

Dairy Farm Financial Conditions

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Data Source



Agricultural Resource Management Survey (ARMS)

<http://www.ers.usda.gov/Briefing/ARMS/>

The screenshot shows the 'Briefing Rooms' section of the ERS website. The page title is 'Agricultural Resource Management Survey (ARMS)'. It features a search bar, a 'Browse by Subject' sidebar with categories like 'Animal Products', 'Countries & Regions', and 'Crops', and a main content area with an 'Overview' section. The overview text describes ARMS as an integrated data collection system that links farm business and household accounts. A 'Contents' sidebar on the right lists 'ARMS Briefing Room' and several frequently asked questions.

ARMS Data Products

<http://www.ers.usda.gov/data/arms/>

The screenshot shows the 'Data Sets' section of the ERS website. The page title is 'Farm Business and Household Survey Data: Customized Data Summaries from ARMS'. It includes a search bar, a 'Data Sets' header, and an 'Overview & Data' section. The overview text explains that the information comes from the annual ARMS survey, which provides data on farm households, production practices, and resource use. A 'Major Data Topics' section lists 'Farm Structure and Finance' as a key topic. A 'Contents' sidebar on the right lists 'Overview & Data', 'Farm Structure & Finance', 'Featured States', and 'Crop Production Practices'.



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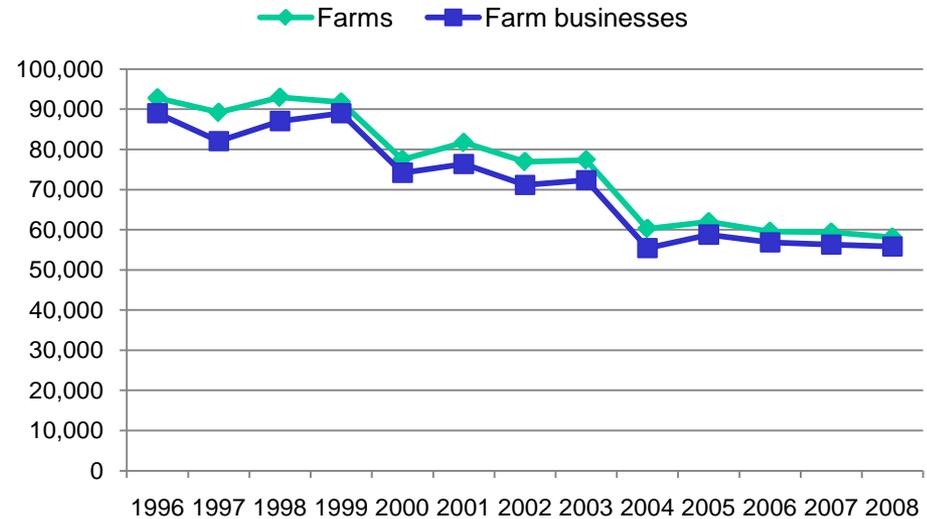
Dairy Farm Businesses



Farms where 50% or more of the total value of farm production comes from milk and dairy products

Defining Farm Businesses

The official USDA farm definition (an operation with \$1,000 of gross agricultural sales or the potential to generate such sales) encompasses a widely diverse 2.1 million operations. Farms vary in their level of business activity, resource allocation, goals, and a host of other attributes. ERS developed a typology of farms to categorize farms into more similar groups based on gross sales, major occupation, and total household earnings (for more information, see *Structure and Finances of U.S. Farms: Family Farm Report, 2007 Edition*, www.ers.usda.gov/Publications/EIB24). In order to concentrate analysis of business performance on those farms with significant labor allocation to farming and household dependence on business income, several of the farm typology classifications are excluded. These include limited-resource farms, retirement farms, and residential/lifestyle farms. A majority of these farms have negative business income and, as a result, depend on off-farm sources of income to support their household (see information in chapter 2). Farm businesses, for purposes of performance analysis, include the more than 800,000 remaining family and nonfamily farms who indicated that farming was the primary activity of the operator.



Source: *Agricultural Resource Management Survey*, USDA

Farm-level Partial Budgeting Model



- The model incorporates elements of income, and expenses to project cash flow. Totals for assets and debt are used to forecast major elements of the balance sheet and debt repayment ability. Parameters from the Short-term Forecast Model, the Baseline Model, and FAPSIM are used as input.
- Uses most recent Agricultural Resource Management Study (ARMS) as the base.
- Results can be summarized across various grouping of farms such as region, commodity specialization, or size categories.
- The model is static and therefore does not account for changes in crop rotation, weather, and other local production impacts that occurred after the base year.

<http://www.ers.usda.gov/Briefing/Farm Income/Businessincome.htm>

The screenshot shows the ERS website interface. At the top is the USDA logo and the text "United States Department of Agriculture Economic Research Service The Economics of Food, Farming, Natural Resources, and Rural America". Below this is a navigation menu with links for Home, About ERS, Briefing Rooms, Publications, Data Sets, Newsroom, Help, and Contact Us. A search bar is present with the text "Search ERS:" and a "Go" button. A "Browse by Subject:" section lists various categories like Animal Products, Countries & Regions, Crops, etc. The main content area is titled "Briefing Rooms" and "Farm Income and Costs: Farm Business Income". It features a table titled "Table 1--Farm Business Average Net Cash Income Forecasts 1/" with columns for years (2007, 2008, 2009f, 2010f, 2008/2007, 2009f/2008, 2010f/2009f) and a column for "Share of U.S. farms or businesses". The table includes rows for "Farm Size:" (Commercial farms, Intermediate farms, All farm businesses 2/), "Rural residence farms", "All farms", "All family farms 3/", and "Resource region: 2/" (Heartland).

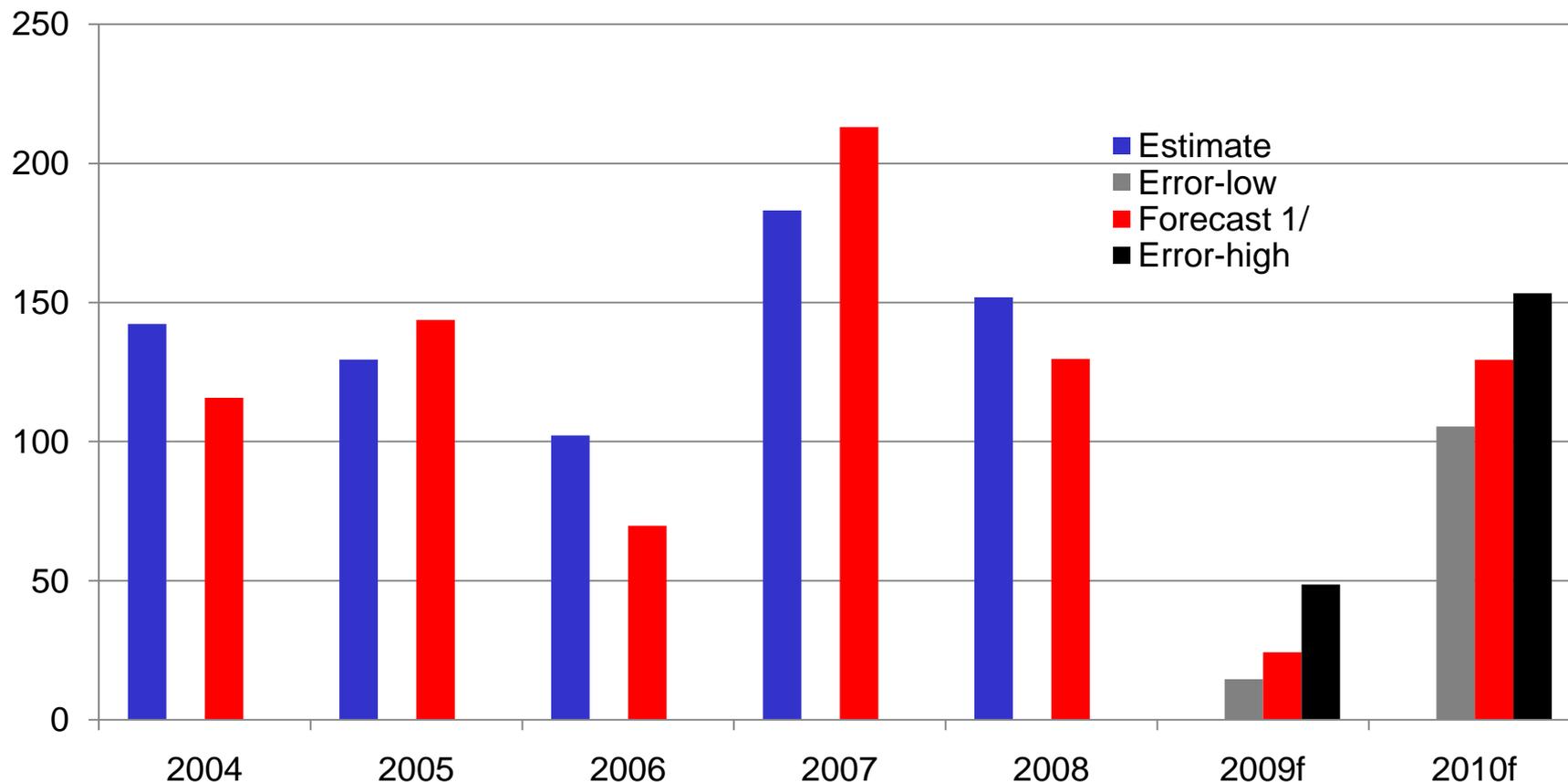
Size/ region/ specialty	2007	2008	2009f	2010f	2008/ 2007	2009f/ 2008	2010f/ 2009f	Share of U.S. farms or busi- nesses
01/06/2010 \$1,000 per farm Percent								
Farm Size:								
Commercial farms	230.8	205.2	184.9	205.7	-11.1	-9.9	11.2	12.4
Intermediate farms	5.5	5.3	5.0	6.3	-3.6	-5.7	26.0	26.6
All farm businesses 2/	77.7	68.9	62.2	69.8	-11.3	-9.7	12.2	39.0
Rural residence farms	-3.9	-3.9	-3.7	-3.5	-0.0	5.1	5.4	61.0
All farms	26.2	24.5	22.0	24.9	-6.5	-10.2	13.2	100.0
All family farms 3/	21.1	21.4	19.1	21.7	1.4	-10.7	13.6	97.2
Resource region: 2/								
Heartland	99.8	97.4	85.3	87.8	-2.4	-12.4	2.9	23.0



Average Dairy Farm Business Net Cash Income



Thousand dollars



1/ The farm level forecasts are derived from partial budget modeling on the 2008 ARMS using parameters from the sector forecasts. The model is static and therefore does not account for changes in crop rotation, weather, and other local production impacts that occurred after the base year.



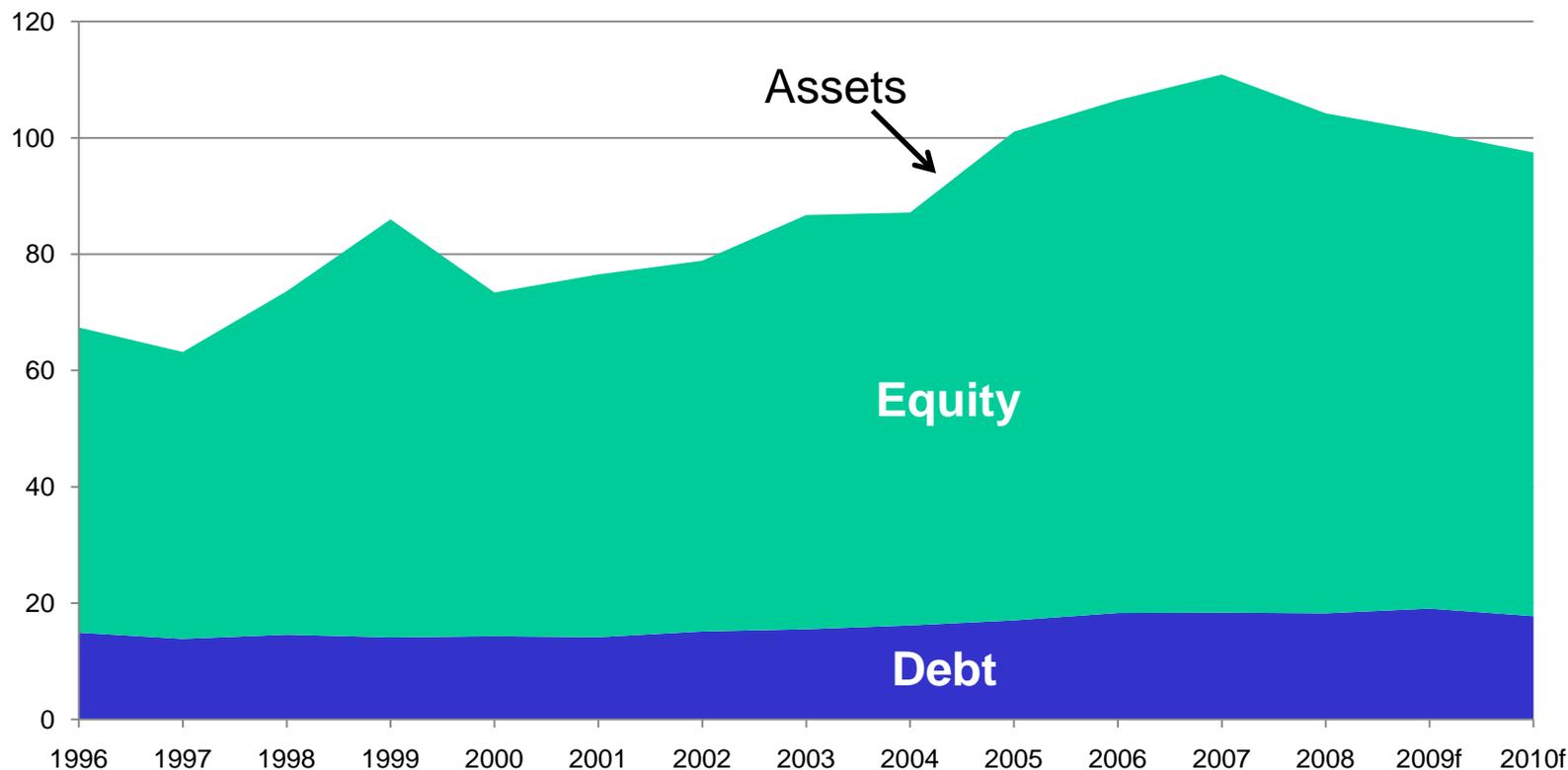
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Dairy Farm Business Assets, Debt, and Equity



\$ Billions



Source: *Agricultural Resource Management Survey*, USDA

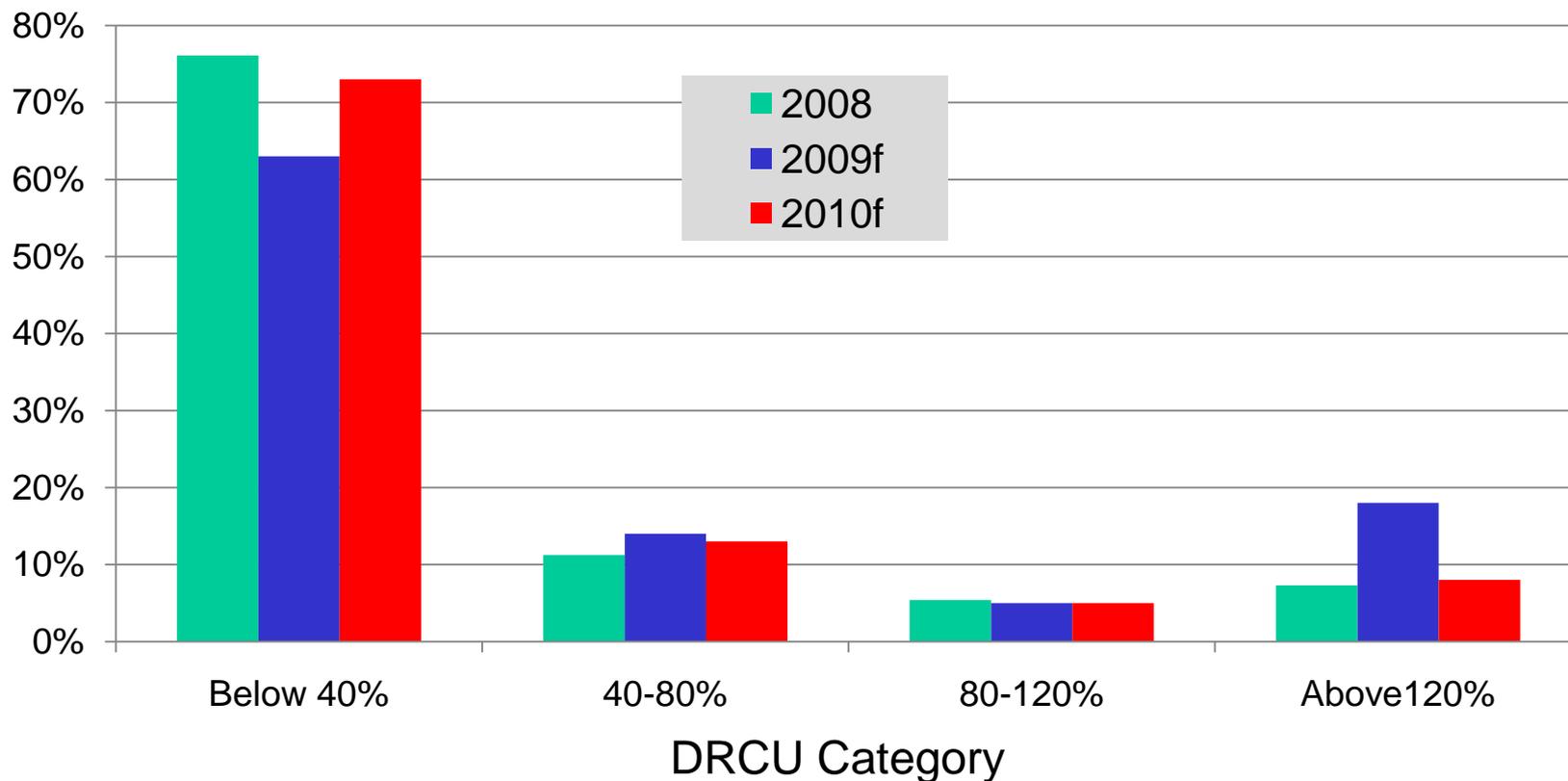


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Dairy Farm Business Debt Repayment

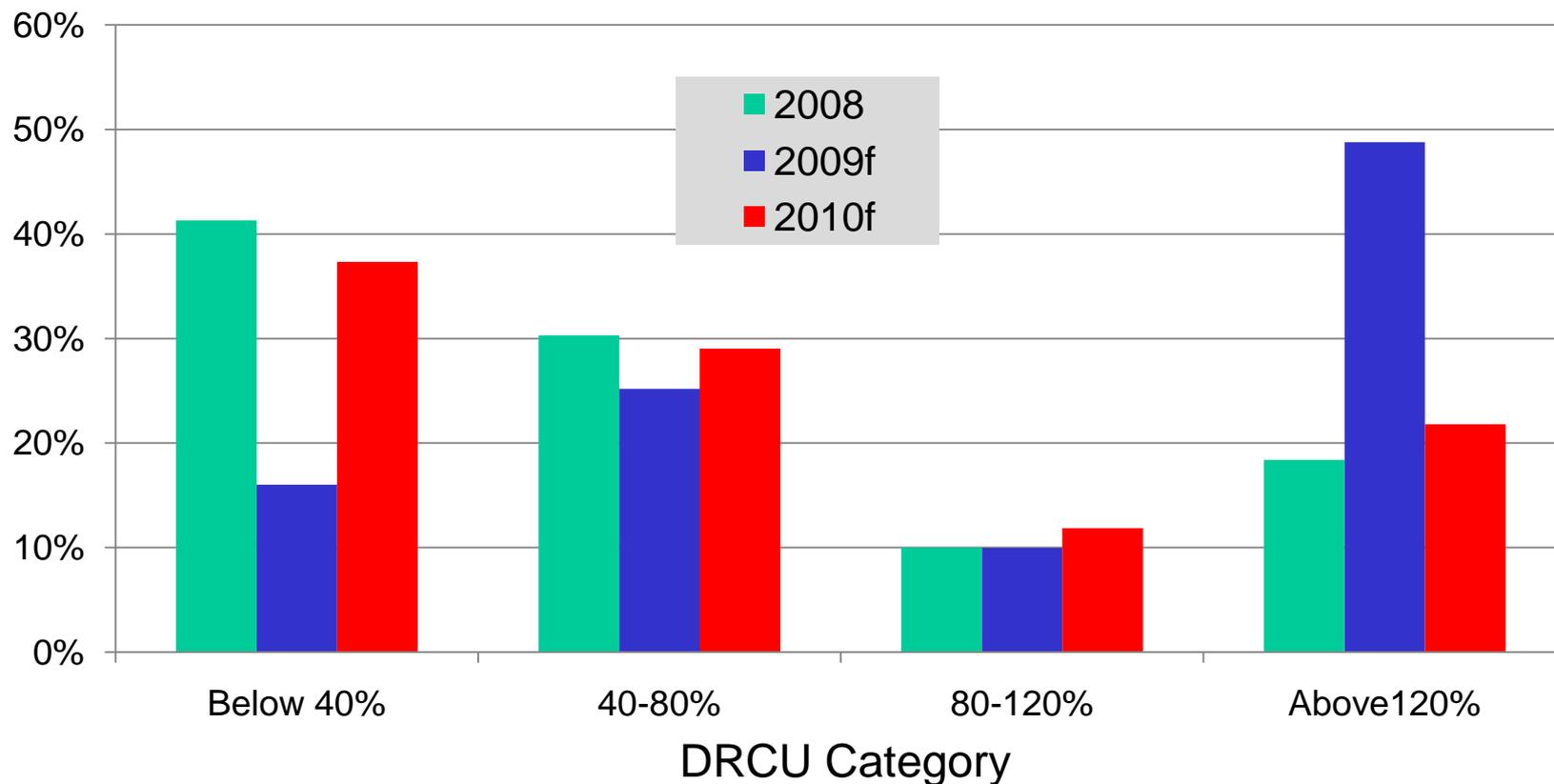
Distribution of FARMS by debt repayment capacity utilization category



Source: 2008 Agricultural Resource Management Survey, USDA. Forecasts are derived from partial budget modeling on the 2008 ARMS using parameters from the sector forecasts.

Dairy Farm Business Debt Repayment

Distribution of DEBT by debt repayment capacity utilization category



Source: 2008 *Agricultural Resource Management Survey*, USDA. Forecasts are derived from partial budget modeling on the 2008 ARMS using parameters from the sector forecasts.

Dairy Farm Business Economic Cost Ratio

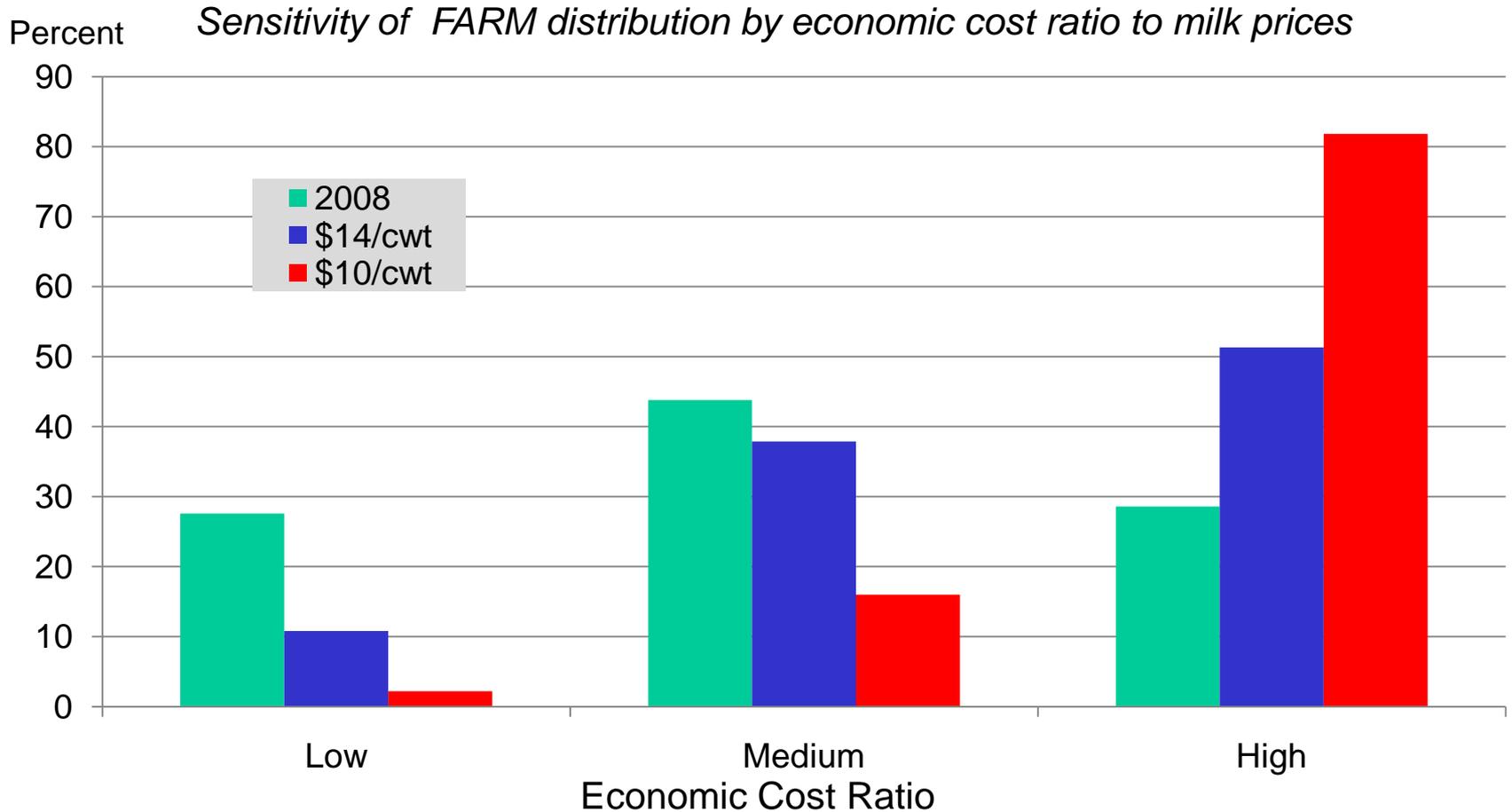


The *economic cost ratio* (ECR) gives the economic rather than accounting cost required to produce each dollar of agriculture's value of producing crops and livestock. Economic costs differ from accounting costs in that economic costs consider imputed costs, i.e.; the cost of the owner's own resources used in production. The ECR is defined here as:

$$\frac{(\text{Cash expenses} + \text{depreciation} + \text{noncash labor expenses} + \text{charge to management} + \text{charge to operator and unpaid labor} + \text{contractor reimbursed operating expenses}) \times 100}{\text{Value of production (excluding landlords' share)} + \text{government payments} + \text{insurance indemnities}}$$

The report "Economic Effects of U.S. Dairy Policy and Alternative Approaches to Milk Pricing" extended this approach to examine dairy farms.

Dairy Farm Business Long-run Viability



Source: 2008 Agricultural Resource Management Survey, USDA



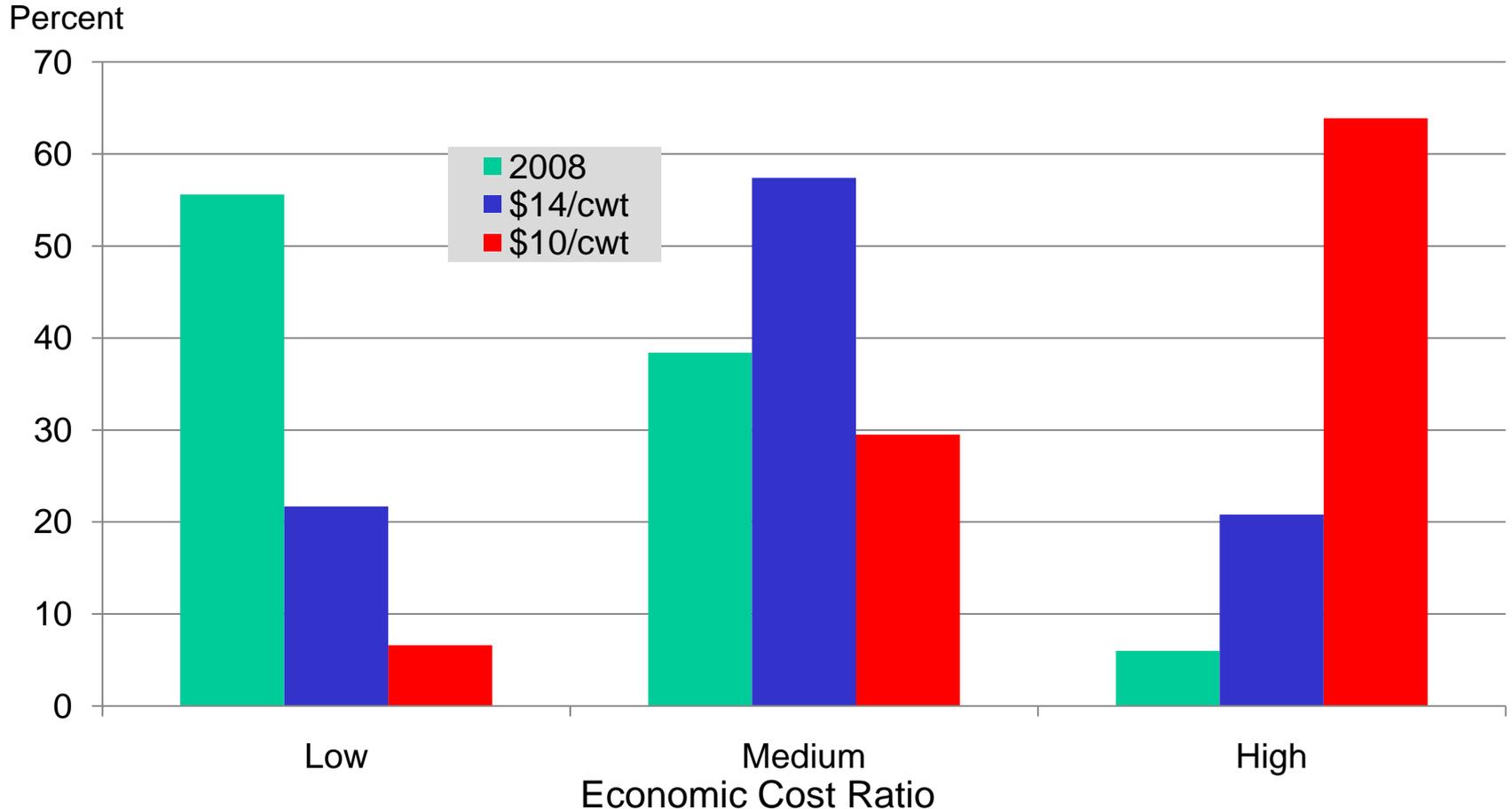
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Dairy Farm Business Long-run Viability



Sensitivity of PRODUCTION distribution by economic cost ratio to milk prices



Source: 2008 Agricultural Resource Management Survey, USDA



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Dairy Farm Business Cost Structure Differences



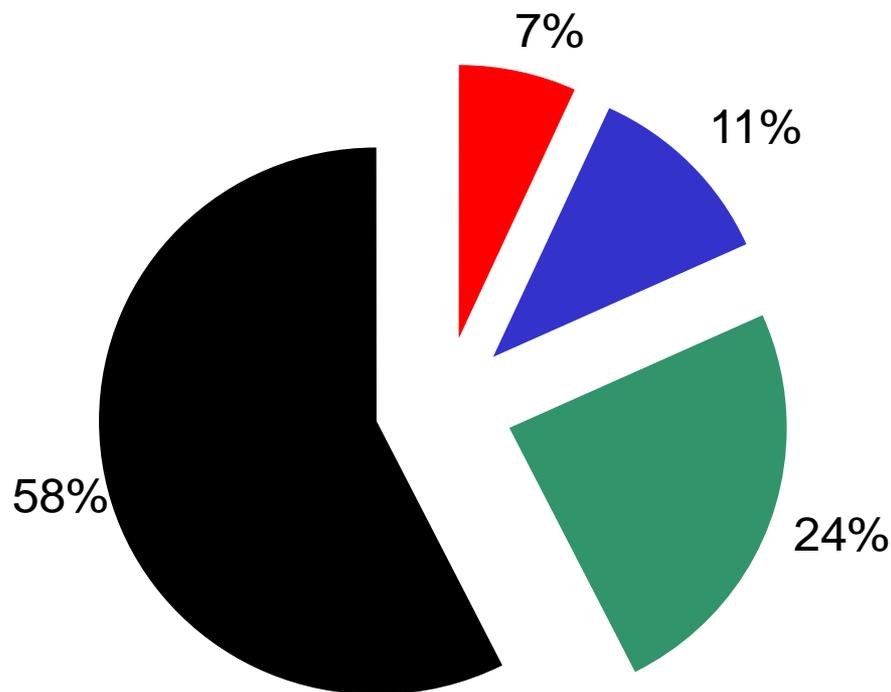
	Economic Cost Ratio		
	Low	Medium	High
Number of cows	306	144	45
Annual hours operator labor	3,360	3,749	3,741
	<i>Dollars per cwt</i>		
Feed	6.17	7.81	7.84
Hired labor	1.66	1.87	1.46
Fuel	0.52	0.73	1.30
Interest	0.52	0.70	1.00
Depreciation	1.27	1.86	3.02
Operator labor & management	1.15	2.75	9.68

Source: 2008 Agricultural Resource Management Survey, USDA

Dairy Farm Businesses Management Strategies



- Used no tool
- Cost control
- Marketing
- Both cost control & marketing



Cost control

- Locking in the price of inputs
- Using farm management or other advise services
- Shopping for best price from multiple sources
- Negotiating price discounts
- Participating in buying clubs or other alliances

Marketing strategies

- Direct sales to consumers
- Sales to retail outlets
- Advisory services
- Futures
- On-farm storage
- Contract shipping
- Collaborative marketing or networking

Source: 2008 Agricultural Resource Management Survey, USDA



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