

# *Financial Environment and Strategic Risk*

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# *Outline*

- **Current Financial Environment**
- **Adding a Family Member to the Operation**
- **Building Farm Resilience**
- **Summary**
- **Take Home Exercises**
  - **Table 1. Agility and Absorption Capacity**
  - **Table 2. Farm Goals**

# *Current Financial Environment*

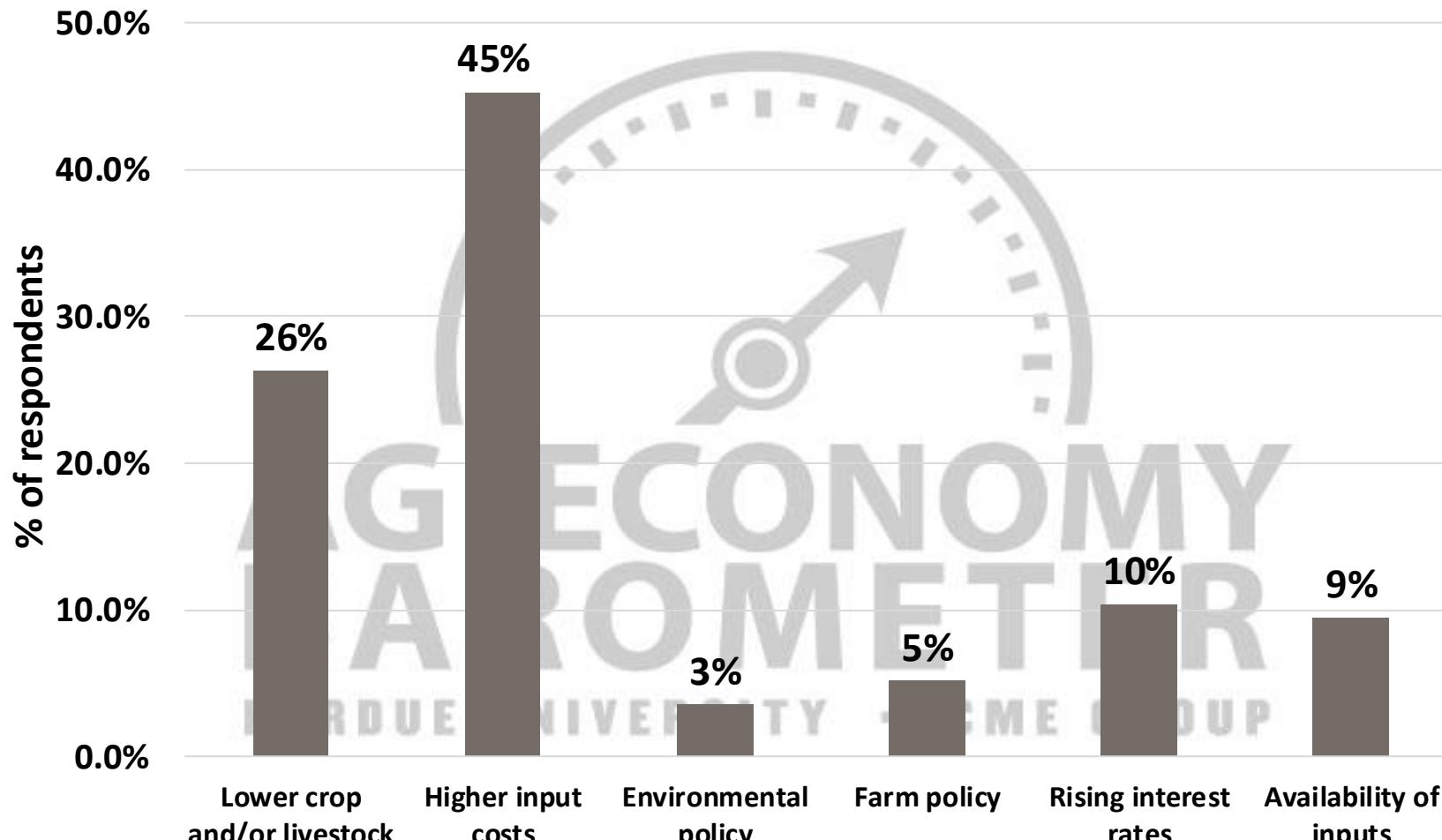
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# *Definition of Financial Stress*

- **Negative Operating Profit Margin Ratio (negative cash flow)**
  - **Operating profit margin ratio = (net farm income plus interest minus owner withdrawals) / gross farm income**
- **Debt to Asset Ratio Above 0.70 (weak balance sheet)**
  - **Land values are extremely important to balance sheet strength**

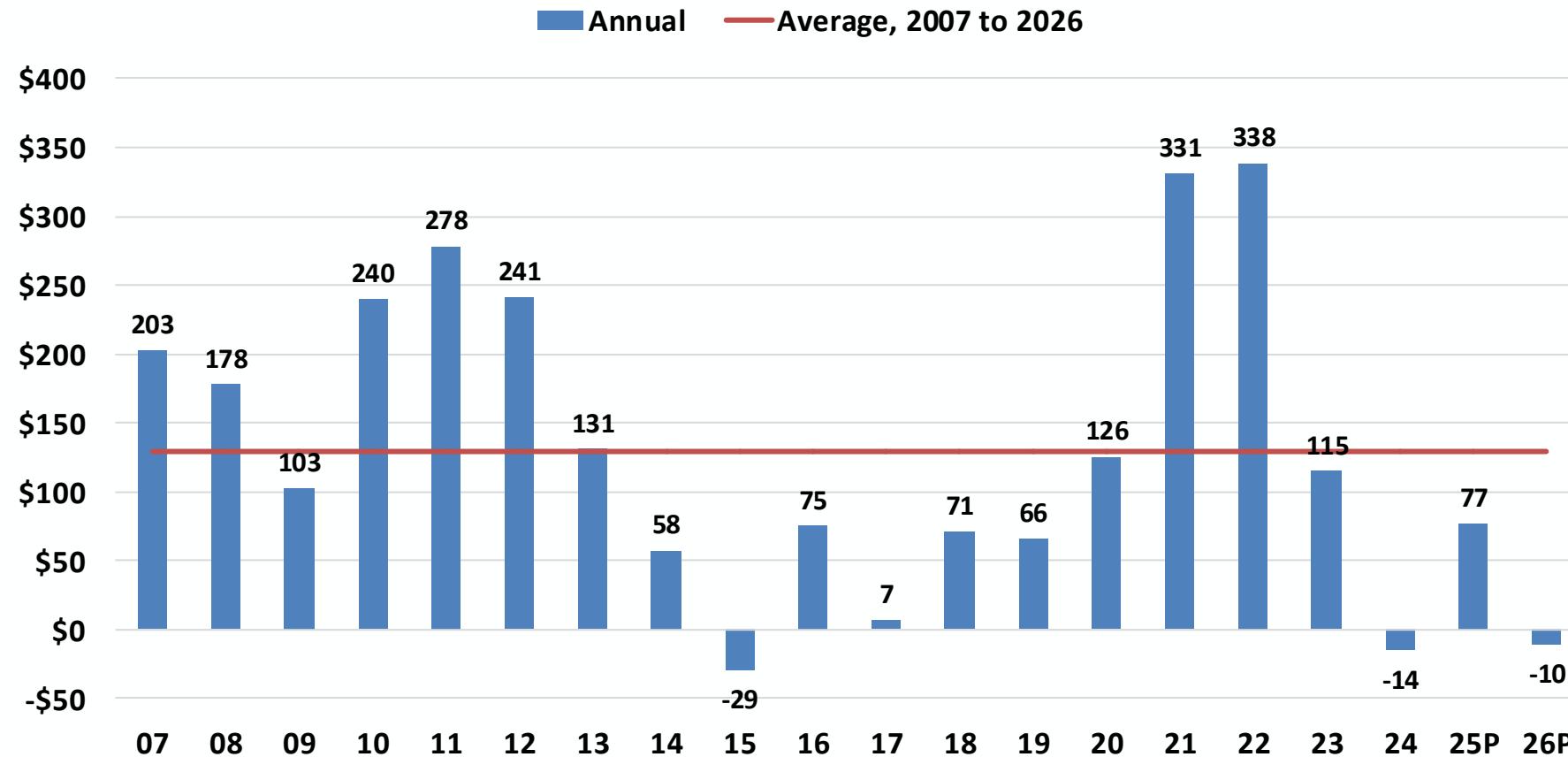
**Looking ahead to next year what are your biggest concerns for your farming operation?**



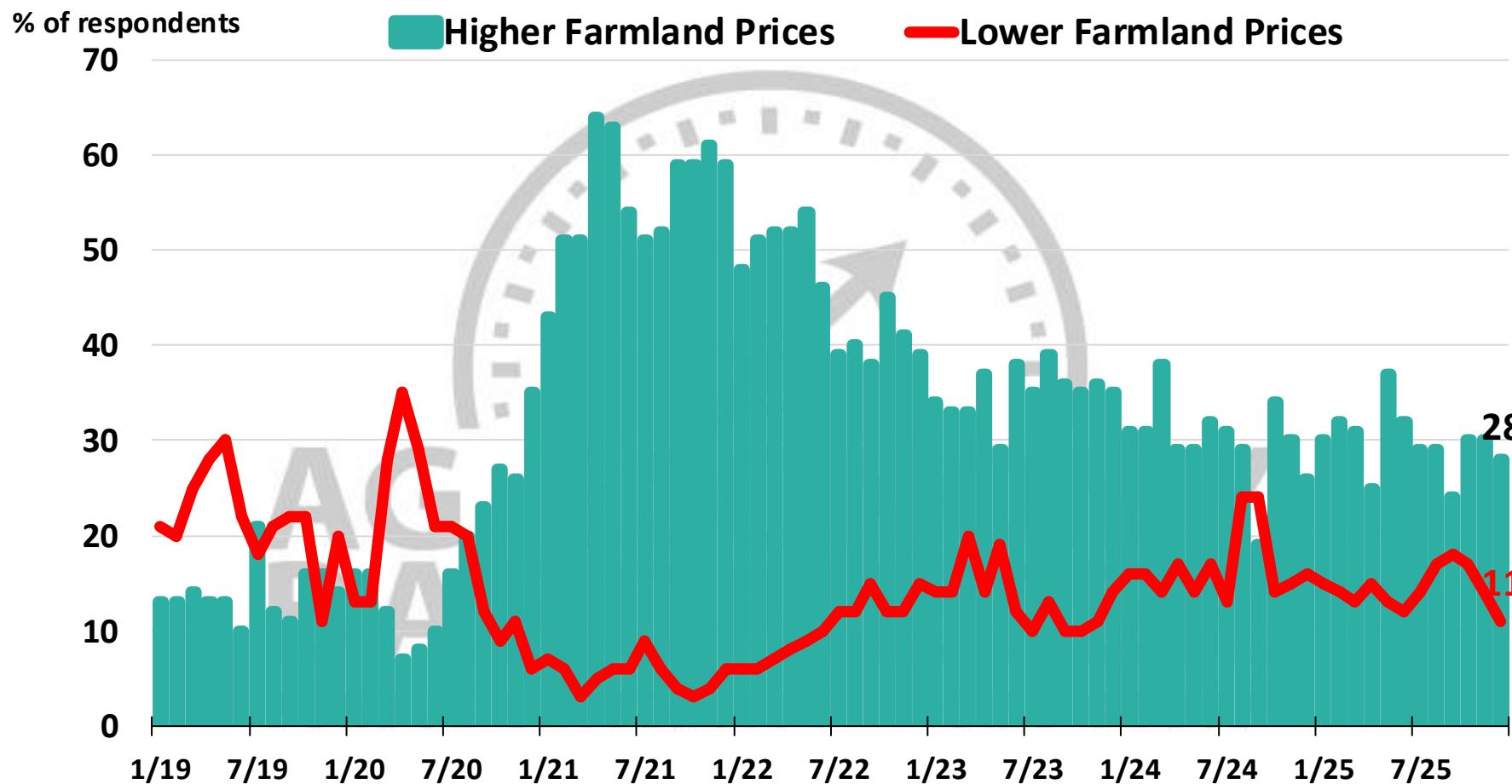
Source: Purdue Center for Commercial Agriculture, Producer Survey, December 2025

# *Trends in Net Farm Income*

Net Farm Income, Corn/Soybean Rotation (\$ per Acre)  
West Central Indiana Case Farm



## Farmland Price Expectations, 12 Months Ahead



Source: Purdue Center for Commercial Agriculture, Producer Survey, January 2019 - December 2025

**Compared to 2025, do you expect the size of your farm's operating loan to be larger, smaller, or about the same in 2026?**

**% of respondents**

75%

60%

45%

30%

15%

0%

**70.1%**

**12.0%**

**18.0%**

**Smaller**

**About the Same**

**Larger**

**Source: Purdue Center for Commercial Agriculture, Producer Survey, December 2025**

**What is the reason for your farm's larger operating loan in 2026 (check all that apply)?**

**% of respondents**

60%

**54.1%**

45%

30%

15%

0%

**Increase in input costs**

**Increase in size of operation**

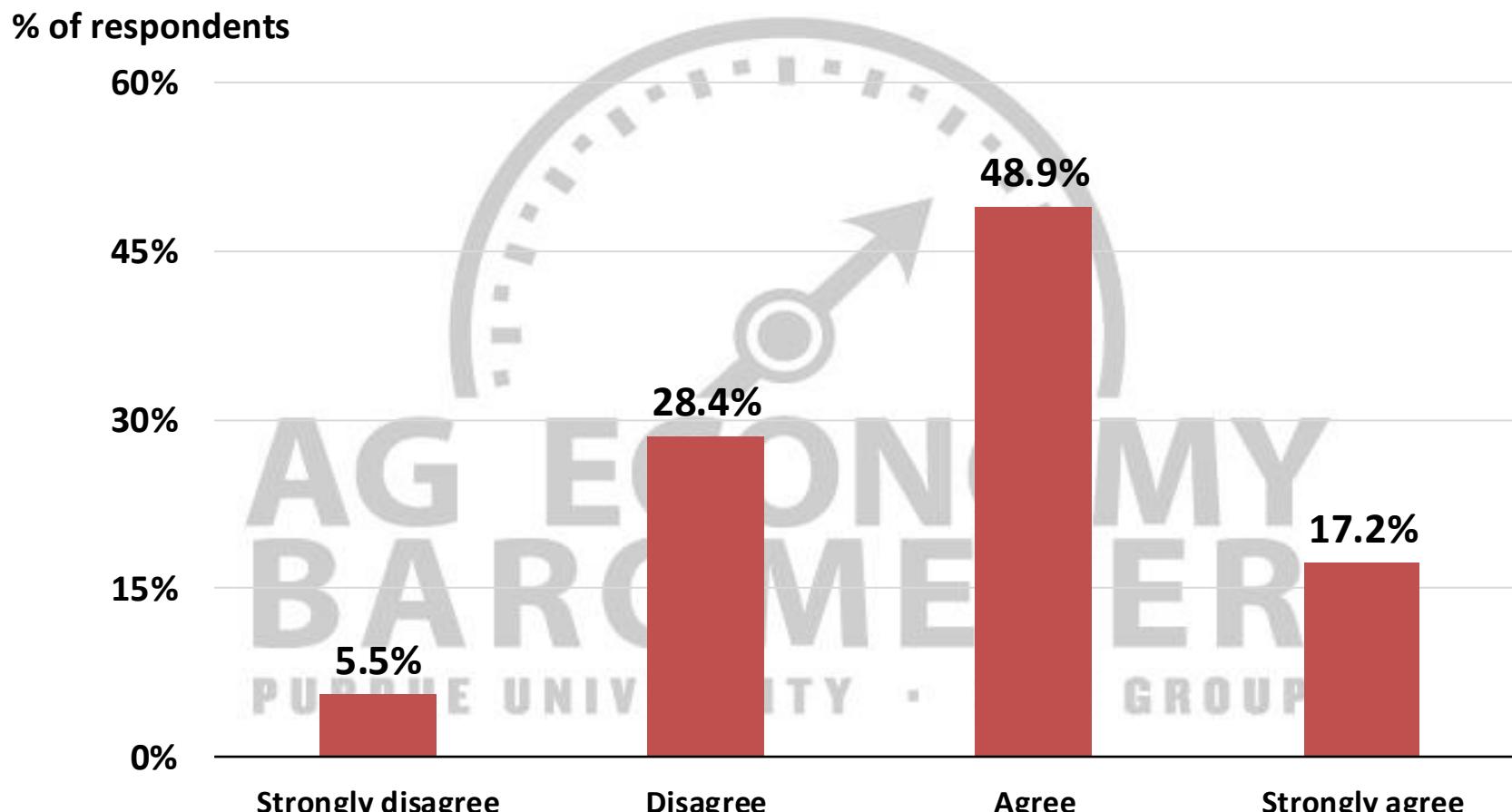
**Unpaid operating debt from  
prior years**

**27.6%**

**18.4%**

Source: Purdue Center for Commercial Agriculture, Producer Survey, December 2025

How strongly do you agree with the following statement? We have a strong balance sheet.



# *Adding a Family Member to the Operation*

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# *General Comments*

- **There is no ideal time for a person to join a family business.**
  - **When prices are low, cash flow is relatively tight.**
  - **When prices are high, everything is expensive (especially cash rent and land values).**
- **Purdue Extension can help you ask the right questions.**
- **We can't, nor can experts, come up with a perfect plan for your operation.**
- **Each family business has unique circumstances.**

# *General Comments (continued)*

- **However, there is a wrong way to go about the process.**
- **Key Components of the Right Way**
  - In addition to gauging whether the farm can afford to add a family member:
    - make sure your plan includes all family members (on-farm and off-farm)
    - make sure you understand the pros and cons of using a trust or entity
    - make sure you understand the tax consequences of your plan
    - make sure you utilize the appropriate experts

# *Feasibility of Adding a Family Member*

## *Three Key Questions*

- **Is gross income large enough to pay for an additional person?**
- **Is the farm profitable enough to add an additional person?**
- **Will the farm be able to cover term debt payments and replace assets in a timely fashion after another person has been added?**
  - Net farm income plus depreciation is used for owner withdrawals, to make term debt payments, and to help replace assets.
  - Are the goals of the current and future operators aligned? For example, are the current operators willing to take on additional debt if the farm needs to expand after the addition of the new family member?

# *Building Farm Resilience*

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# *Strategic Risk*

Strategic risks are risks caused by exogenous shocks that are not covered by traditional risk management strategies

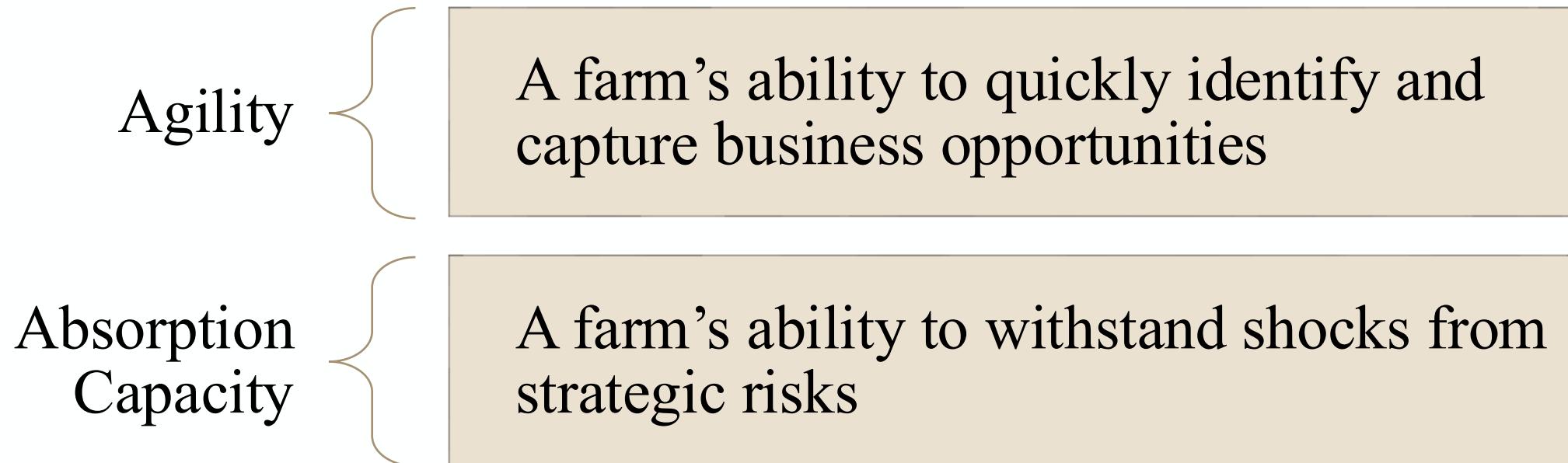
Sources:

- Government policy changes
- Geopolitical Conflicts
- Disease
- Changes in consumer preferences
- Shifting weather patterns
- Technological uncertainties



# *Agility and Absorption Capacity*

Resilience is a farm's ability to anticipate, absorb, accommodate, or recover from effects of shocks or stresses in a timely manner



# *Recent Survey*

- **April 2023 Survey of 403 Commercial Producers**
- **Respondents value of farm production is greater than \$500,000.**
- **Survey of U.S. agricultural producers, focused on major crop and livestock enterprises**

Corn and Soybeans: 53%

Beef: 19%

Wheat: 14%

Swine: 6%

Cotton: 3%

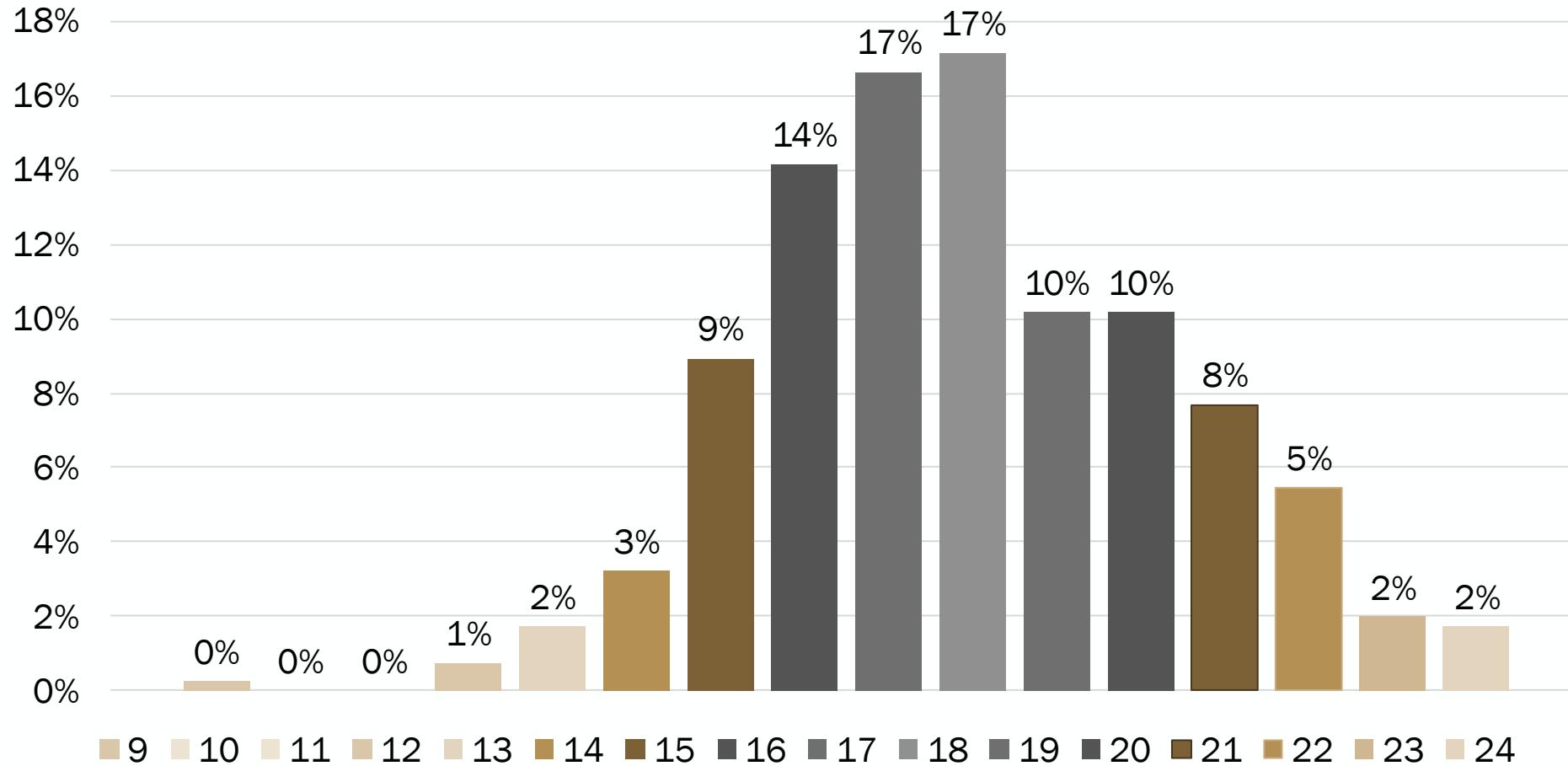
Dairy: 5%

# *Survey Questions - Resilience*

Variable Name	Survey Question	Agree	Disagree
Agility_Goals	Our farm has established goals, objectives, and core values.	89.6%	10.4%
Agility_Opp	Our farm looks for opportunities that new enterprises may provide.	82.9%	17.1%
Agility_Advantage	We regularly assess our advantages and disadvantages compared to other farms.	70.7%	29.3%
Absorp_FixedCost	We have low per unit fixed costs relative to our most efficient competitors.	72.0%	28.0%
Absorp_Diversify	Our farm enterprise is more diversified today than it was 5 years ago.	55.1%	44.9%
Absorp_BalSheet	We have a strong balance sheet.	90.1%	9.9%

# Aggregate Resilience Score

## Resilience to Strategic Risk



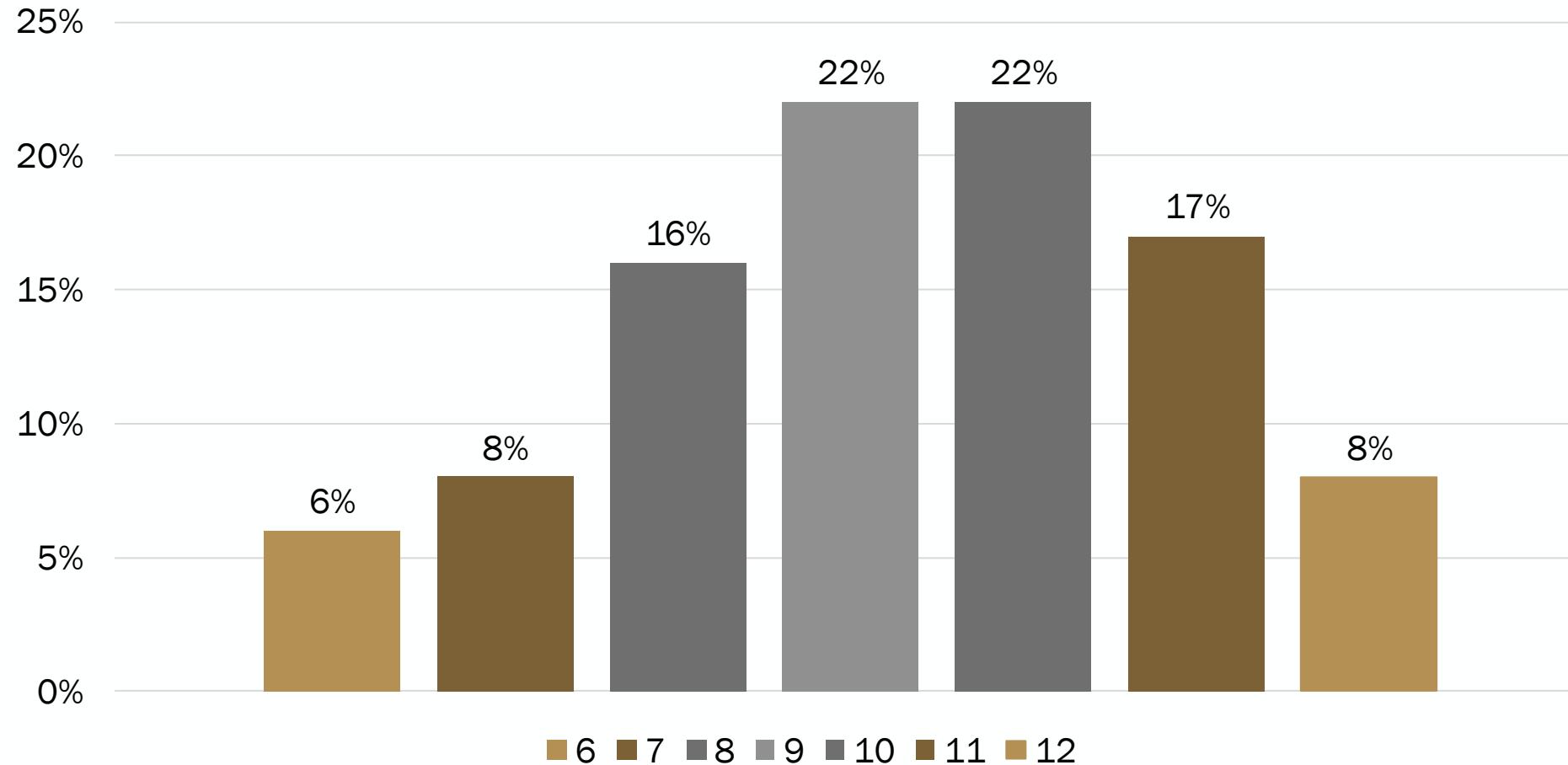
# *Survey Questions - Managerial Ability*

Variable Name	Survey Question	Agree	Disagree
Succession_Plans	Does your farm have written succession plans in place?	55.1%	44.9%
Lease_Agree	Are most of your farm's crop lease agreements written?	60.5%	39.5%
Agronomic_Consult	Does your farm use advice from agronomic consultants when making decisions?	57.3%	42.7%
Financial_Ratios	Does your farm use financial ratios to make decisions?	50.6%	49.4%
Pricing_Alt	Does your farm document and evaluate crop pricing alternatives?	60.3%	39.7%
Operating_Proc	Are standard operating procedures documented for repetitive and routine tasks?	49.5%	50.4%

# Managerial Ability

Mean/median/mode = 9

Managerial Ability



# Clustering

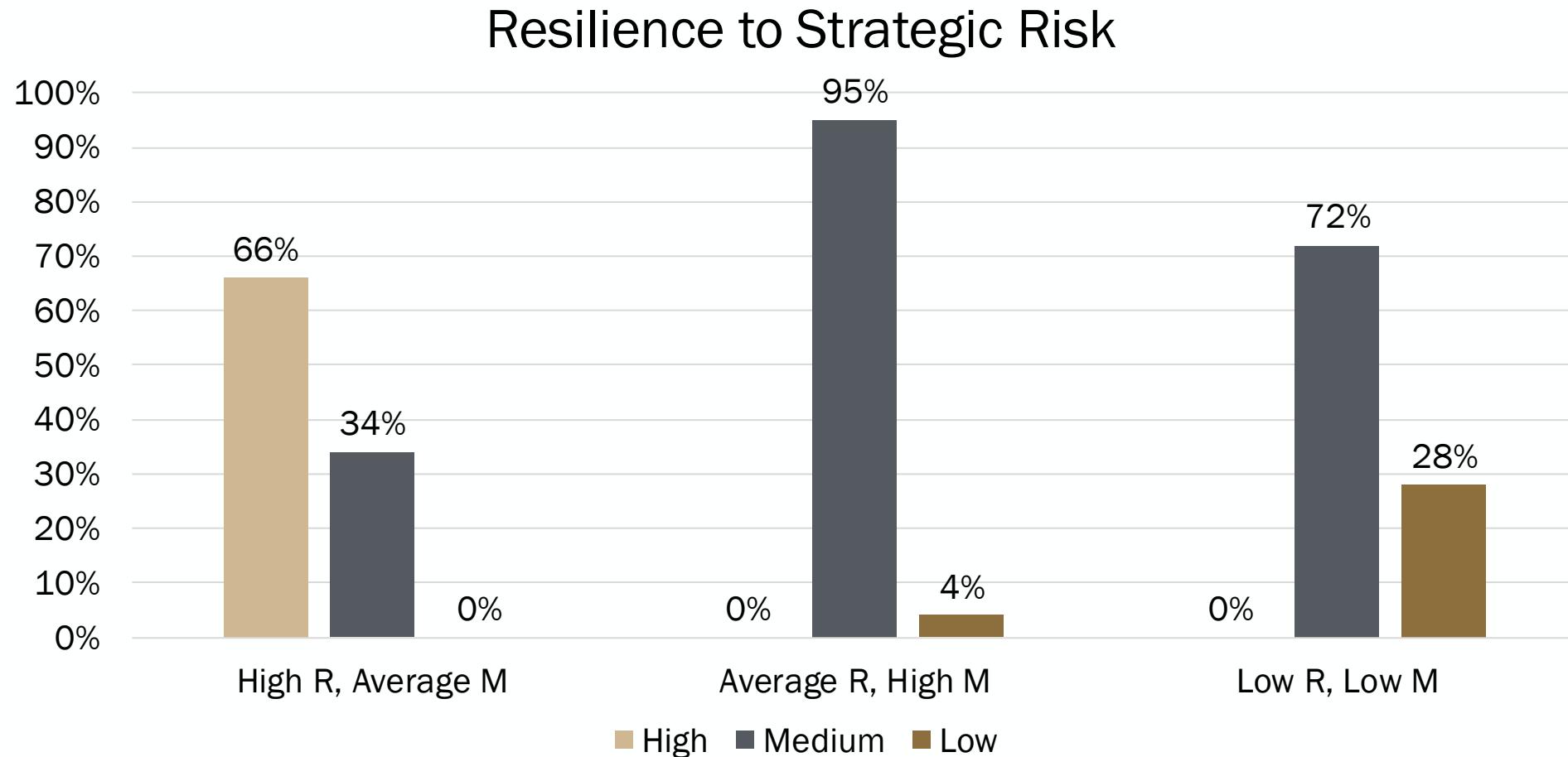
## Cluster Analysis

- An exploratory data analysis technique used to identify natural groupings or clusters within a dataset.

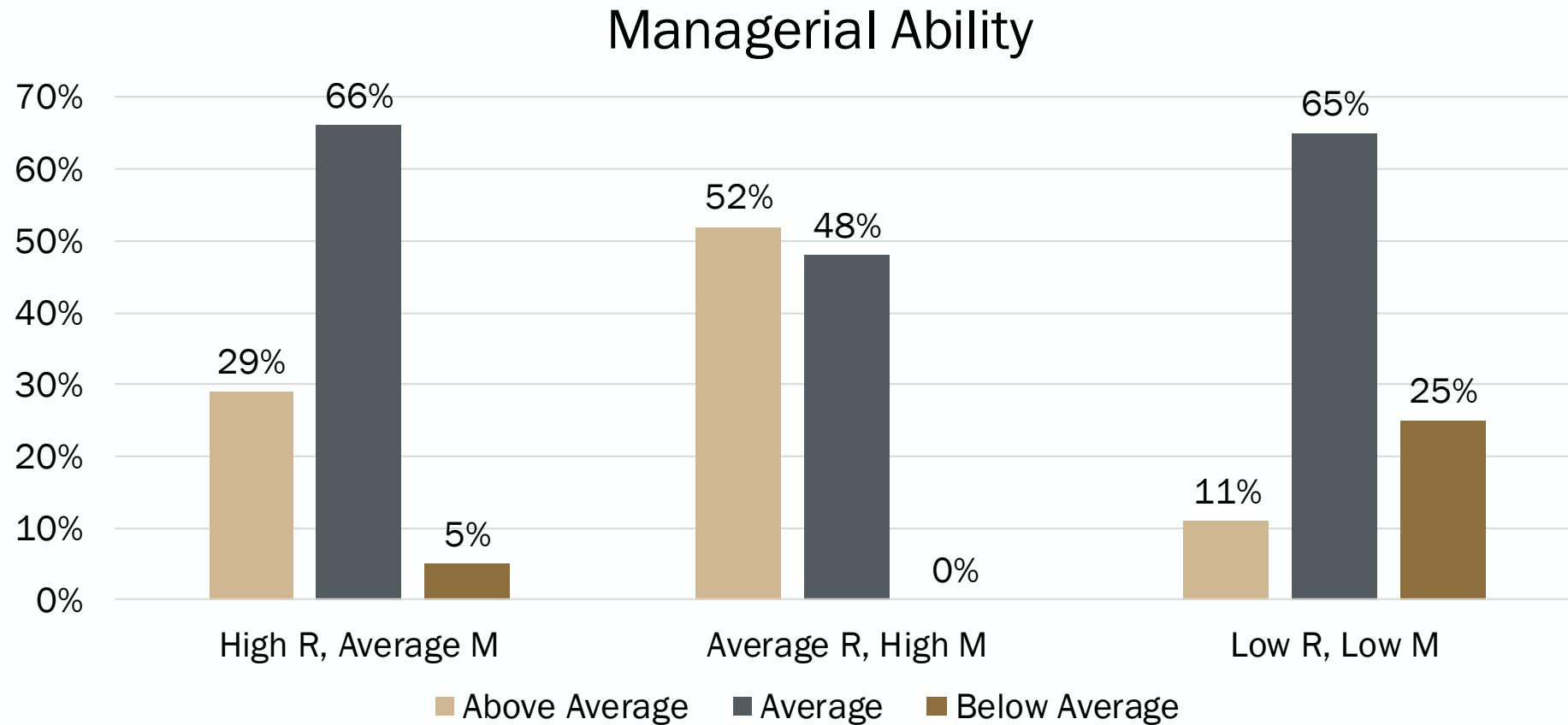
## Three Primary Clusters

- High Resilience, Average Management (n = 102)
- Average Resilience, High Management (n = 102)
- Low Resilience, Low Management (n = 199)

# Differences Across Clusters



# *Differences Across Clusters*



# Differences Across Clusters - Fisher's Exact Test

Variable	High R, Average M n = 102	Average R, High M n = 102	Low R, Low M n = 199	Fisher's Exact Test P - Value
<b>Farm Growth Expectation</b>				
Growth	70%	79%	34%	
Maintain Size	22%	19%	48%	
Reduce Size	9%	2%	18%	0.000
<b>Use of Precision Ag Technologies</b>				
Yield Monitor	71%	92%	56%	
Drones	32%	45%	16%	
None	4%	0%	15%	0.000
<b>Farm Size</b>				
< 1,000 acres	26%	5%	47%	
1,000 - 5,000 acres	57%	74%	42%	
5,000 - 10,000 acres	17%	21%	11%	0.000
<b>Operator Age</b>				
< 35 Years Old	8%	2%	4%	
Above 65 Years Old	37%	23%	42%	0.002
<b>Education Level</b>				
Graduate Degree	29%	30%	19%	0.003

# *How Clusters Relate to Prior Literature*

## **Management for Success in Modern Agriculture (Olsson, 1988)**

- 1. The Entrepreneur – (Average Resilience, High Managerial Ability)**
  - Management based on a clearly formulated business idea
  - Collects sufficient information prior to making decisions
  - **Devotes considerable time to planning and management**
  - Characterized by careful deliberation; is not impulsive
- 2. The Cautious Strategist – (High Resilience, Average Managerial Ability)**
  - Profession is seen as a way of living
  - **Hesitant to experiment with activities outside of their field of competence**
  - **Do not jeopardize themselves or their firm with unnecessary risk**
  - Information gathering is often done in groups with peers
- 3. Defensive Strategist – (Low Resilience, Low Managerial Ability)**
  - **Avoids as much risk as possible**
  - **Defensive attitude towards decision making**
  - Often lack necessary reinvestments
  - Characterized by rundown businesses which are using/have used up productive resources

# *Summary*

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# ***Summary***

- **Current Financial Environment**
  - Low net returns and declining liquidity; strong solvency.
- **Adding a Family Member to the Operation**
  - Make sure to crunch the numbers.
- **Building Farm Resilience**
  - Are you an entrepreneur, a cautious strategist, or a defensive strategist?
- **Take Home Exercises (strategic risk; farm goals)**

# *Questions*

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