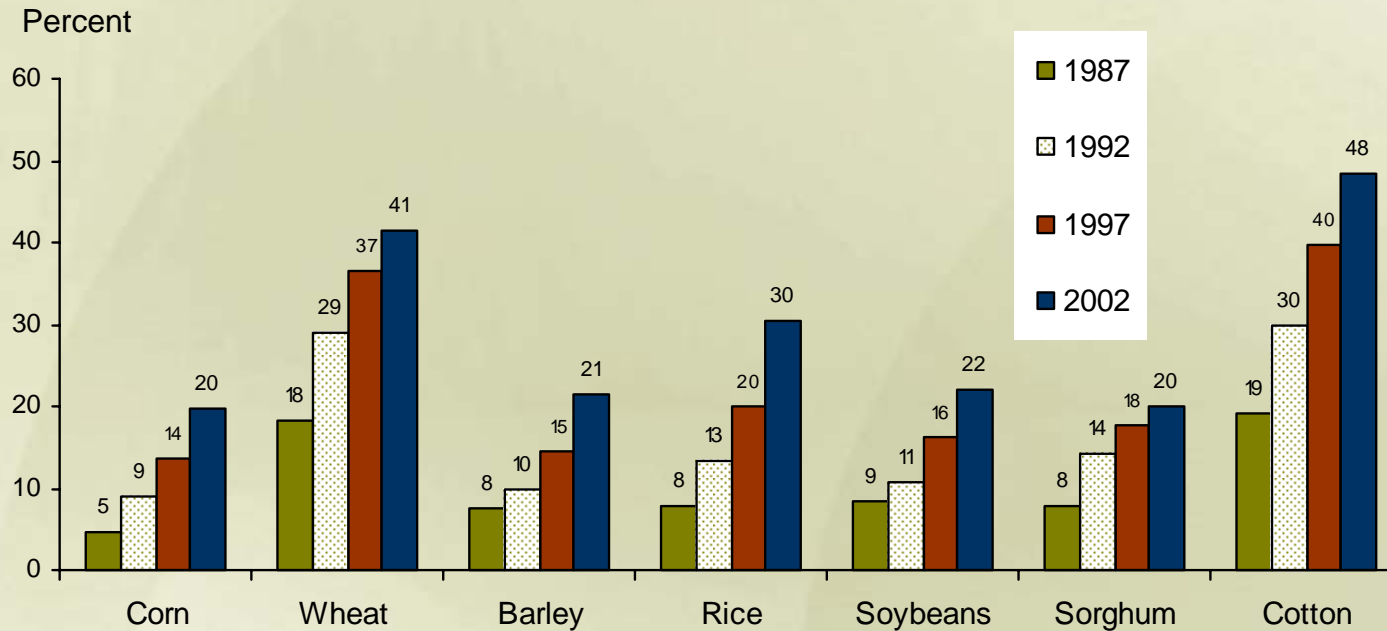
Note: The 1989 sales classes are defined in 2003 constant dollars. Sales were adjusted using the Producer Price Index (PPI) for farm products.

Source: USDA, Economic Research Service, 1989 Farm Costs and Returns Survey and 2003 Agricultural Resource Management Survey, Phase III.



# Farm size increases broadly

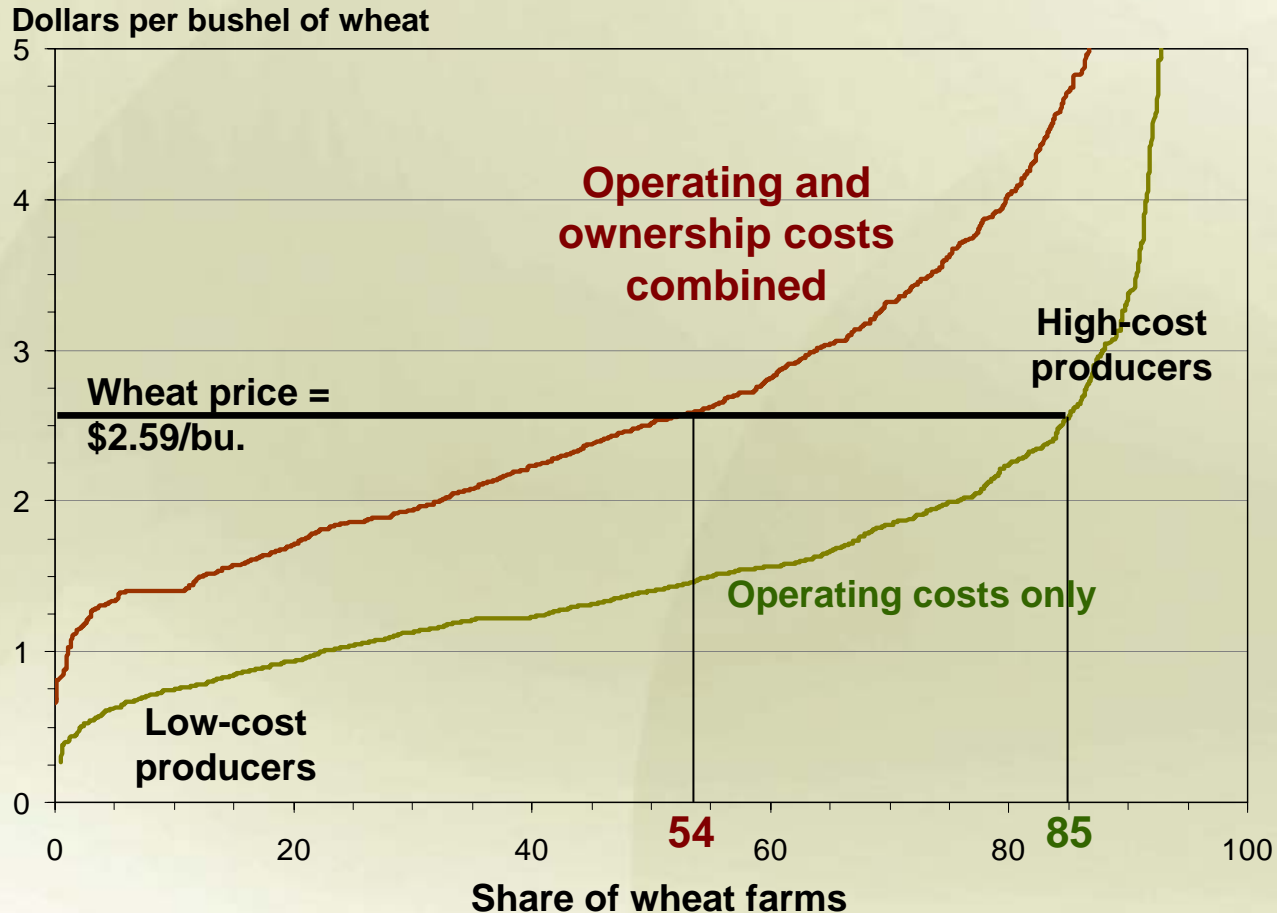
Harvested acreage in farms with at least 1,000 acres of the commodity



Source: 1987, 1992, 1997, and 2002 Census of Agriculture.



# Distribution of wheat unit production costs shows share of producers who cover costs

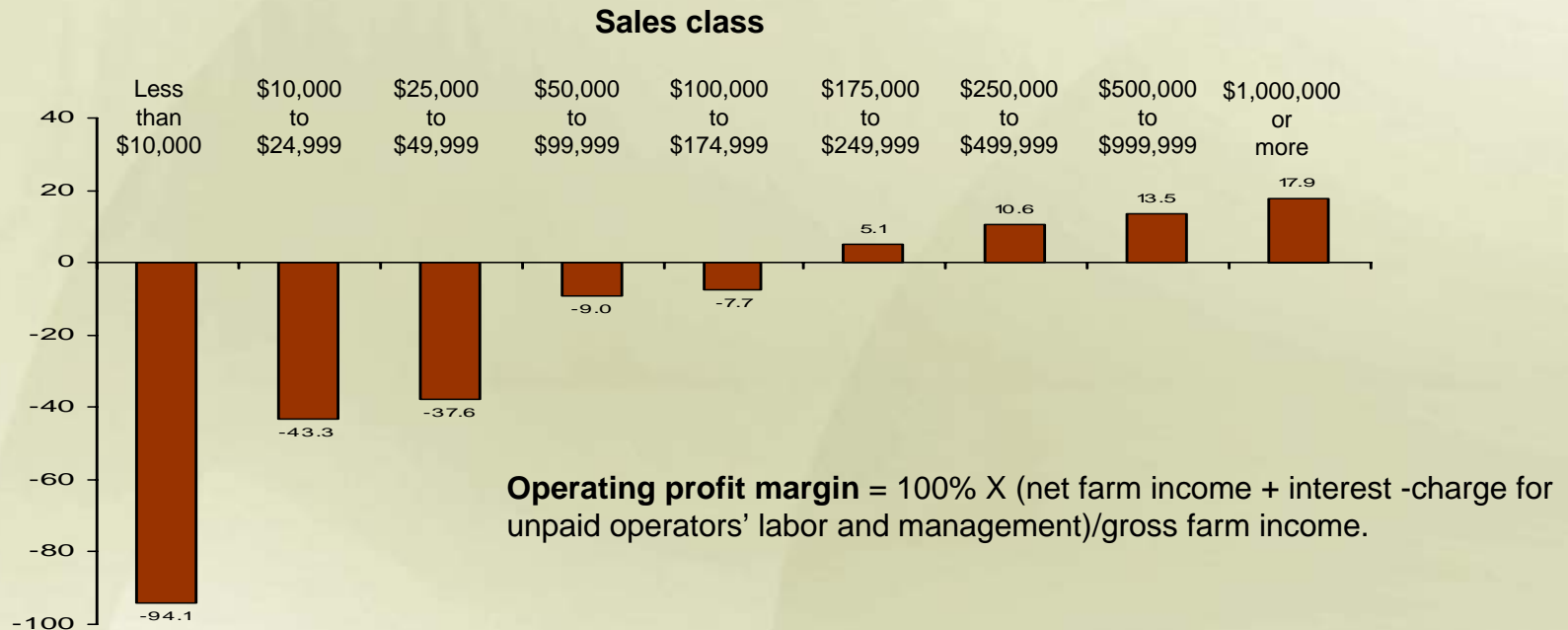


Source: Agricultural Resource Management Survey-1998 Wheat



# Profits increase with size

## Operating profit margin by sales class, 2003



\*Standard error is between 25 percent and 50 percent of the estimate.

\*\*Standard error is between 51 and 100 percent of the estimate.

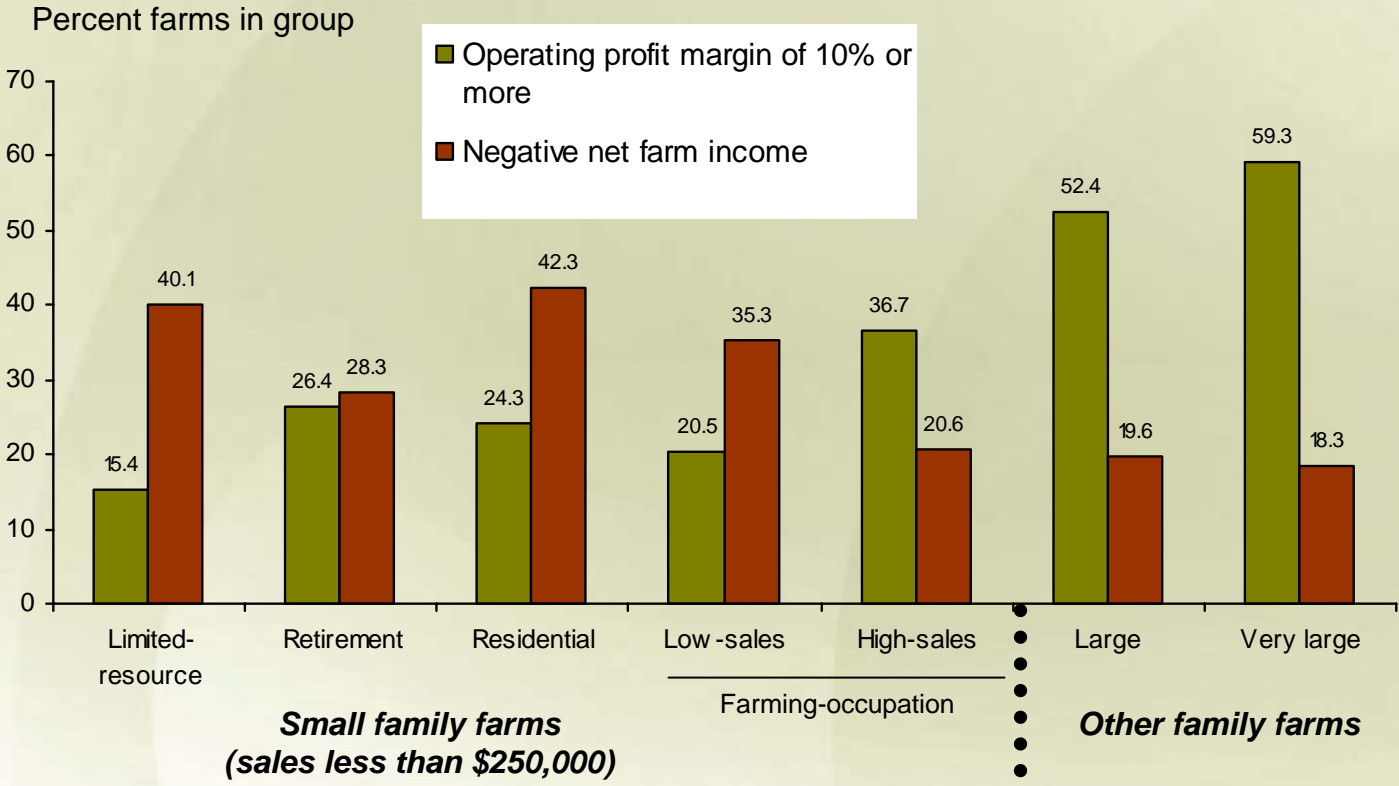
\*\*\*Standard error is between 126 percent and 150 percent of the estimate.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.



# All size farms earn profits & losses

**Selected measures of farm financial performance, 2003**



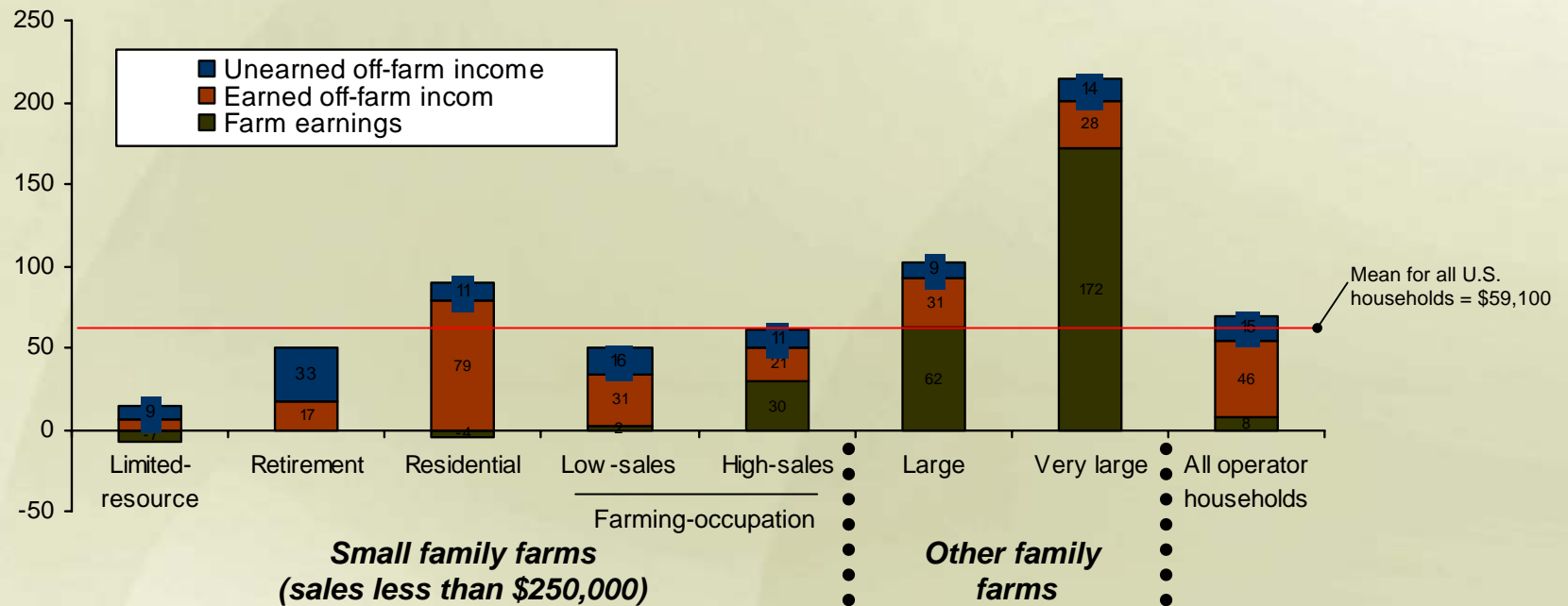
Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.



# Sources of farm household income vary

## Level and source of operator household income, 2003

Thousand dollars per household



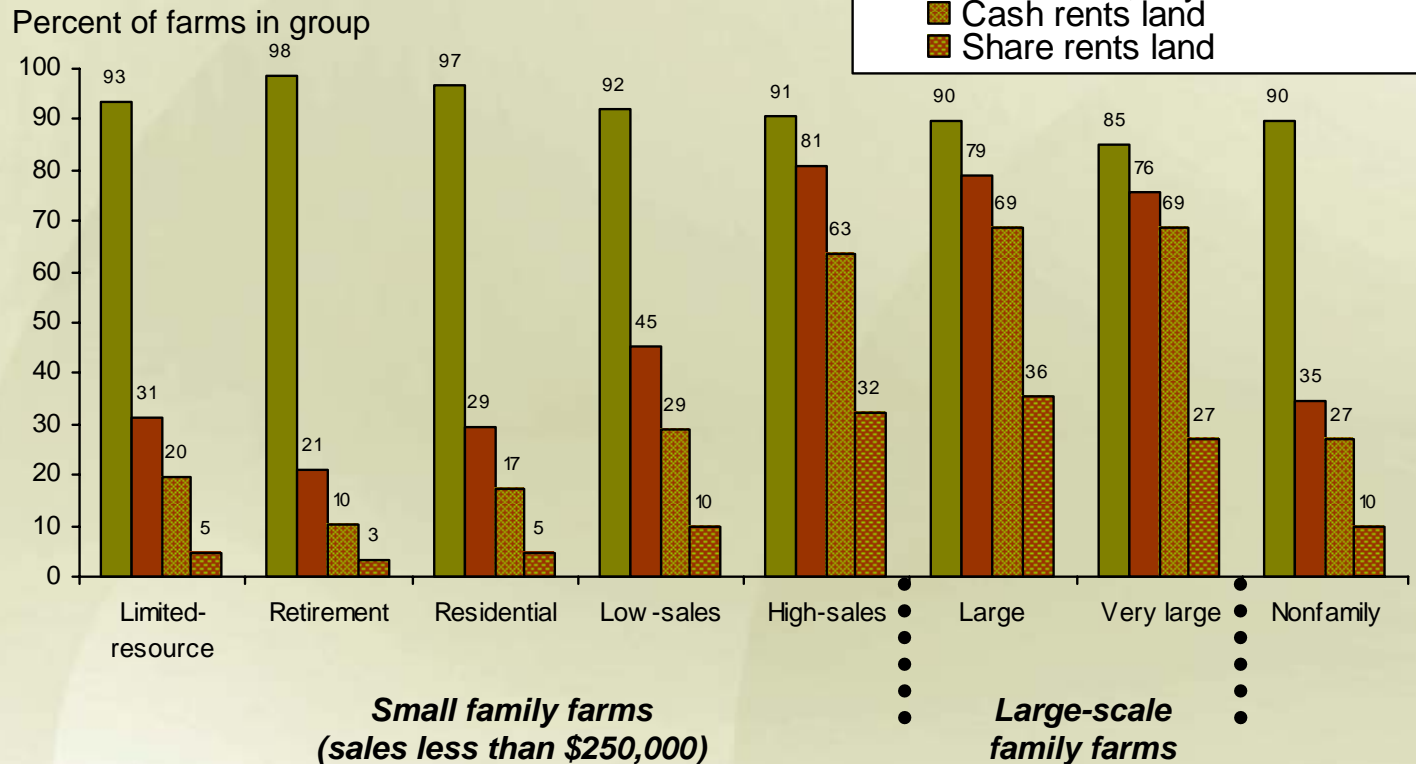
Note: Household income is estimated only for family farms.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III, for farm households. U.S. Bureau of the Census, 2004 Current Population Survey, 2004, for all U.S. households.



# Access to land varies

## Methods of accessing land, 2003



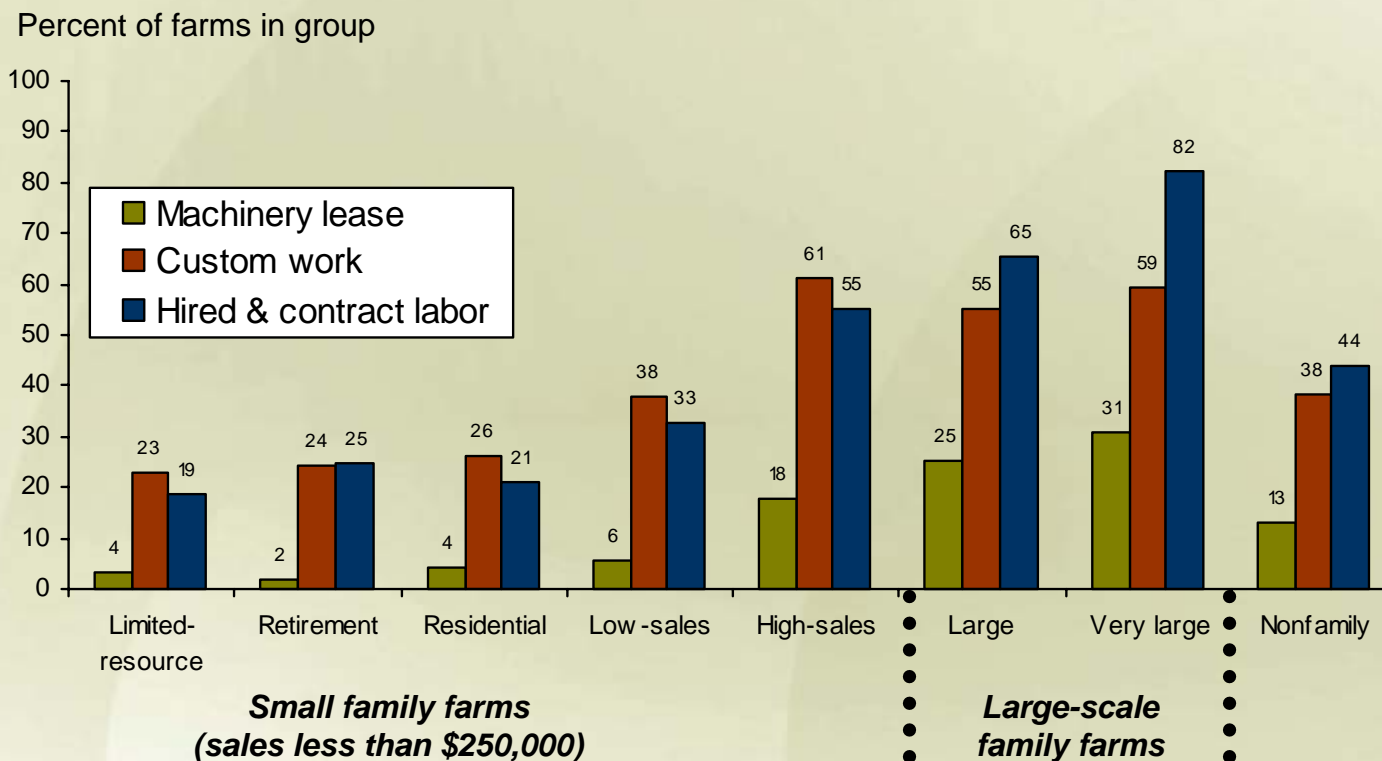
\* = Standard error is between 25 and 50 percent of the estimate.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.



# Input procurement varies

## Selected methods of input procurement, 2003



\* = Standard error is between 25 and 50 percent of the estimate.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.



# Experience matters

## Probability of exit by 1997 for farms operating in 1992



Source: Compiled by the Economic Research Service from the 1997 Census of Agriculture Longitudinal File.

Note: Data for farms in 1992, with operators under 45 years old



# What we do and don't know

- Profits correlated size
- Successful small farms: all products, all regions, all sizes
- No single strategy in terms of method of operation
- Experience matters
- Ongoing work to understand overall determinants of success



# For more ...

- ERS Website: [www.ers.usda.gov](http://www.ers.usda.gov)
- Farm Structure briefing room

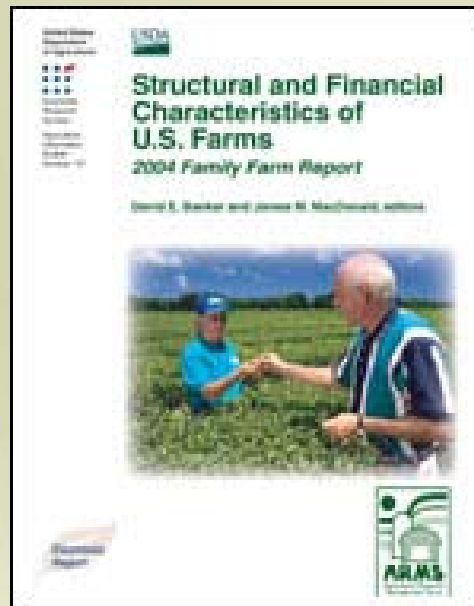
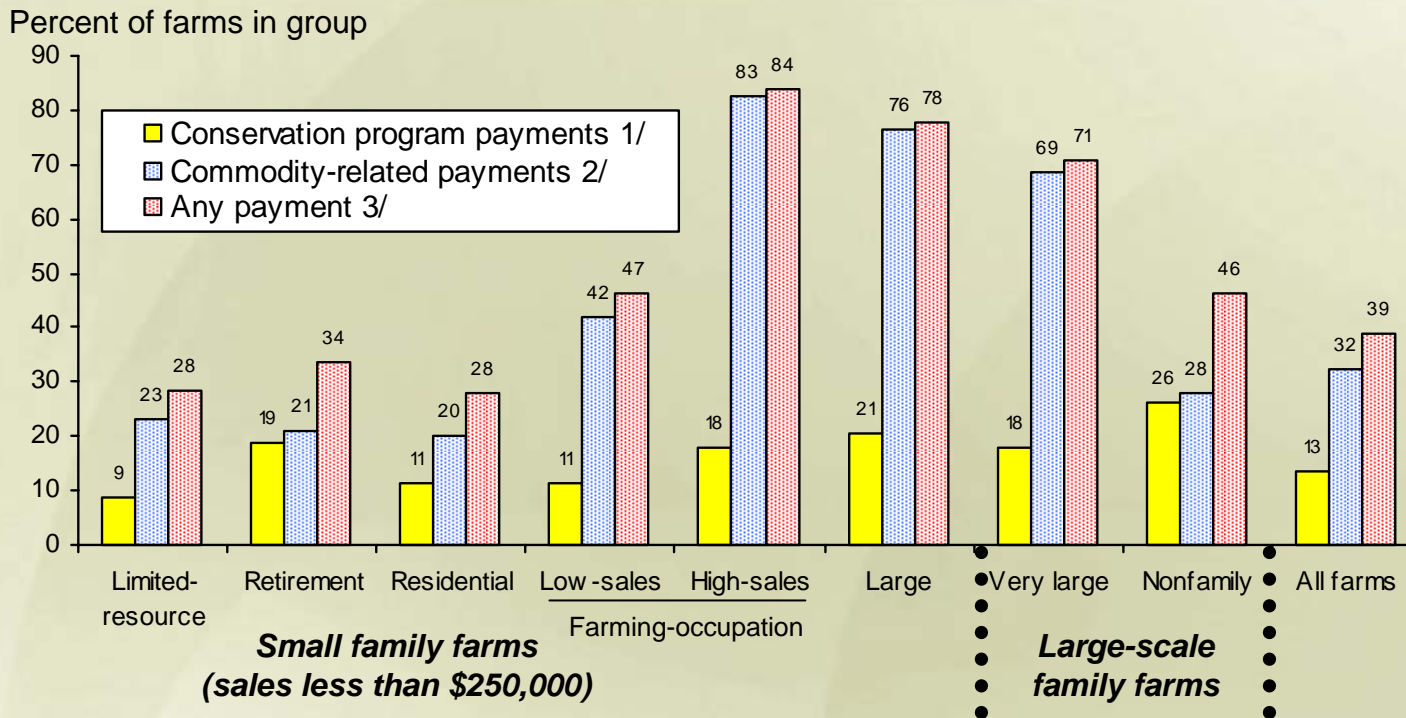


Figure 11

## Farms receiving payments from conservation or commodity programs, 2003

*Most high-sales, large, and very large farms receive payments from commodity programs*



<sup>1</sup>Payments from the Conservation Reserve Program (CRP), the Wetlands Reserve Program (WRP) and the Environmental Quality Incentive Program (EQIP).

<sup>2</sup>Direct payments, counter-cyclical payments, loan deficiency payments, marketing loan gains, net value of commodity certificates peanut quota buyout, milk income loss contract payments, et cetera.

<sup>3</sup>Receives payments from the conservation programs and/or commodity-related programs.

Source: USDA, Economic Research Service, 2003 Agricultural Resource Management Survey, Phase III.

