

2017 Financial Year in Review

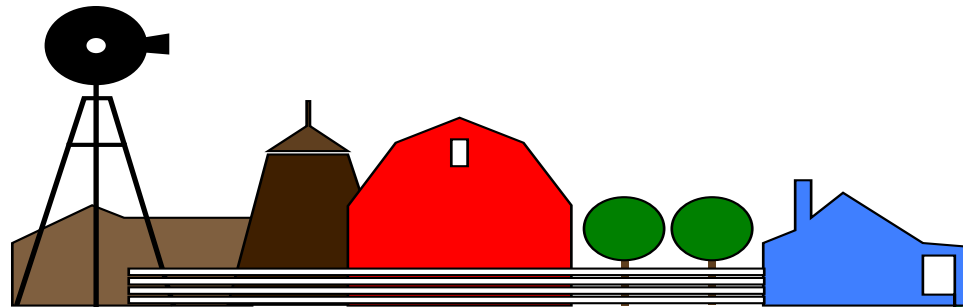
Analysis Financial Trend Data

Compiled by

Aaron Brudelic

**Minnesota West Community and Technical College Farm Business
Management Instructor**

March 2018



Farm Management Education in Southern Minnesota

- Data from 1420 farms were included in the South East, South Central, South West & West Central regional report
- 14 Minnesota West Instructors
- 8 Ridgewater Instructors
- 12 Riverland Instructors
- 14 South Central Instructors



Farm Management Education Is Concerned With:

1. Creating an awareness of the need for accurate financial & enterprise records.
2. Stimulating individuals and families to establish goals and set priorities.
3. Developing the farm operator's understanding of the function of management.



Farm Management Education Is Concerned With:

4. Developing fundamentals of resource management (financial & human).
5. Developing student skills in analyzing and interpreting farm business records.
6. Developing skills in analyzing data to improve the organization and efficiency of the farm business.



2017 in Review

- Gross farm income was, \$774,349 in 2017, down from \$791,868 in 2016. Down **2.2%**
- Cash operating expenses was, \$680,554 in 2017, down from \$683,984 in 2016. Down **0.5%**
- Net cash income was \$93,795 in 2017, down from \$107,885 in 2016. Down **13%**
- Net farm income was \$54,241 in 2017, up from \$46,742 in 2016. Up **16%**

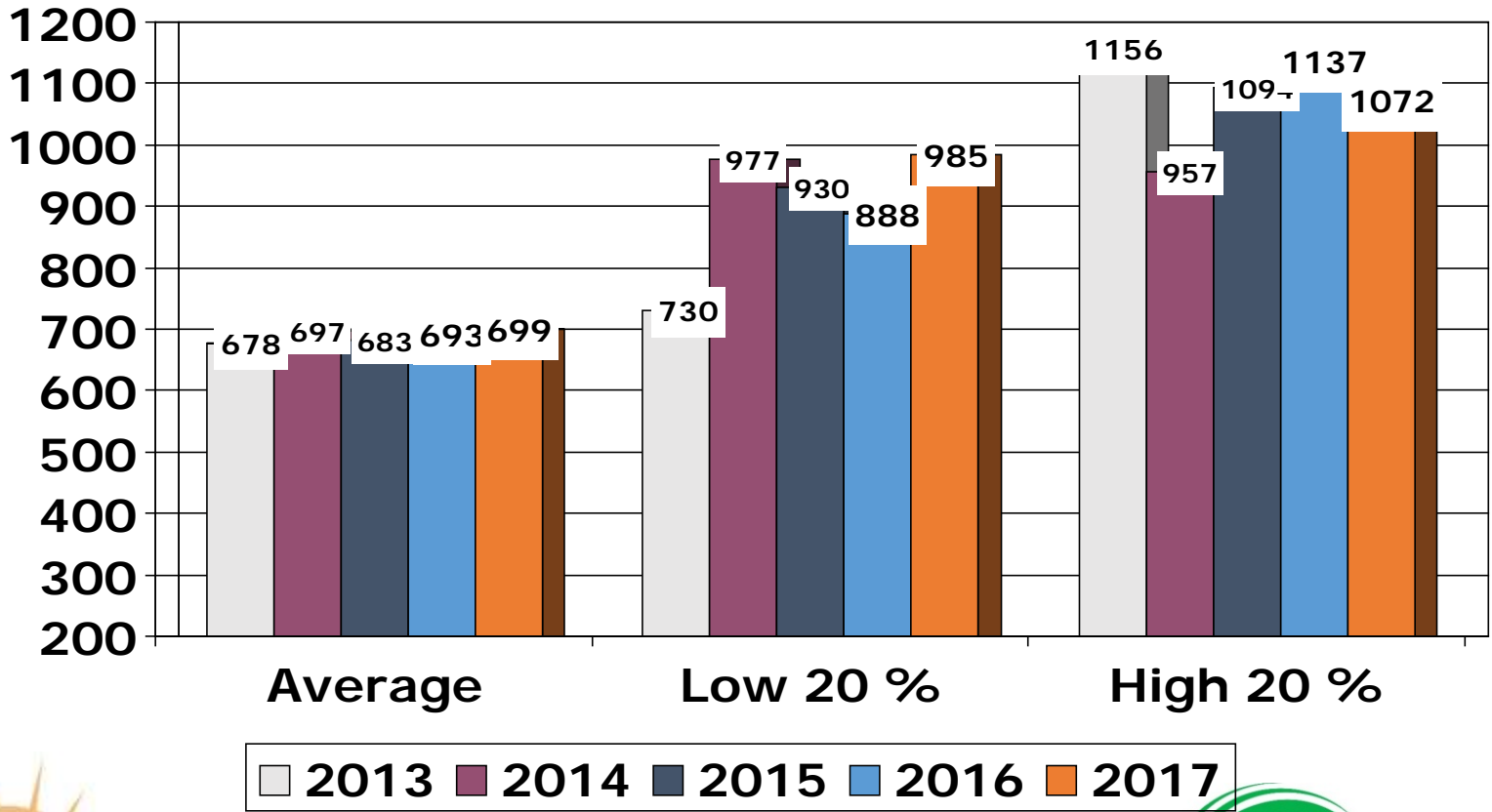


2017 in Review

- Corn production was up **5.1%** to a yield of 215.3 bu. in 2017 from 204.8 bu. in 2016
- This is the highest yield ever in the database. The lowest was 54 bu. in 1965.
- Soybean production was down **9.8%** to a yield of 55.3 in 2017 from 61.3 bu. in 2016.
- The lowest yield was 18 bu. in 1996. The highest yield was 61.3 bu. in 2016.

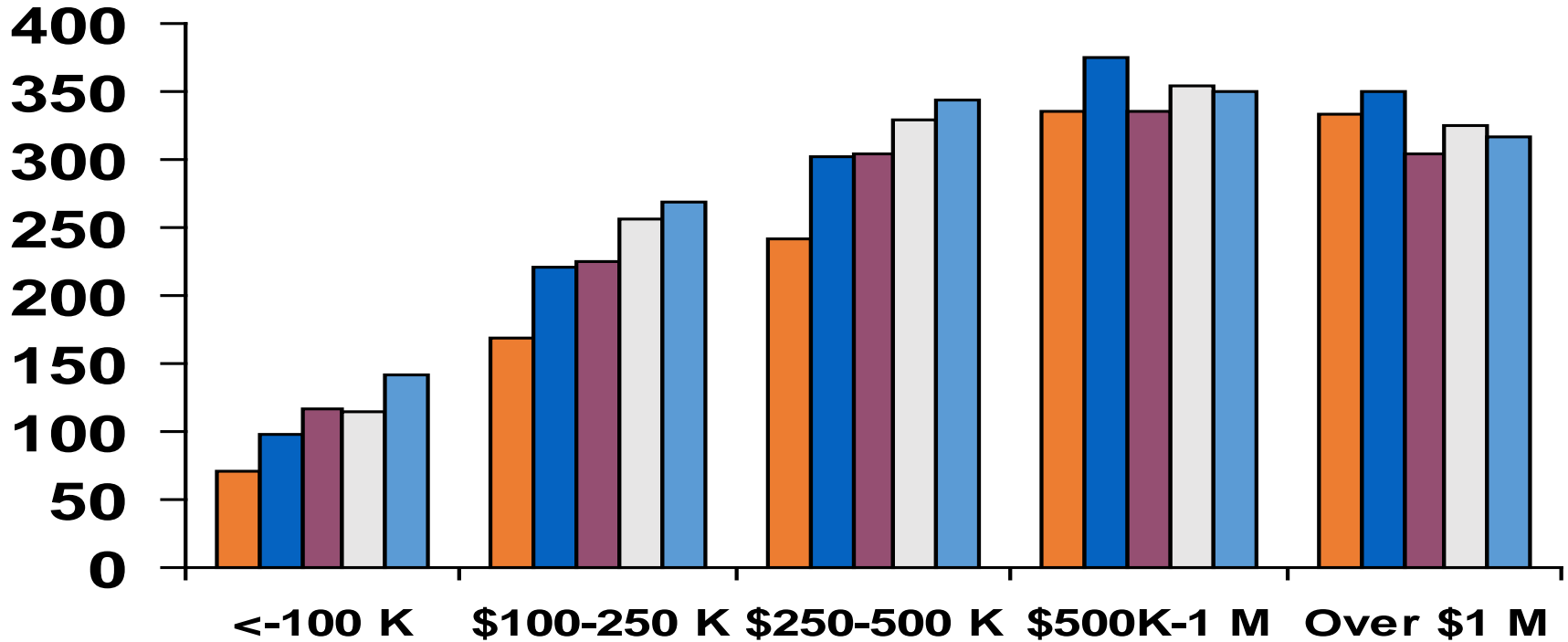


Crop acres



Farm Size

Actual Number of Farms by Size

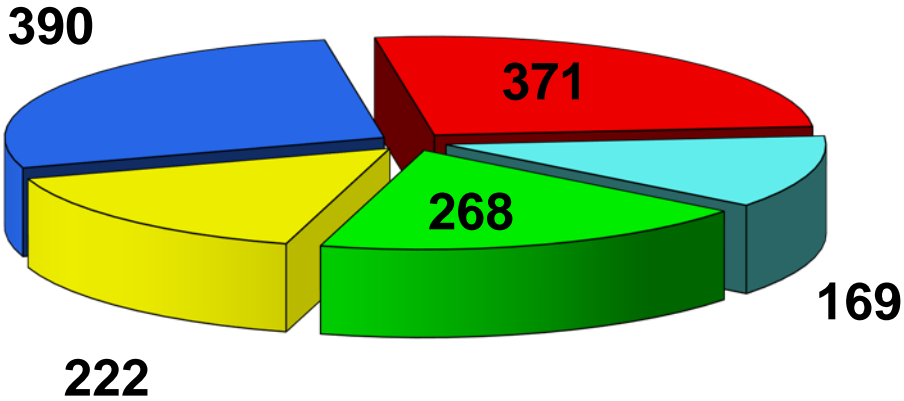


2013 - 1151	2014 - 1347	2015 - 1287
2016 - 1380	2017 - 1420	

Age of Operator

Actual Number of Farms by Operator Age Category

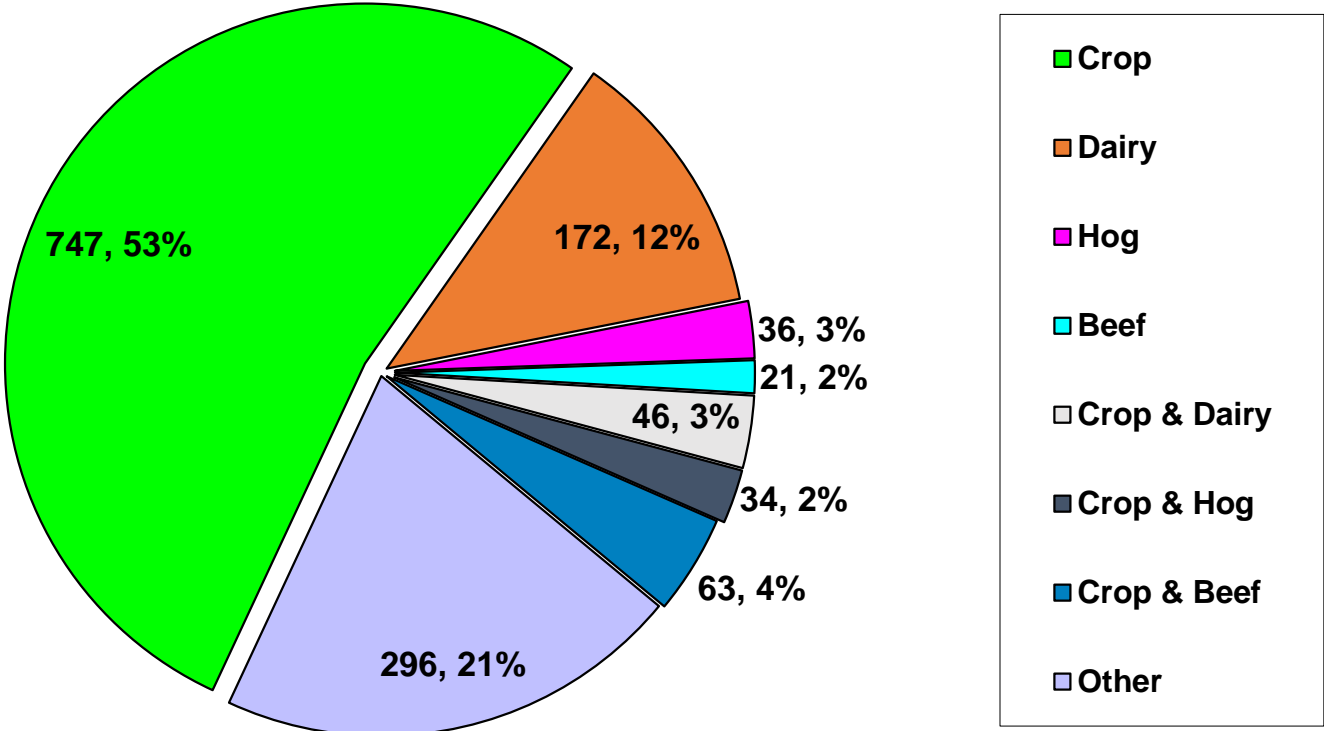
Total of 1420 Farms



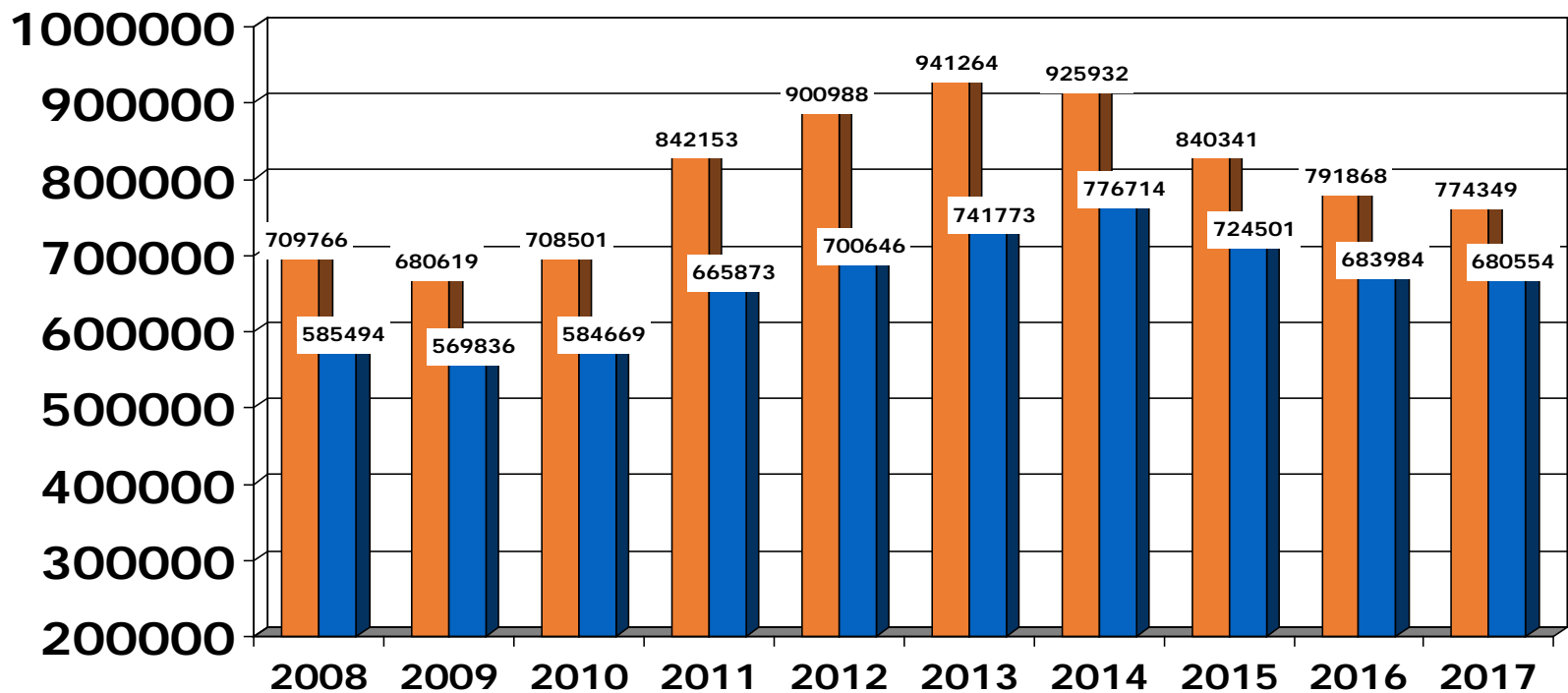
Type of Farm

Actual Number of Farms by Farm Type

Total of 1420 Farms

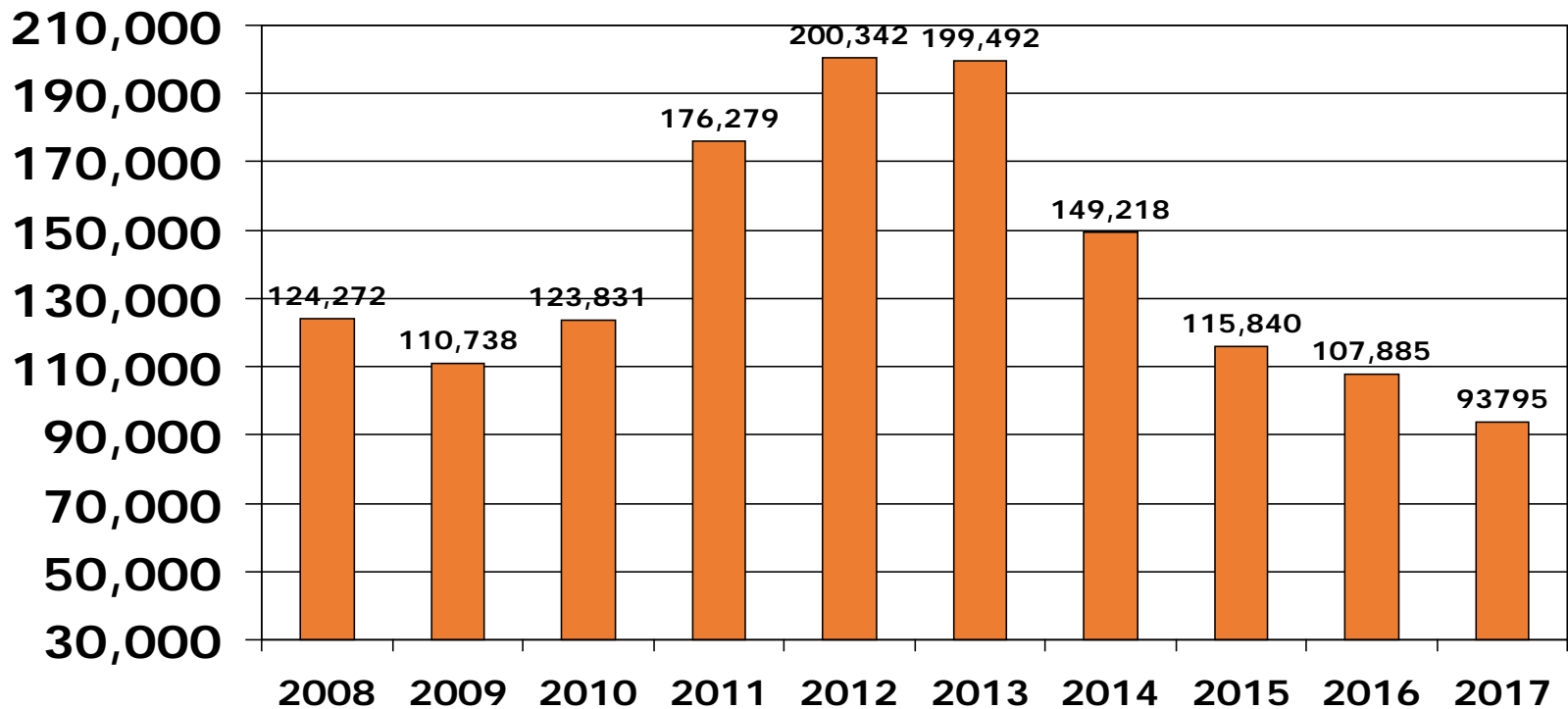


Gross Cash Farm Income & Total Cash Expenses



■ Gross Cash Farm Income ■ Total Cash Expenses

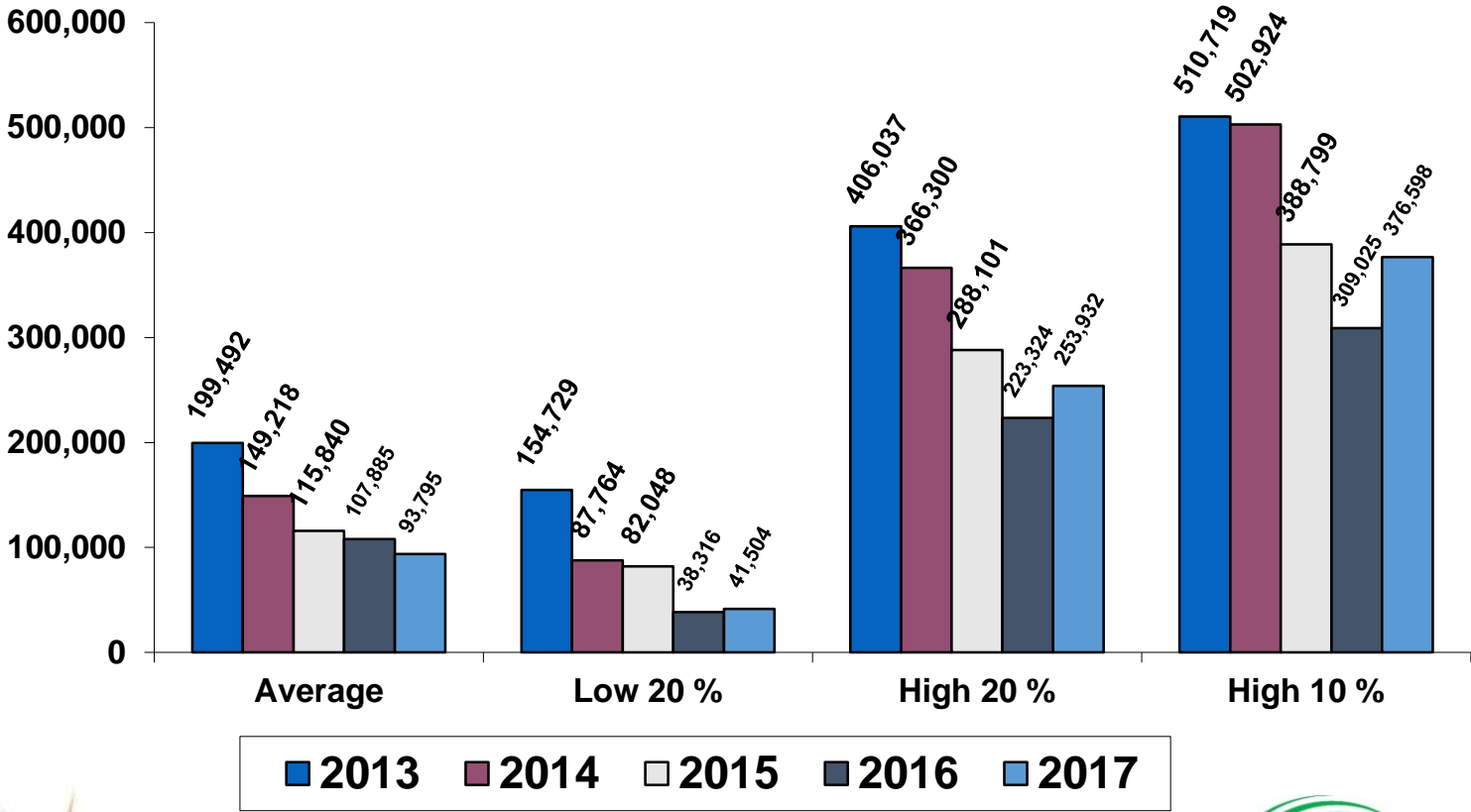
Net Cash Income



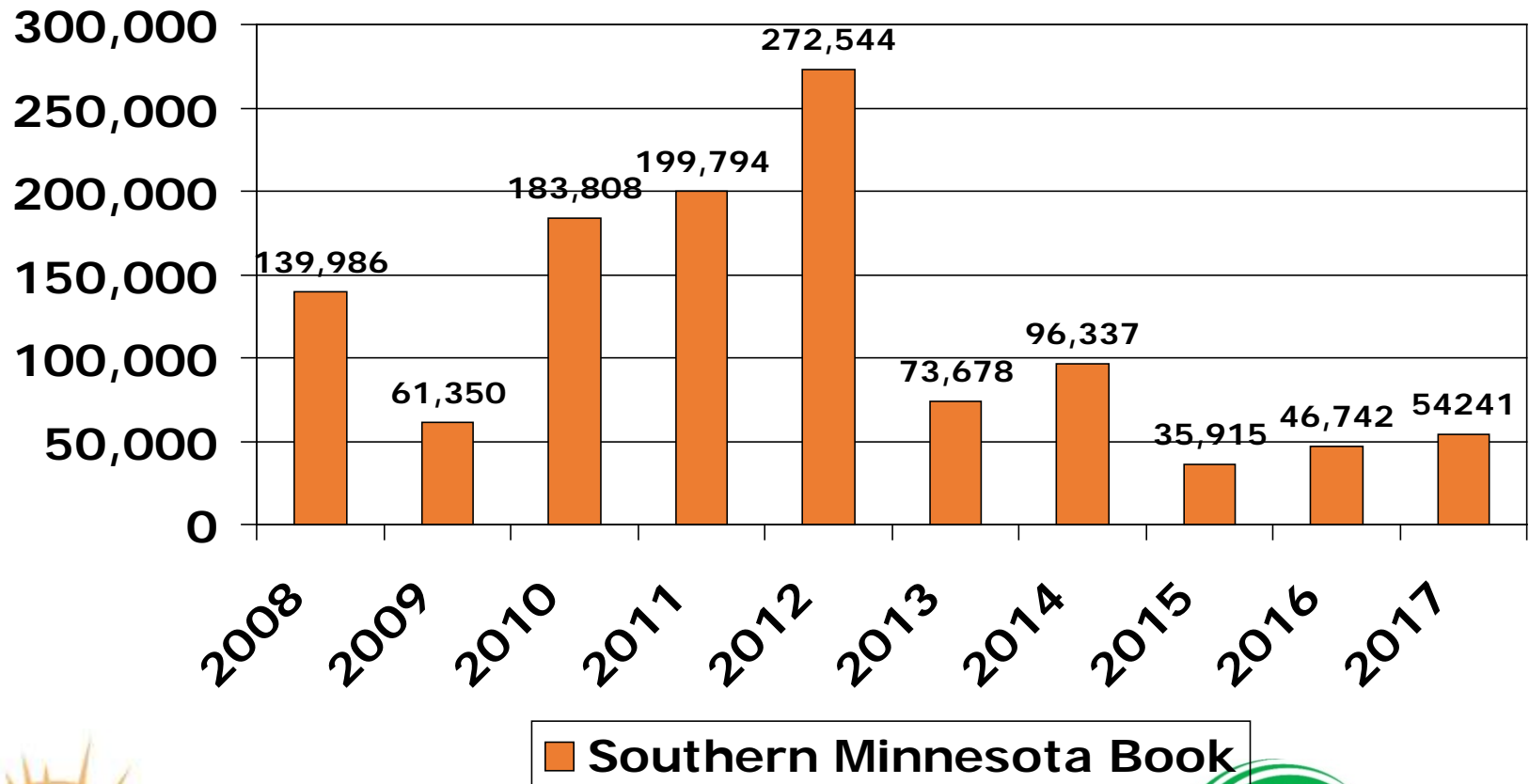
■ Southern Minnesota



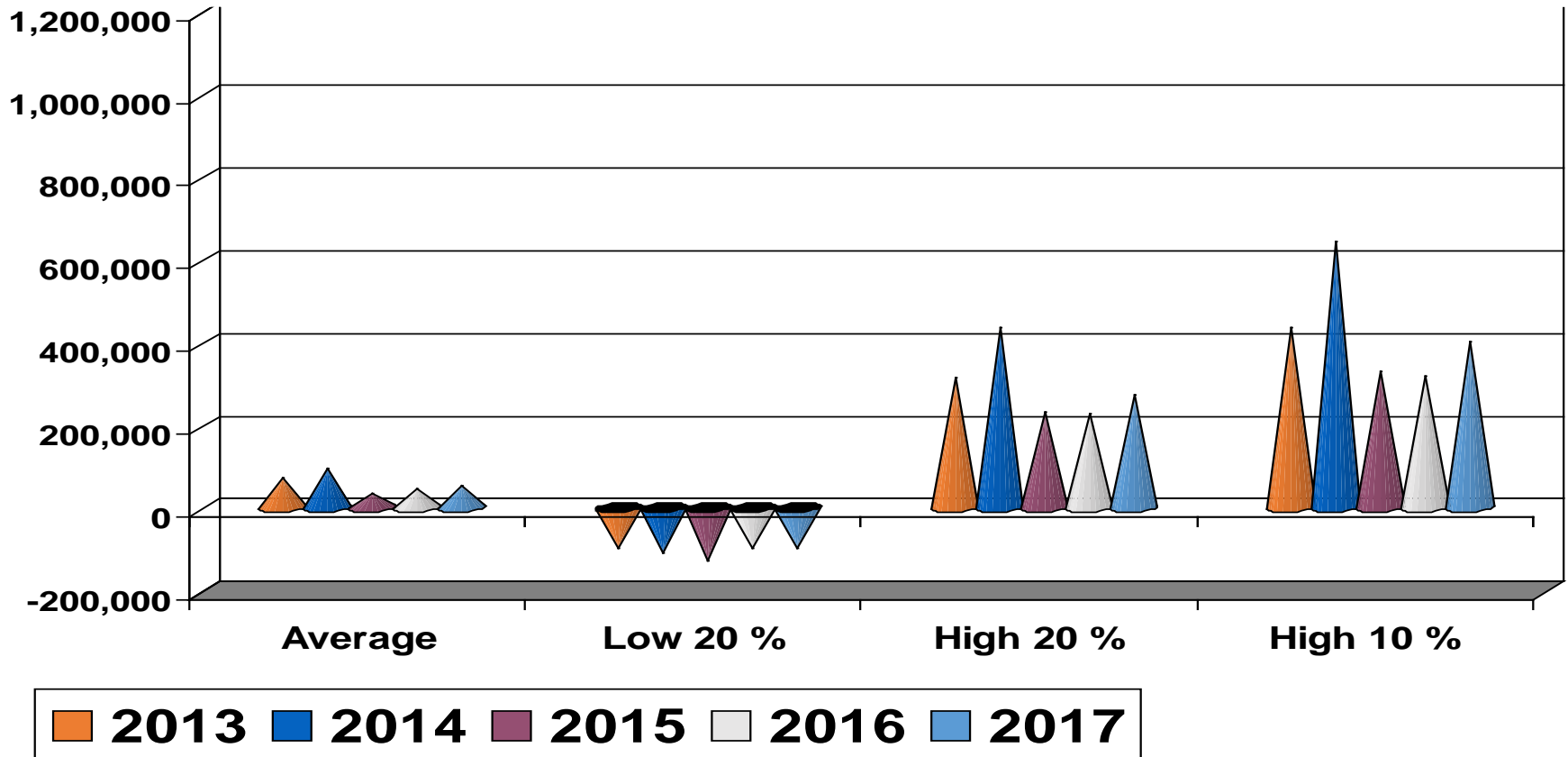
Net Cash Farm Income



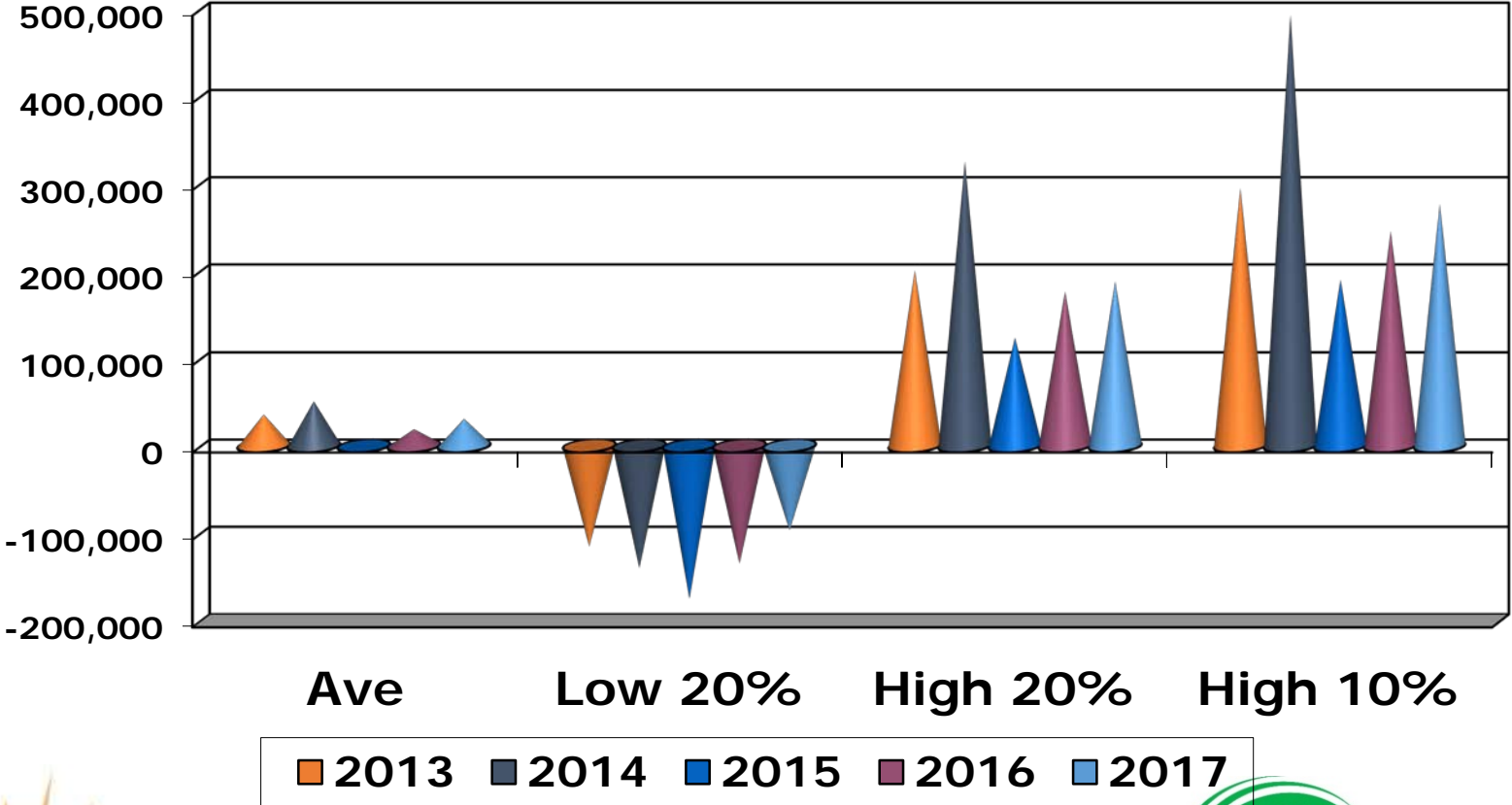
Net Farm Income (Ave)



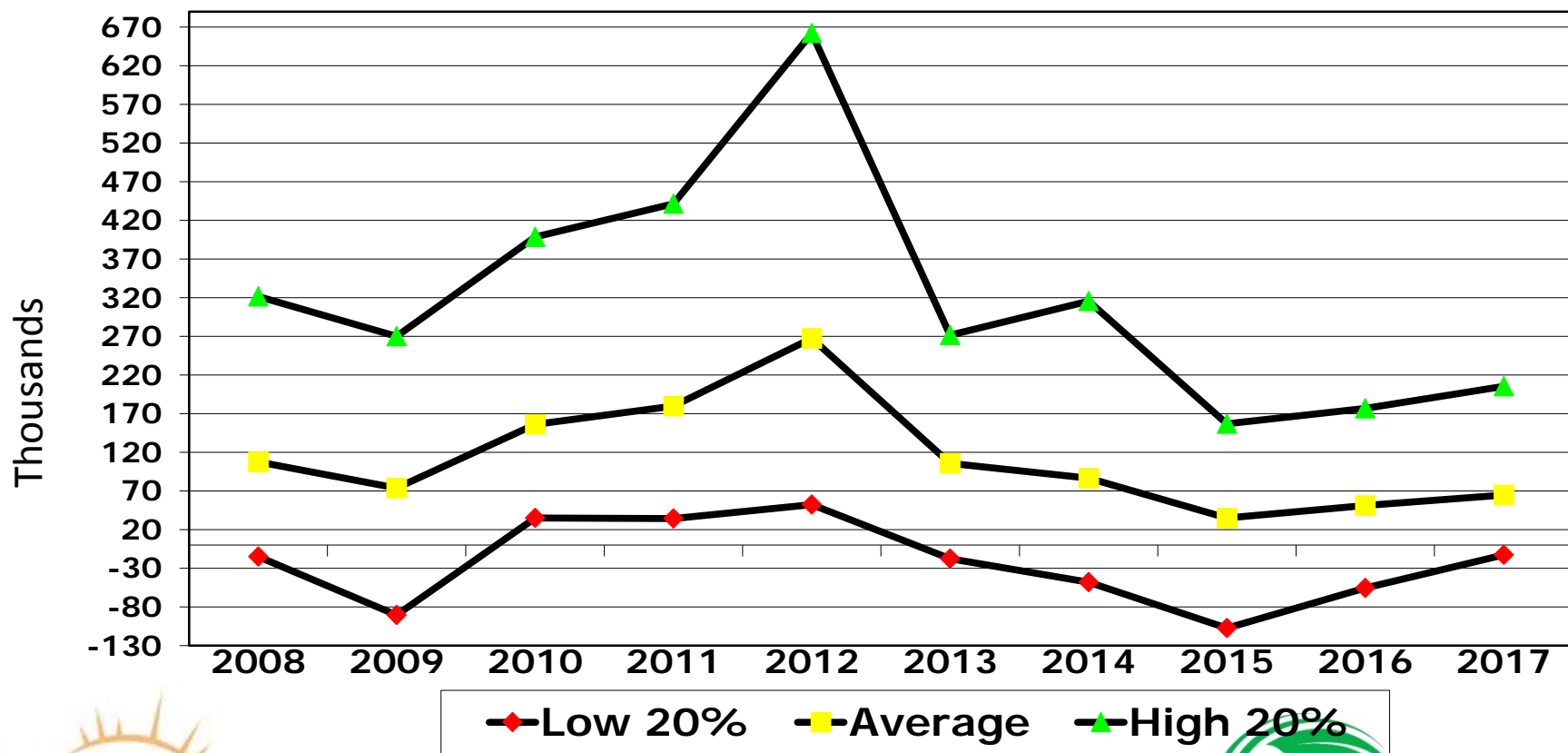
Net Farm Income



Net Worth Change (Cost)



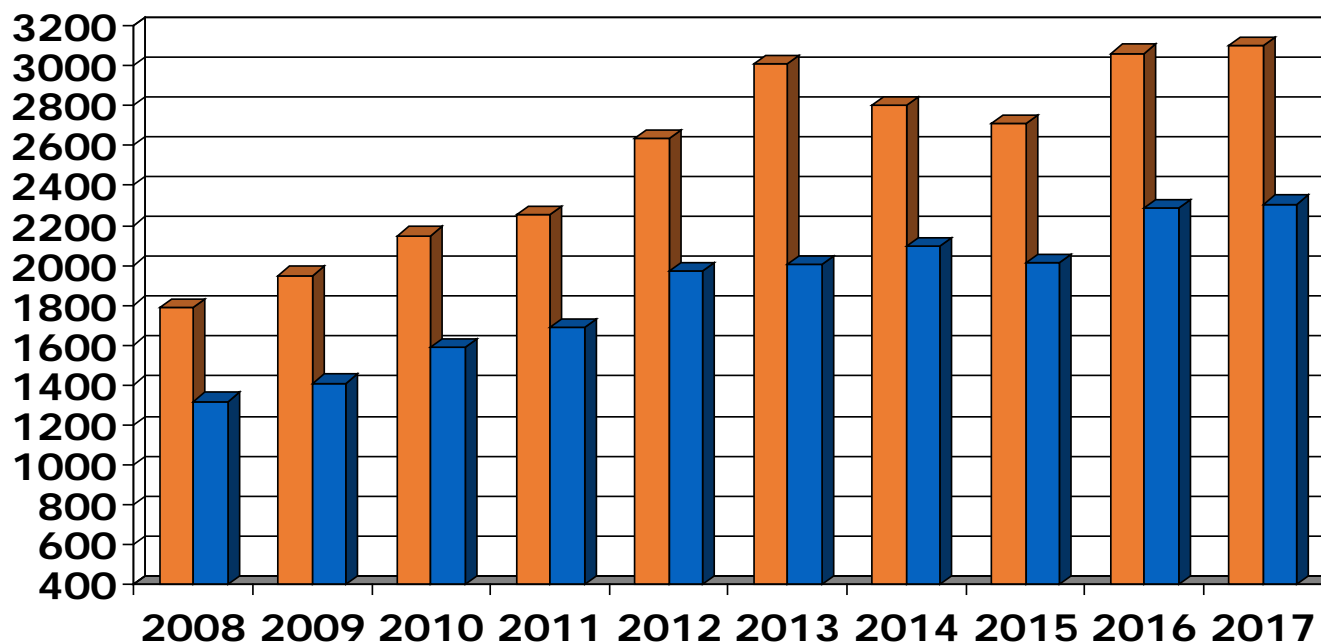
Net Worth Change(Market)





Year End Farm Assets

Thousands



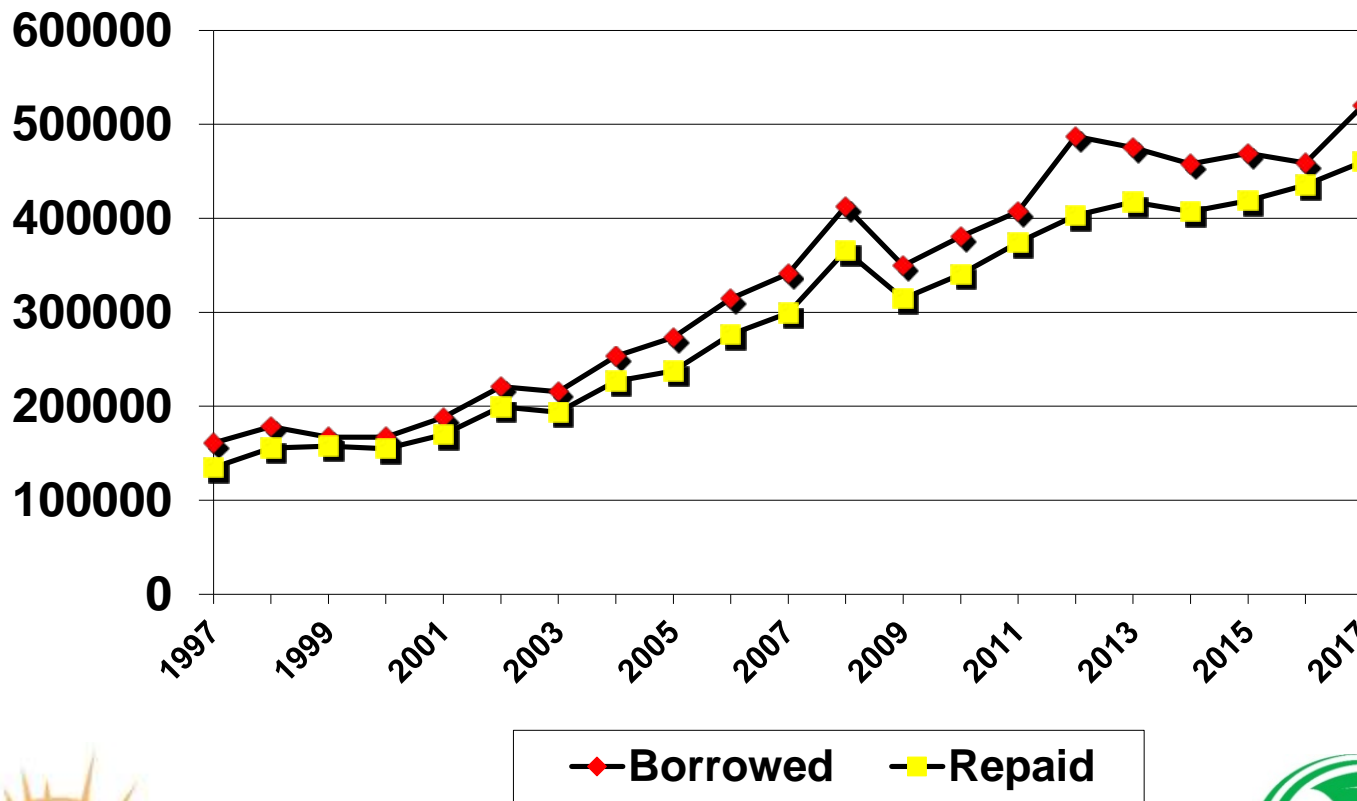
■ Farm Assets (Market) ■ Farm Assets (Cost)



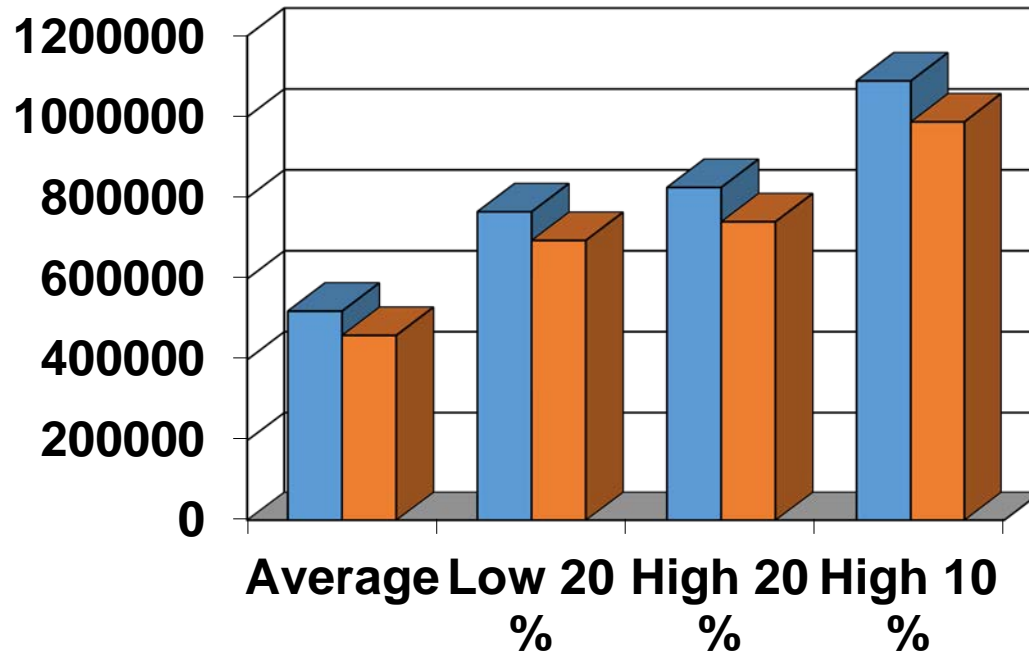
Cash Flow Analysis

Money Borrowed -vs- Debt Repaid

(Page 17)

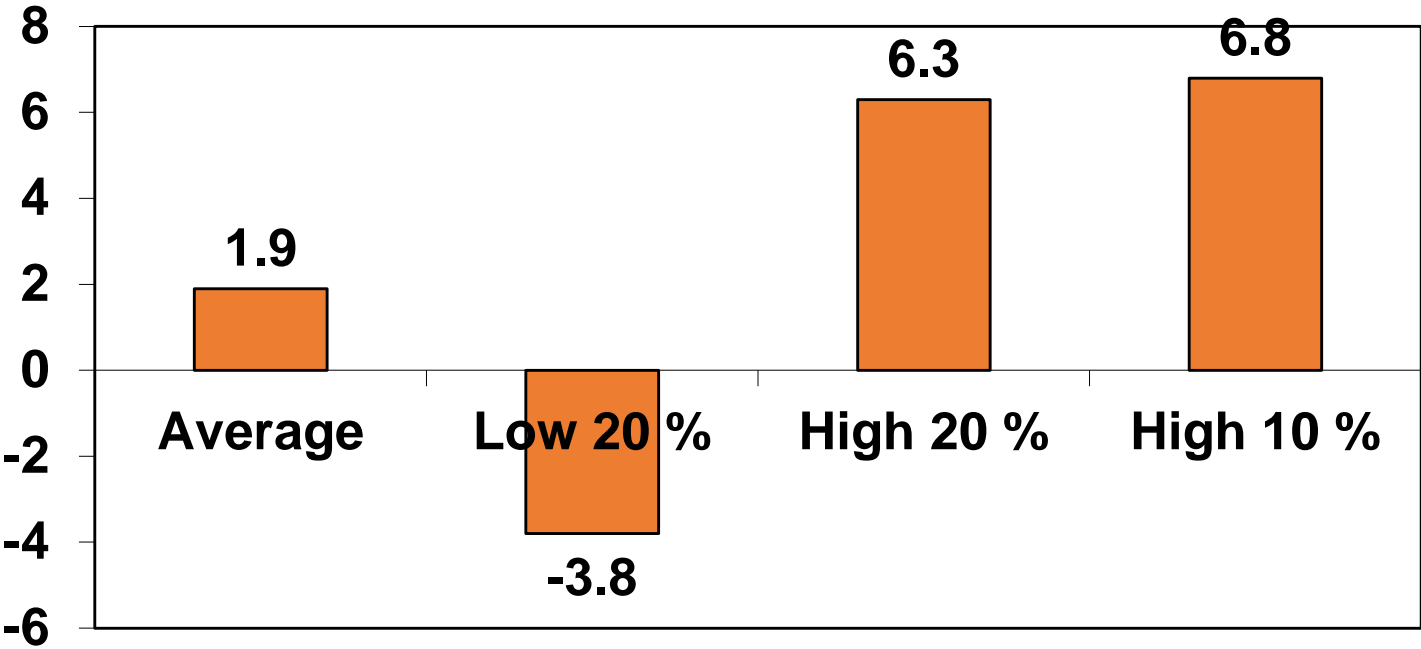


Money Borrowed vs Principal Paid



■ Money Borrowed ■ Money Paid Back

Rate of Return on Farm Assets (ROA) Cost

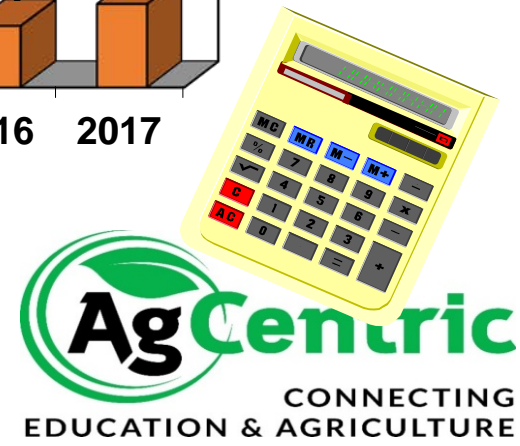
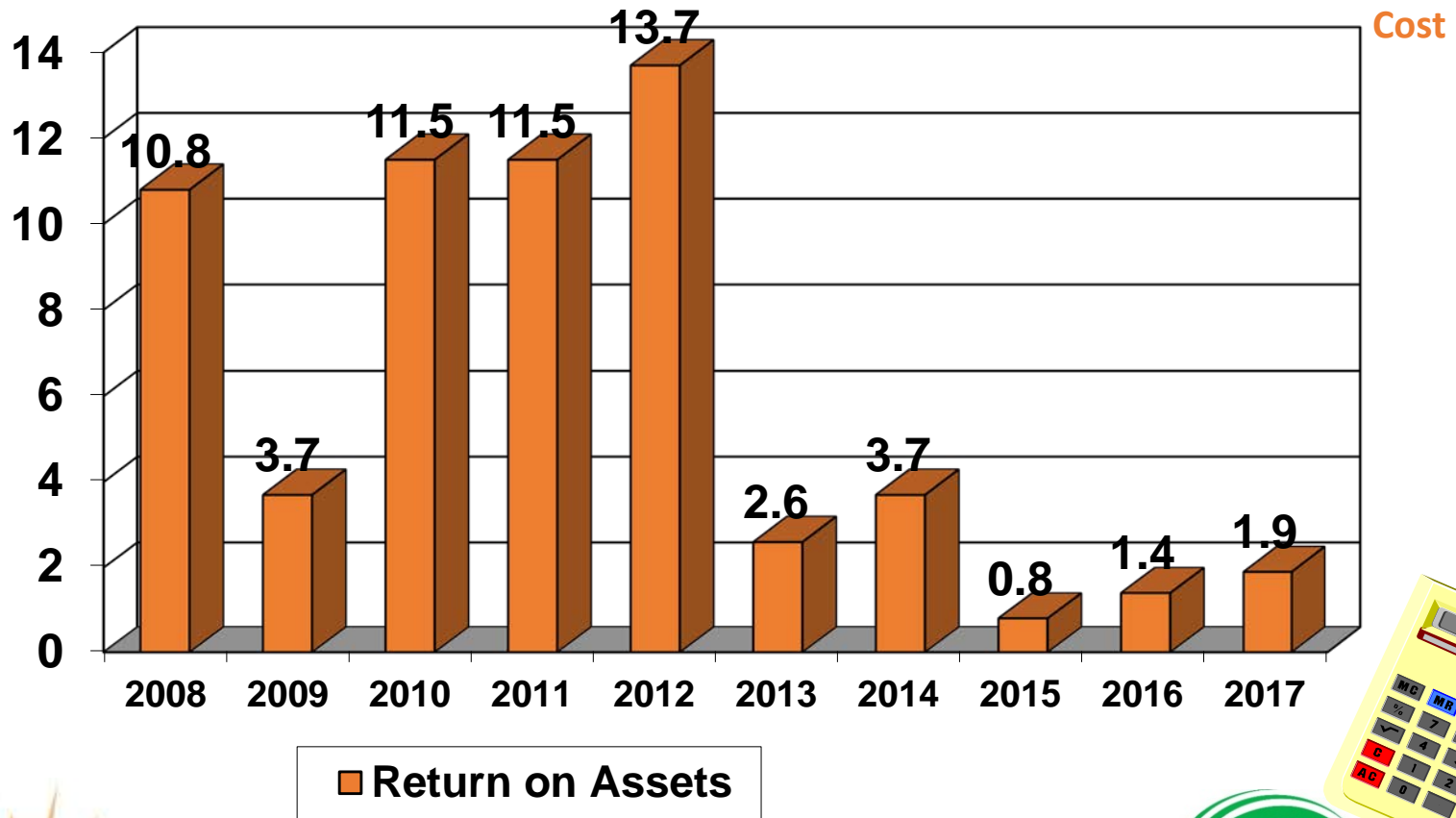


■ Rate of return cost

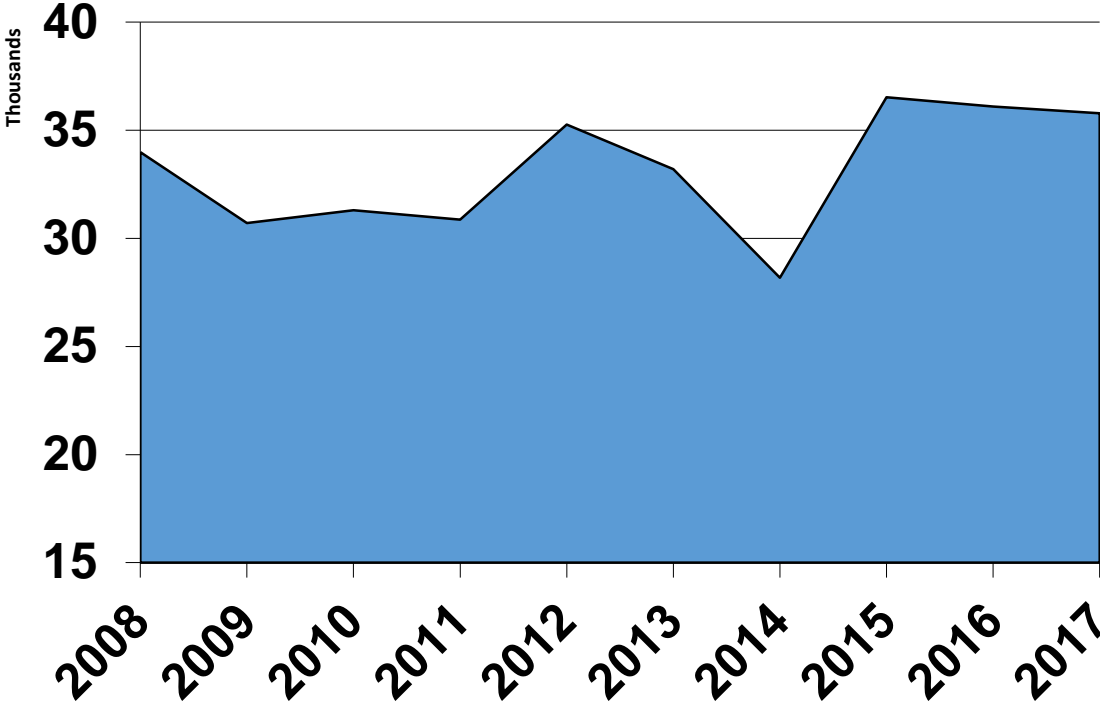


Profitability Analysis

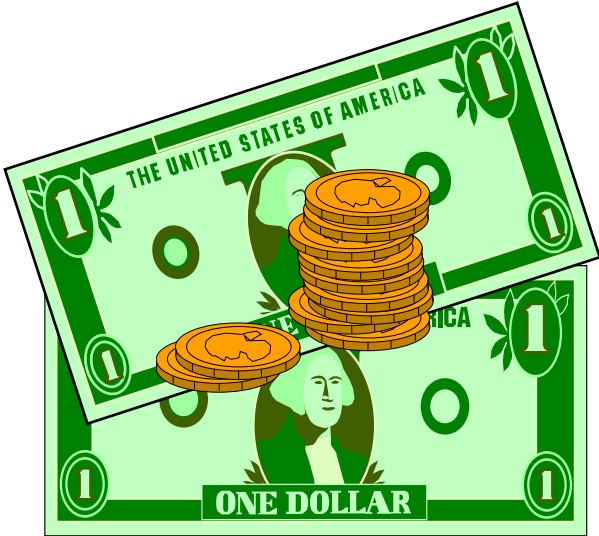
Rate of Return on Assets



Non-farm Income

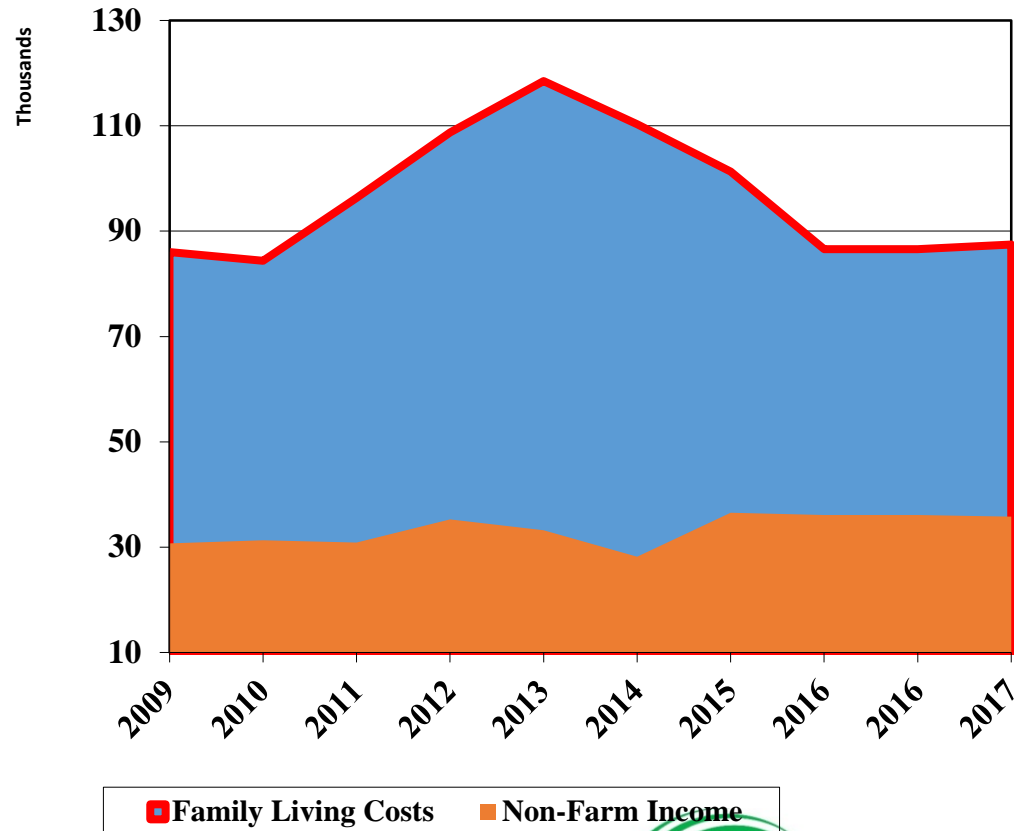


■ Off Farm Income

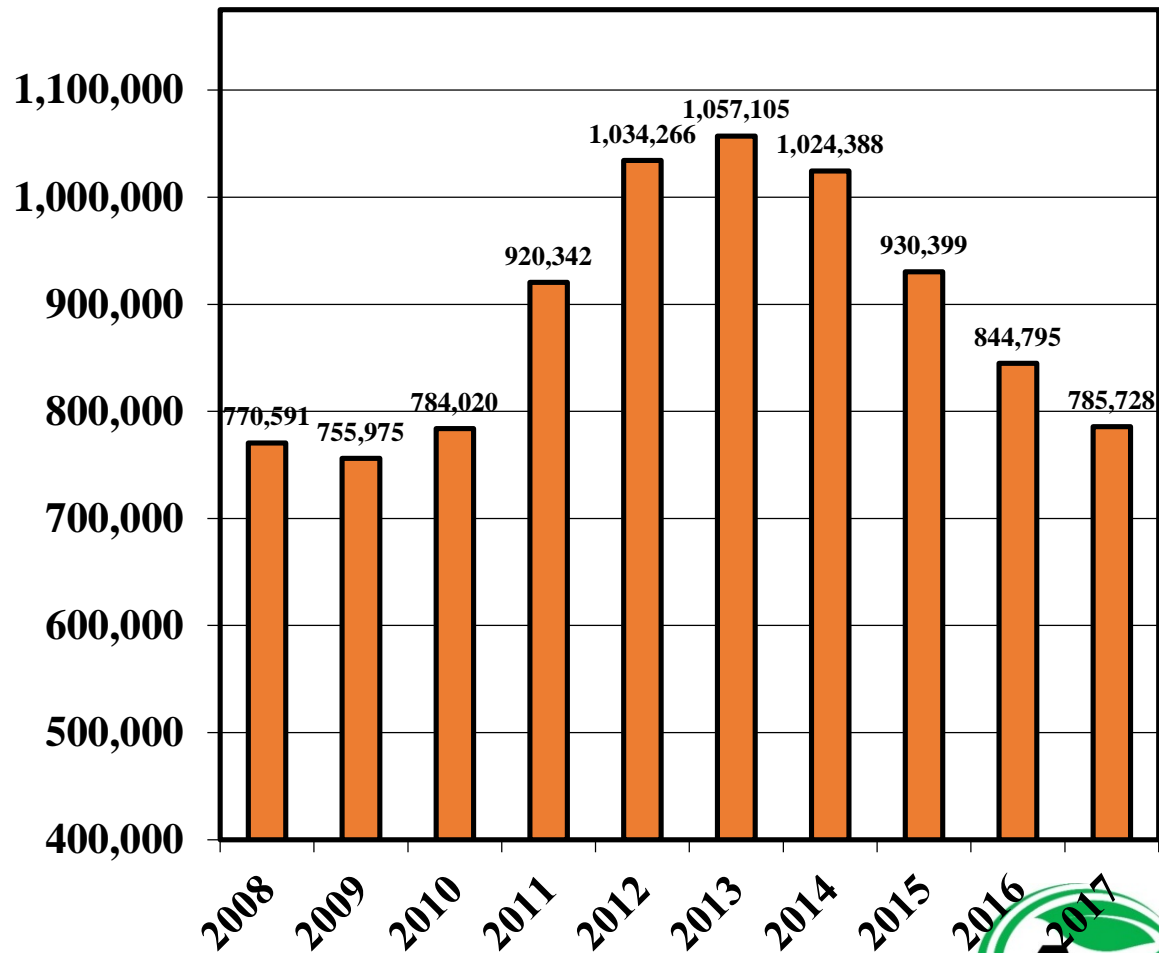


Non-Farm Income & Family Living

- Family living has stabilized over the past few years
- In many cases, the employee benefits of off-farm employment adds significant value
- Non-farm income pays for more than half of household and personal spending

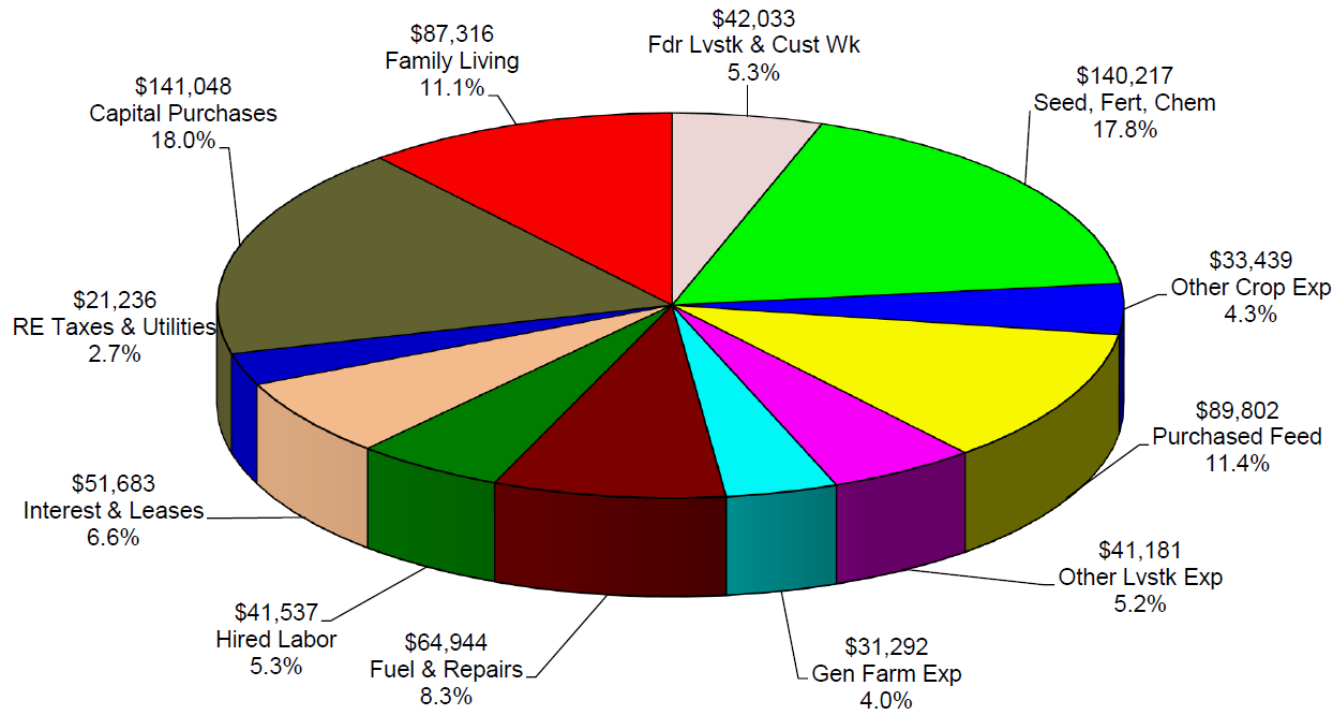


Money Spent by the Average Farmer South of I 94 in Minnesota



Farm & Family Spending

Each farmer, on average, spent \$785,728 in the Greater Community in 2017



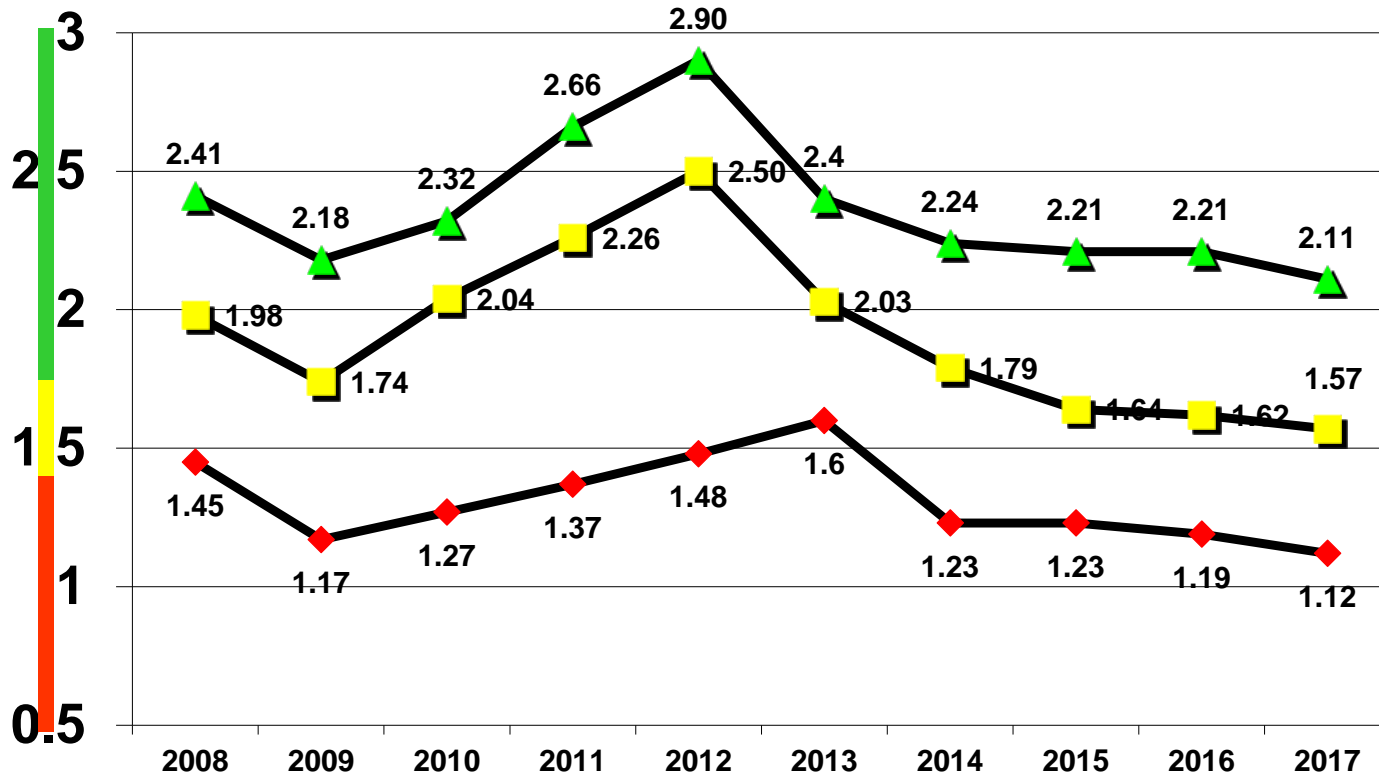
Farm Financial Standards

- The American Bankers Association has endorsed the use of sixteen “standards” to rate business performance (see page 20).
- These standards are measures of:
 - Liquidity
 - Solvency
 - Profitability
 - Repayment Capacity
 - Financial Efficiency



Current Ratio (Liquidity)

Current farm assets / current farm liabilities



◆ Low 20% ■ Average ▲ High 20%



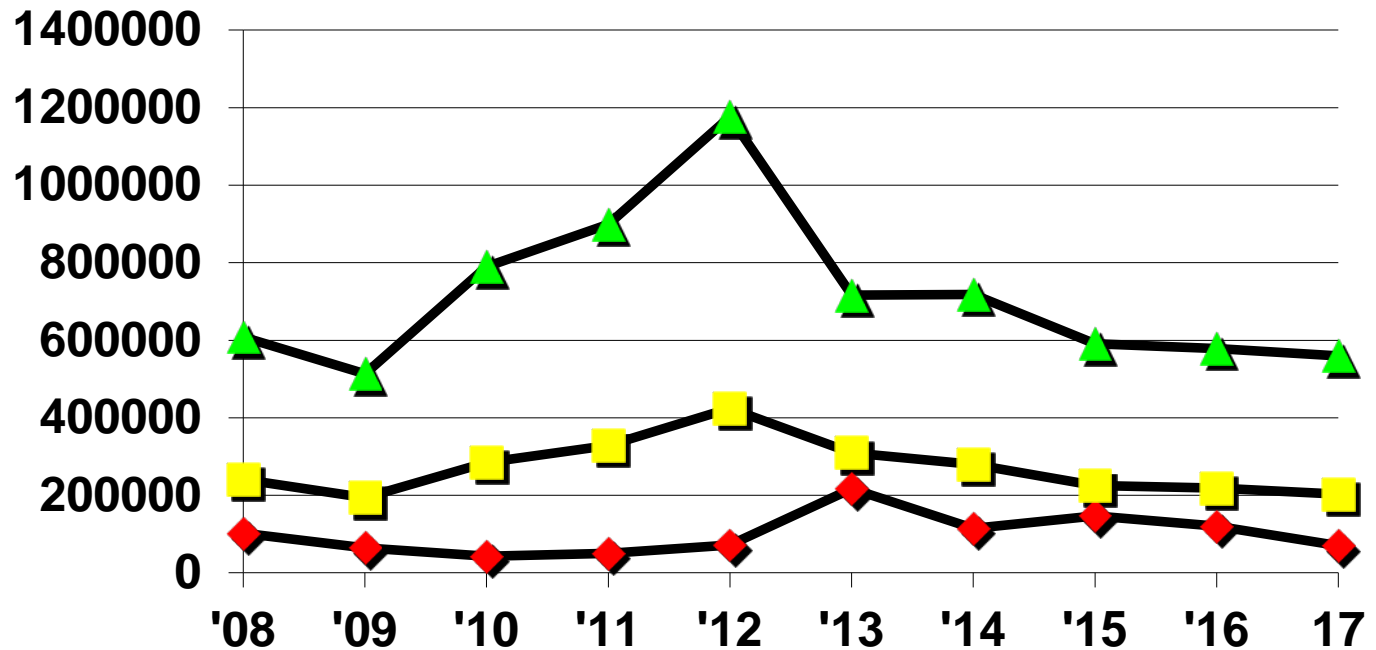
Working Capital (Liquidity)

Current farm assets minus current farm liabilities

•Green
50% of Cash
Operating exp.

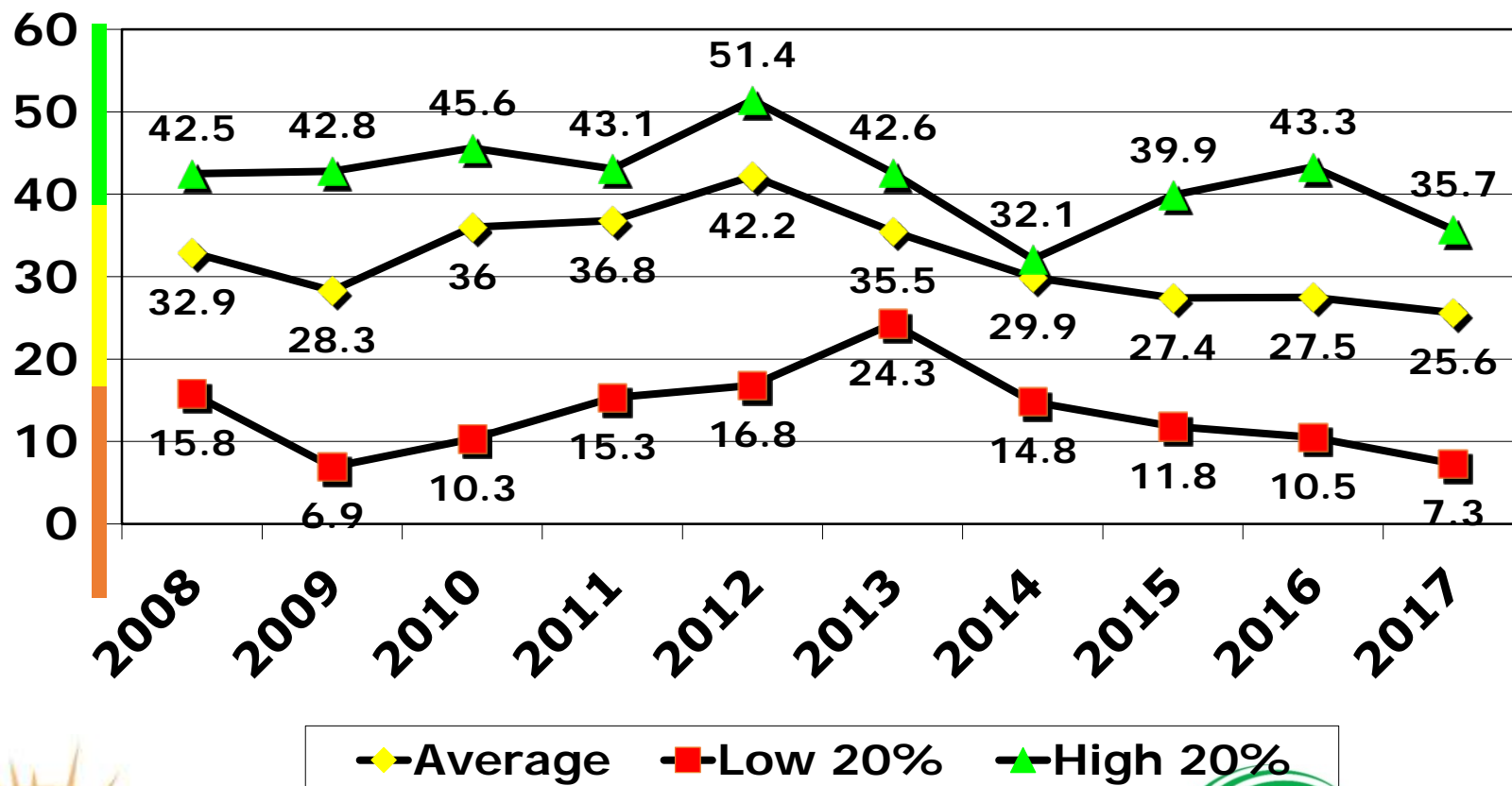
•Yellow
20 to 50 % of Cash
Operating exp.

•Red
<20 % of Cash
Operating exp.

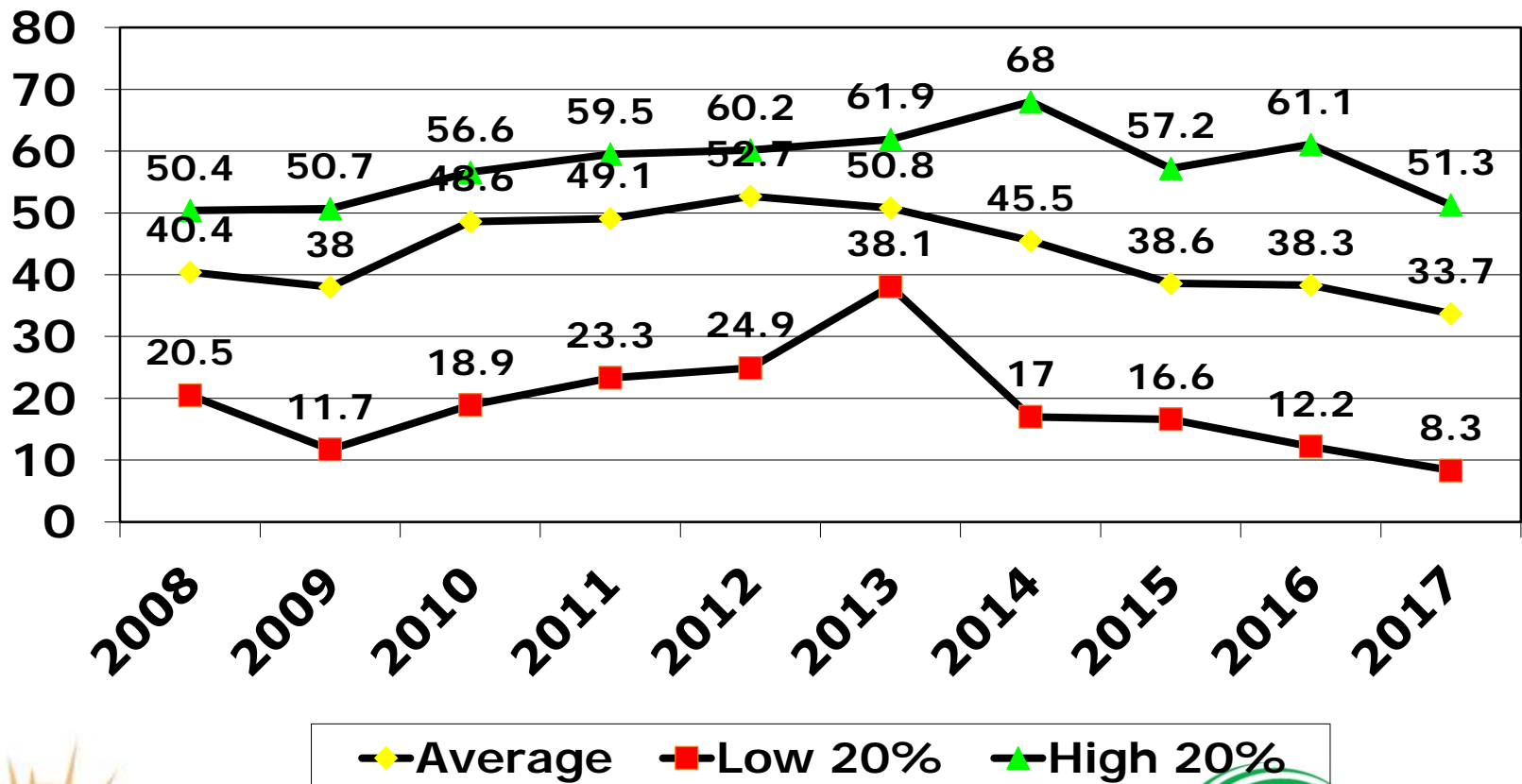


◆ Low 20 % ■ Average ▲ High 20 %

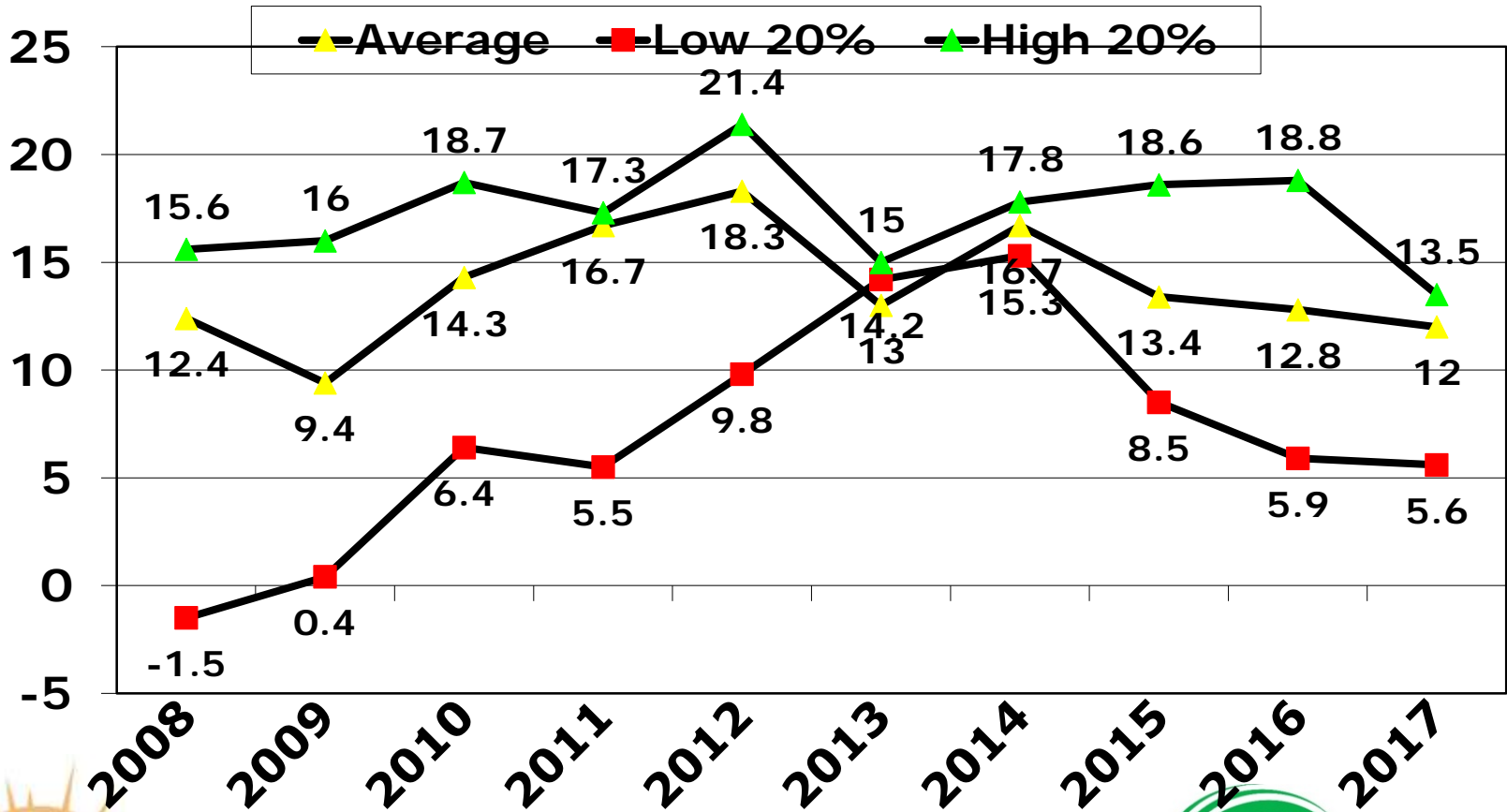
Working Capital to Gross Income All Farms



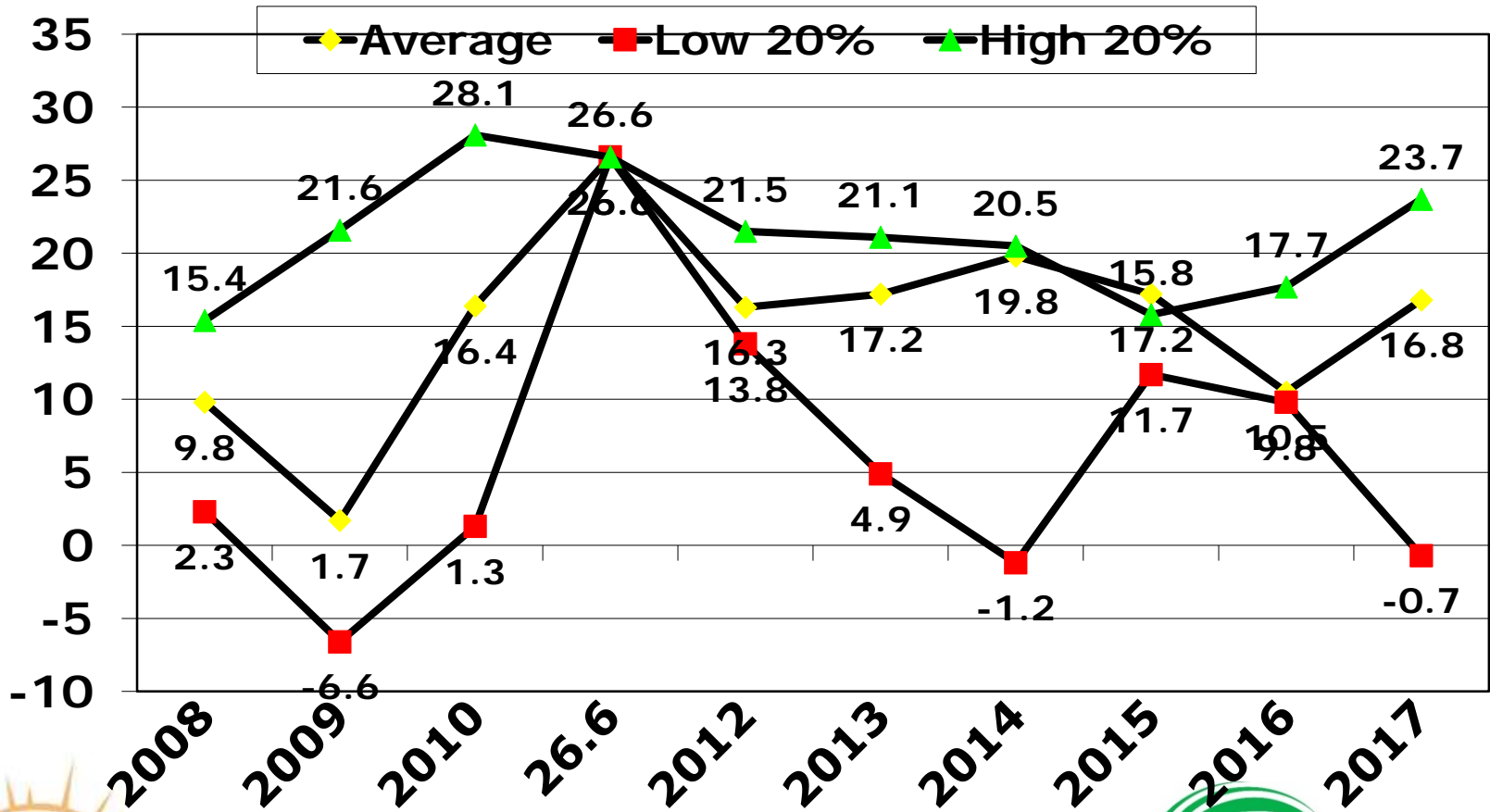
Working Capital to Gross Income Crop Farms



Working Capital to Gross Income Dairy



Working Capital to Gross Income Hog Farms



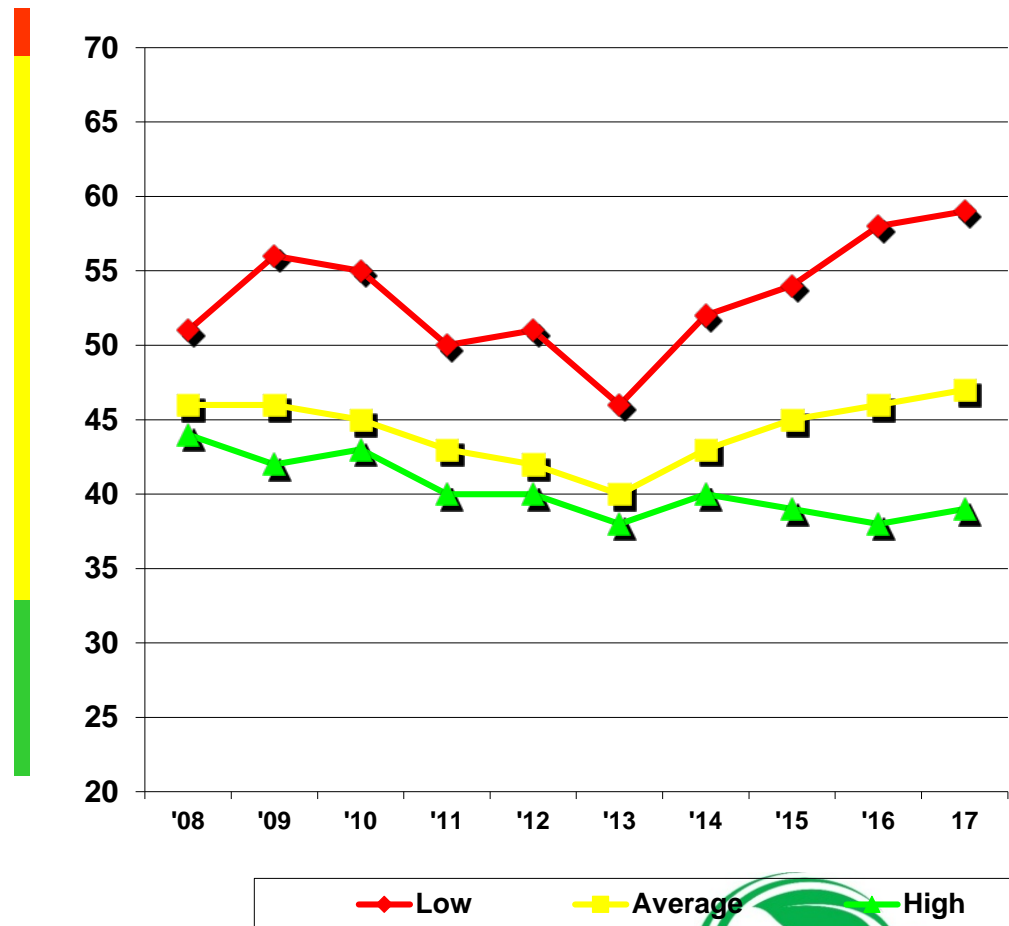
Debt to Asset Ratio (Solvency)

Total farm liabilities / total farm assets

•Red
>70 % in Debt

Yellow
30 to 70 % Debt

•Green
<30 % Debt



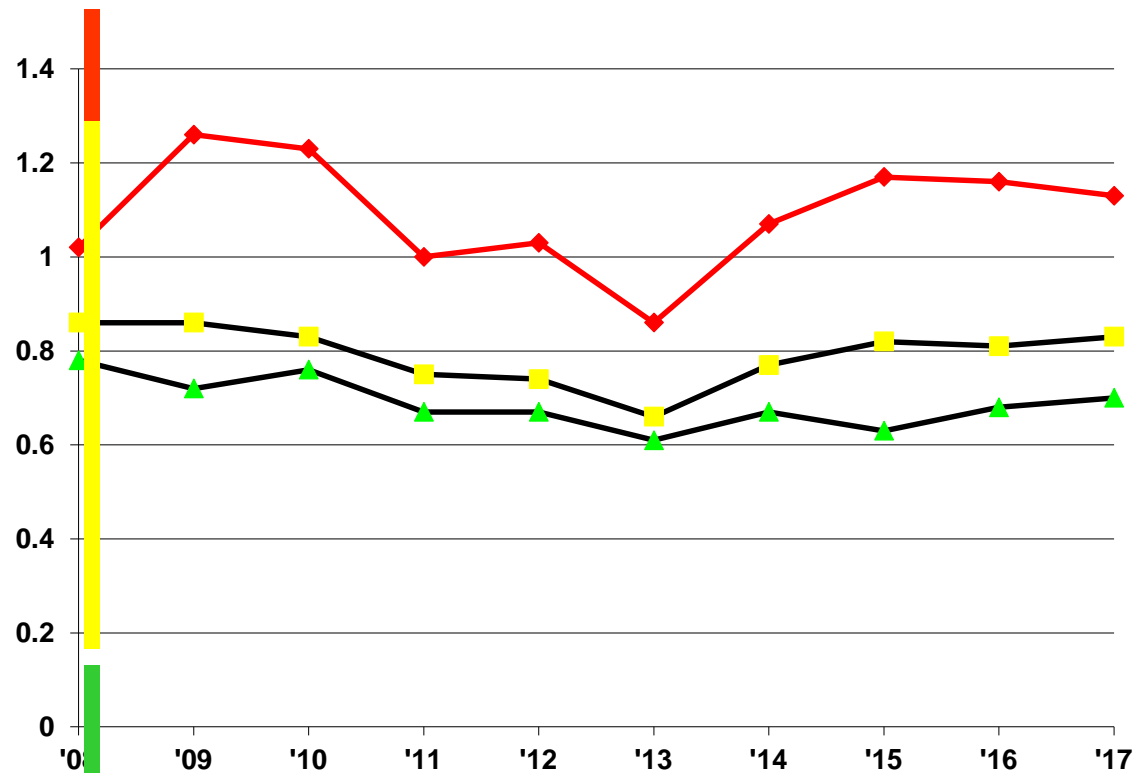
Debt to Equity Ratio (Solvency)

Total farm liabilities / total farm equity

Red
>230 % Liabilities

Yellow
<42—230 % Liabilities

Green
<42 % Liabilities



◆ Low 20 %
 ■ Average
 ▲ High 20 %



Rate of Return on Farm Assets (Profitability)

[Net farm income from operations + farm interest expense minus value of unpaid labor & mgmt] / avg. farm assets

Mostly owned

>5 % Green

1 % to 5 % Yellow

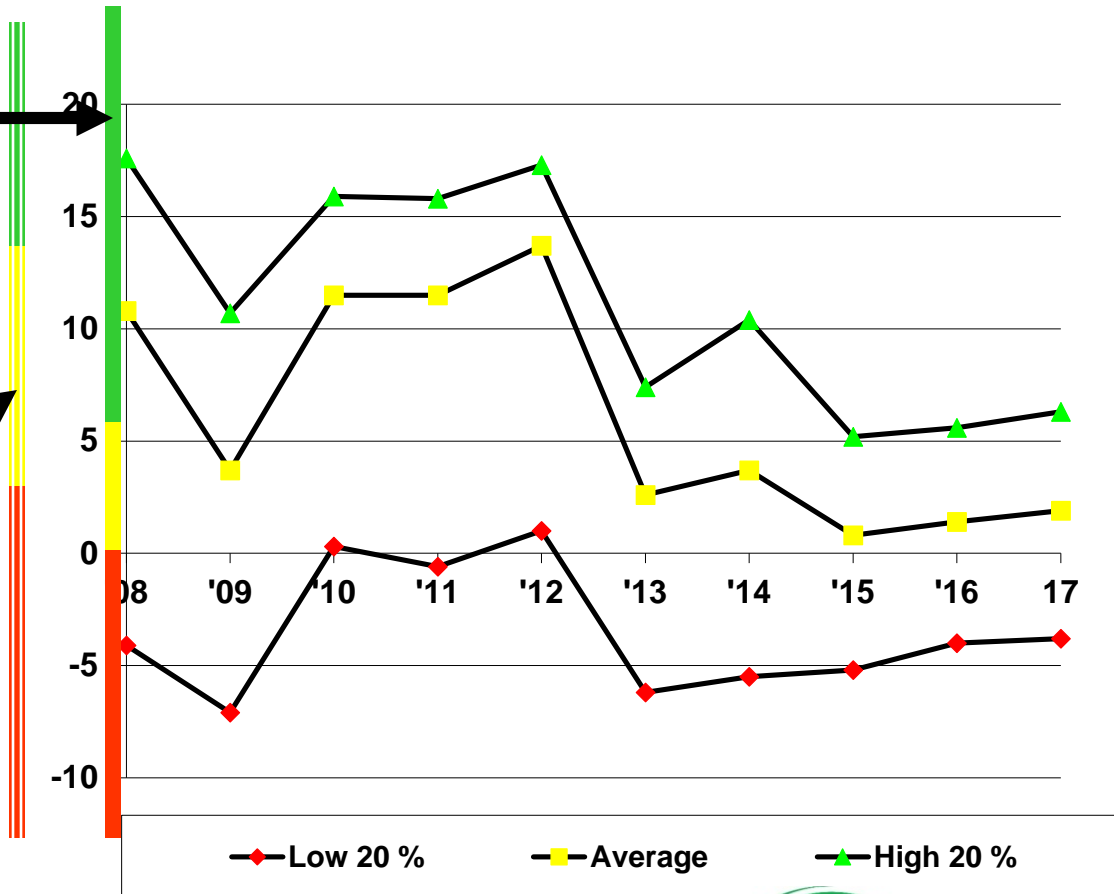
<1 % Red

Mostly Rented/Leased

>12 % Green

3 % to 12 % Yellow

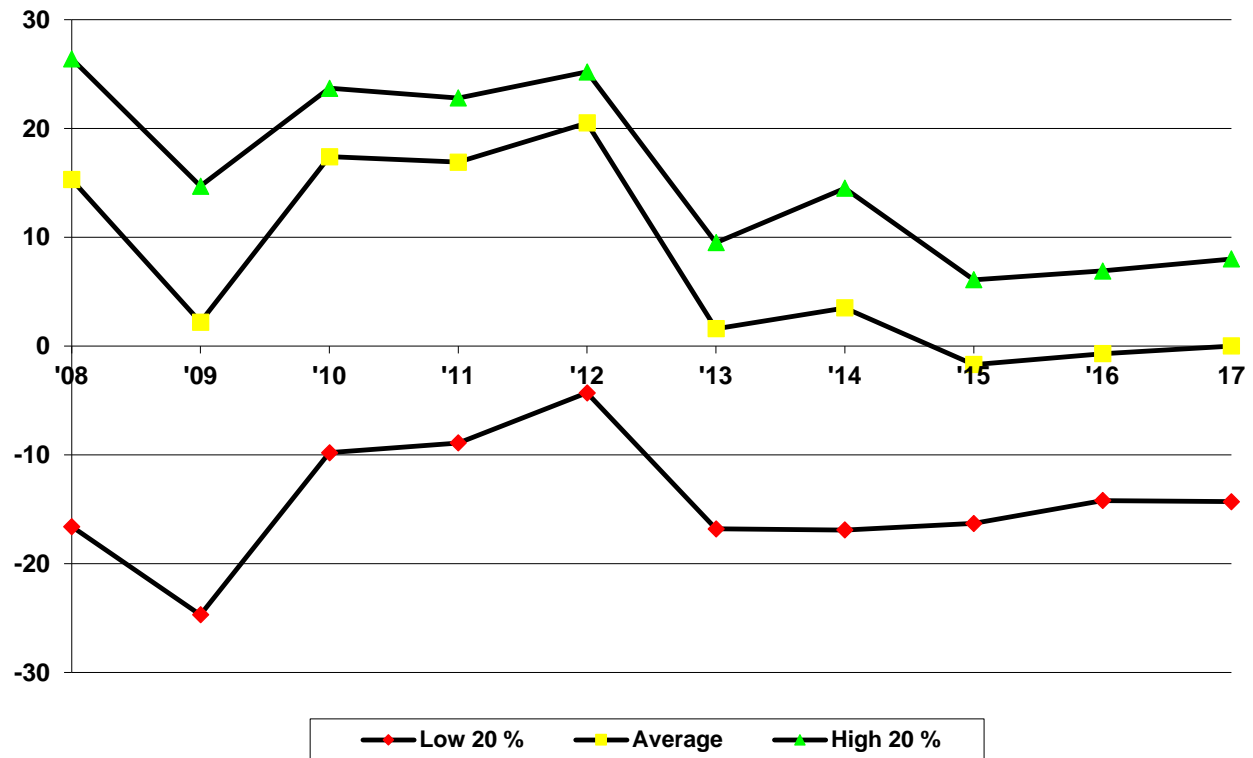
<3 % Red



Rate of Return on Farm Equity (Profitability)

[Net farm income from operations minus value of unpaid labor & mgmt] / average farm equity

Watch your trend information to be sure you are heading in the desired direction.



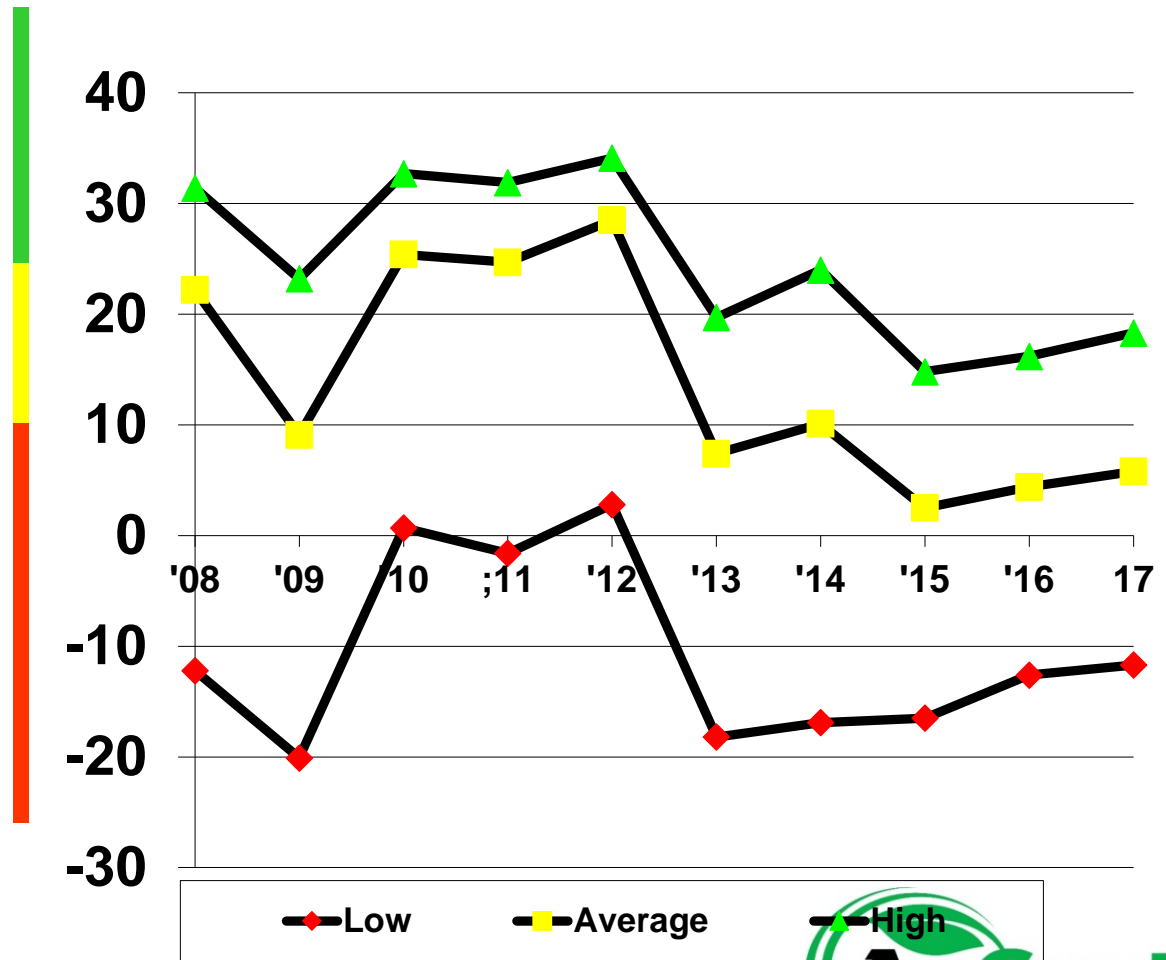
Operating Profit Margin Ratio (Profitability)

[Net farm income from operations + farm interest expense minus value of unpaid labor & mgmt] / gross revenue

>25 % Green

10 % to 25 %
Yellow

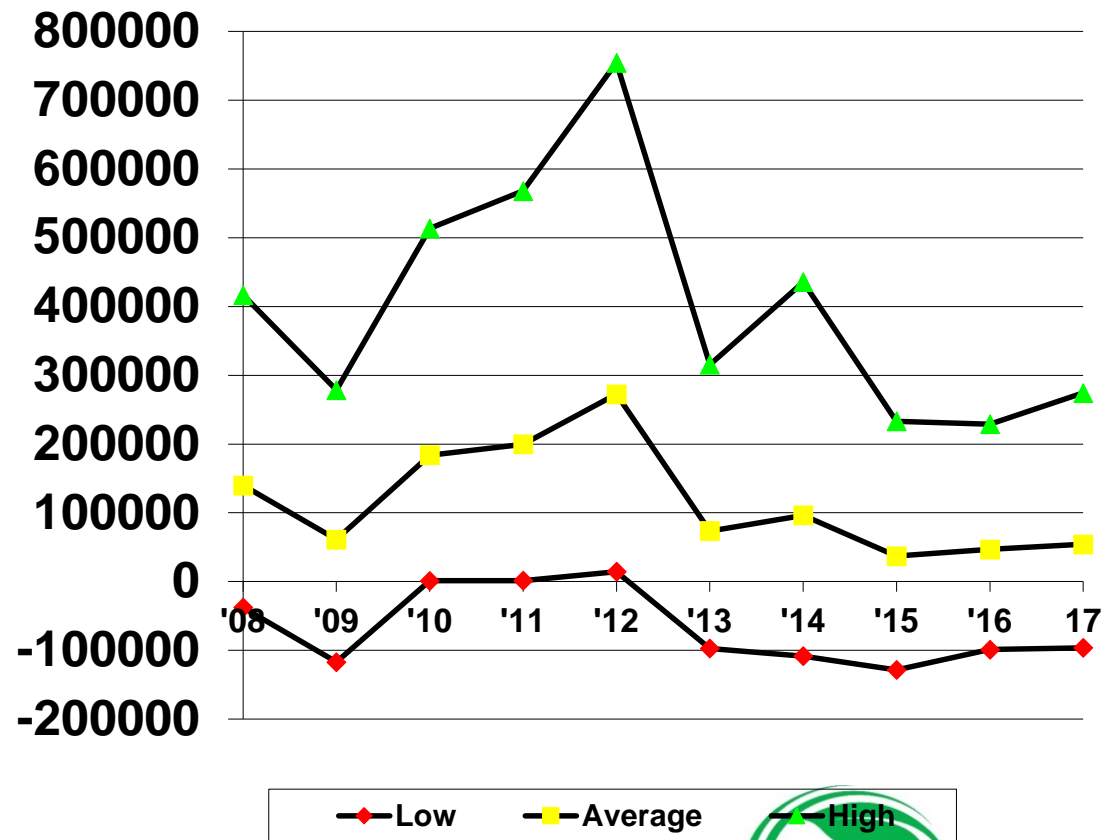
<10 % Red



Net Farm Income (Profitability)

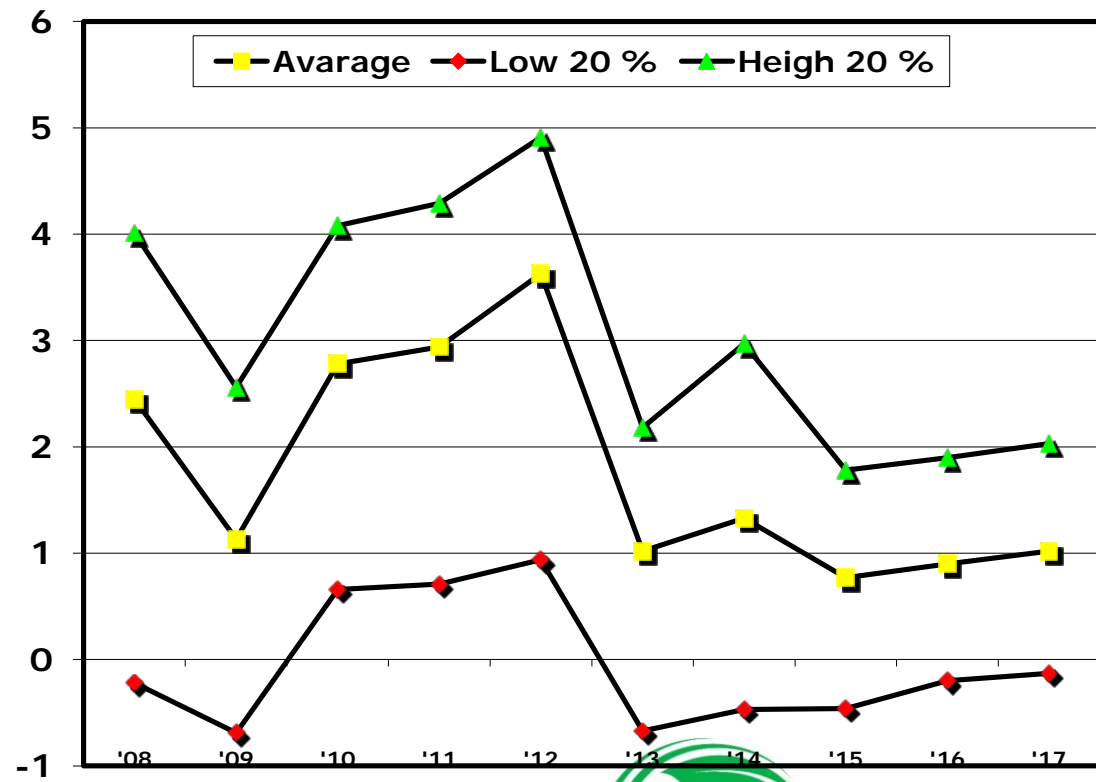
[Farm revenues minus farm expenses] + gain or loss on the sale of farm capital assets

Watch your trends closely. Trends will be variable because of the cyclical nature of agriculture



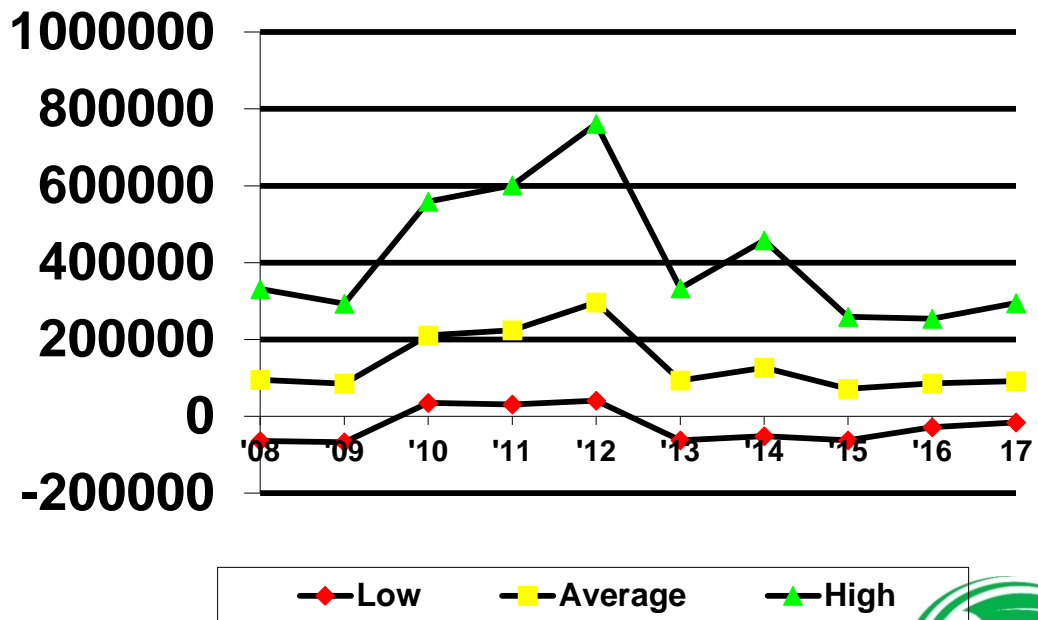
Term Debt Coverage Ratio

>150 % Green
110 to 150 yellow
<110 % Red

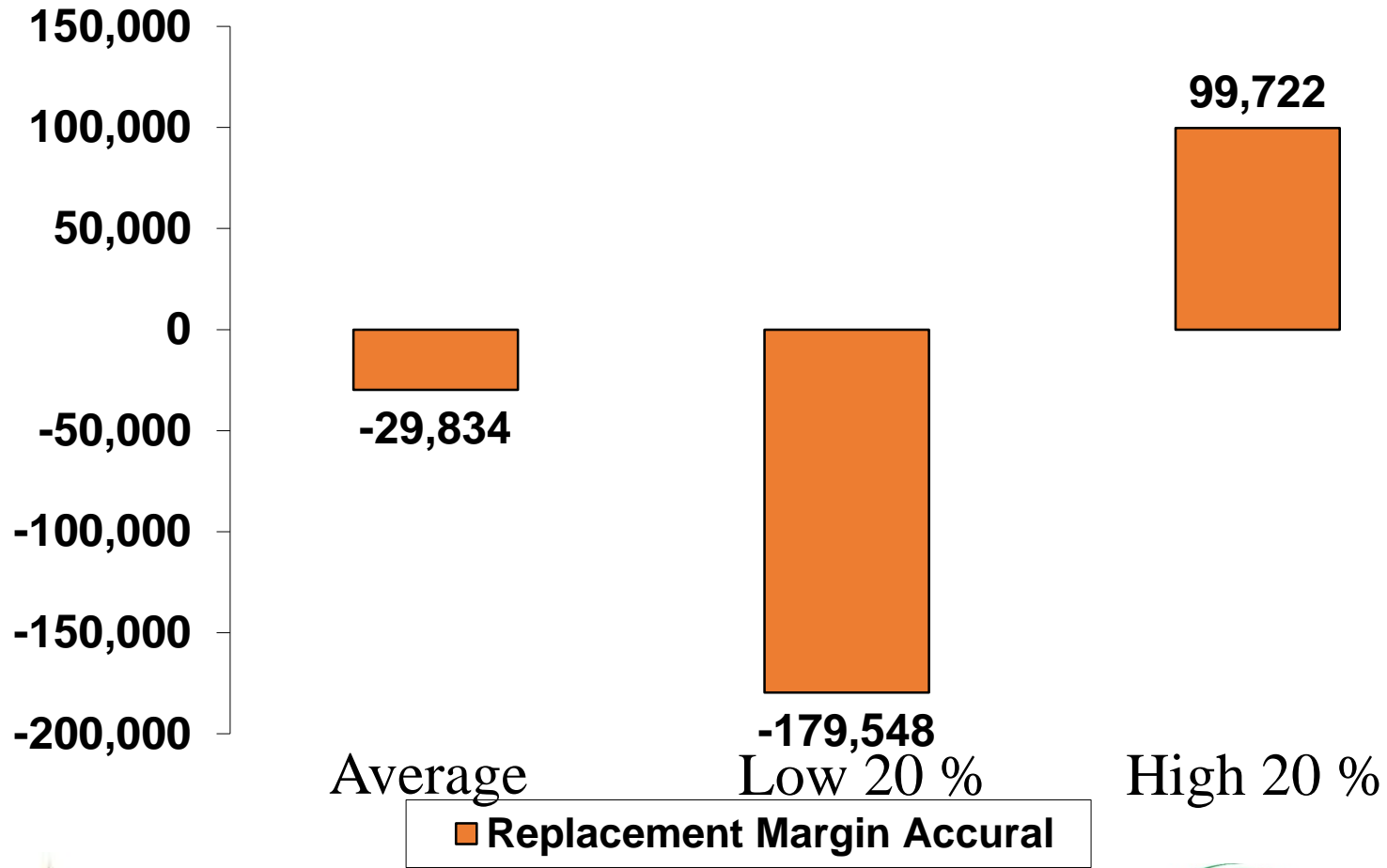


Capital Replacement & Term Debt Repayment Margin (Repayment Capacity)

Net farm income from operations + non-farm income + depreciation minus income tax minus family living minus old operating debt payments minus principal payments on current term debt minus principal payments on capital leases minus payments on personal liabilities

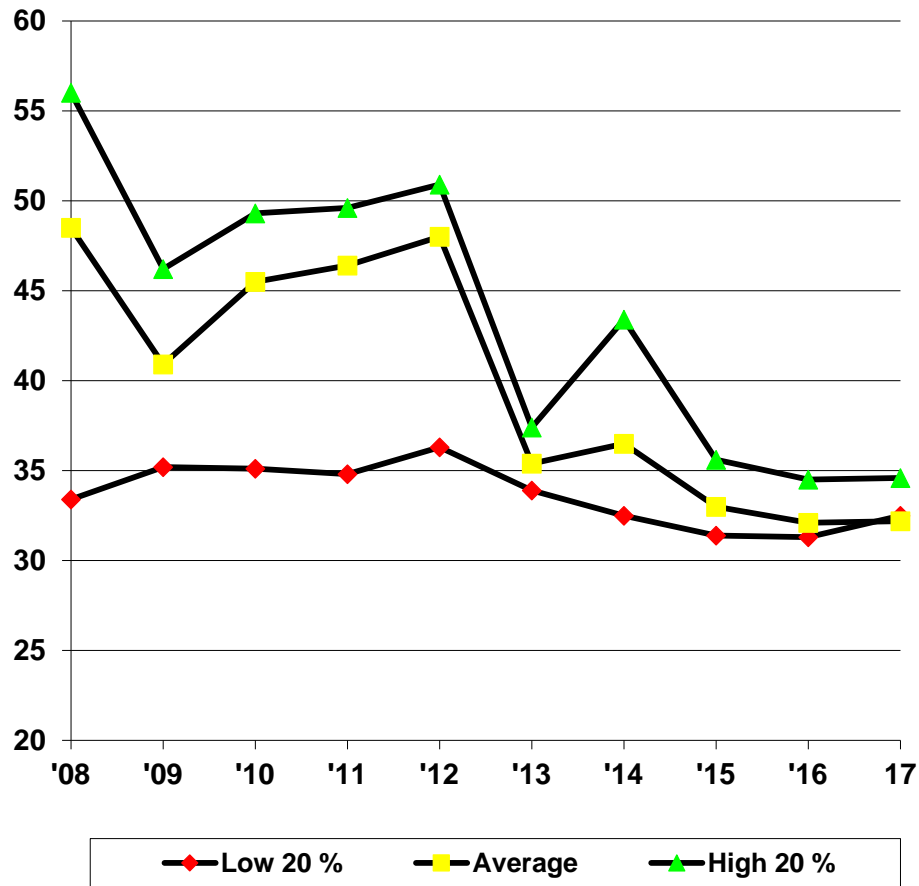


Capital Replacement Margin 2017

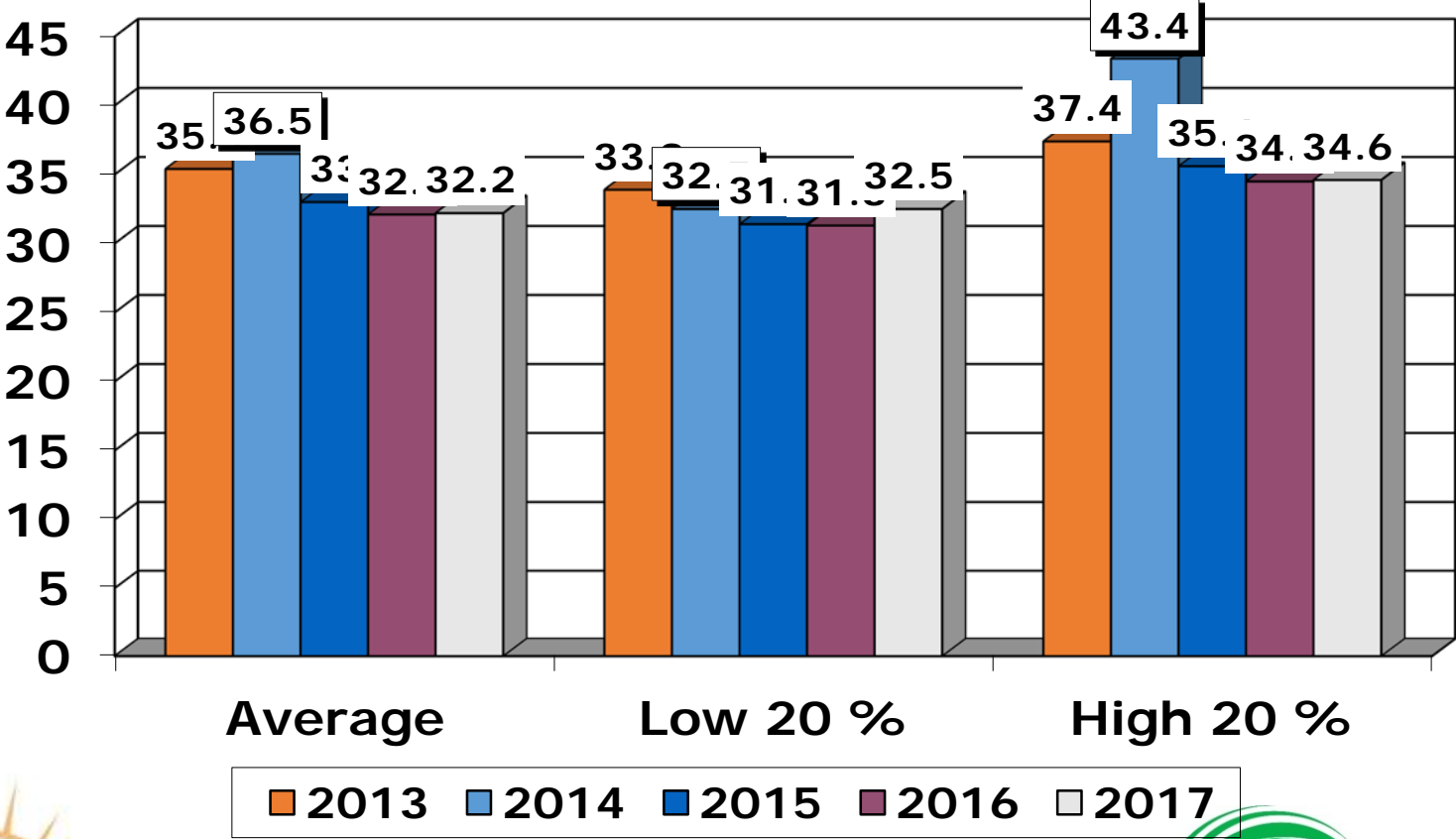


Asset Turnover Rate (Financial Efficiency)

Gross revenues / average total farm assets



Asset Turnover Rate (Cost)



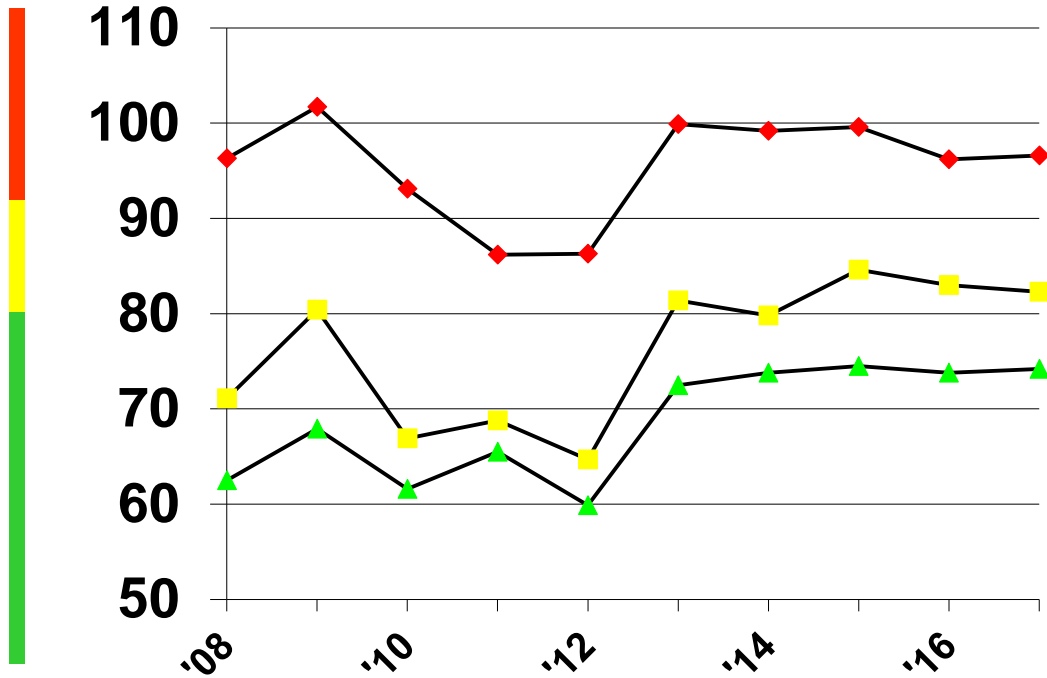
Operating Expense Ratio (Financial Efficiency)

[Total operating expenses minus depreciation] / gross revenue

>85 % is Red

75 % to 85 % Yellow

<65 % is Green



Depreciation Expense Ratio (Financial Efficiency)

Depreciation expense / gross revenue



◆ Low ■ Average ▲ High



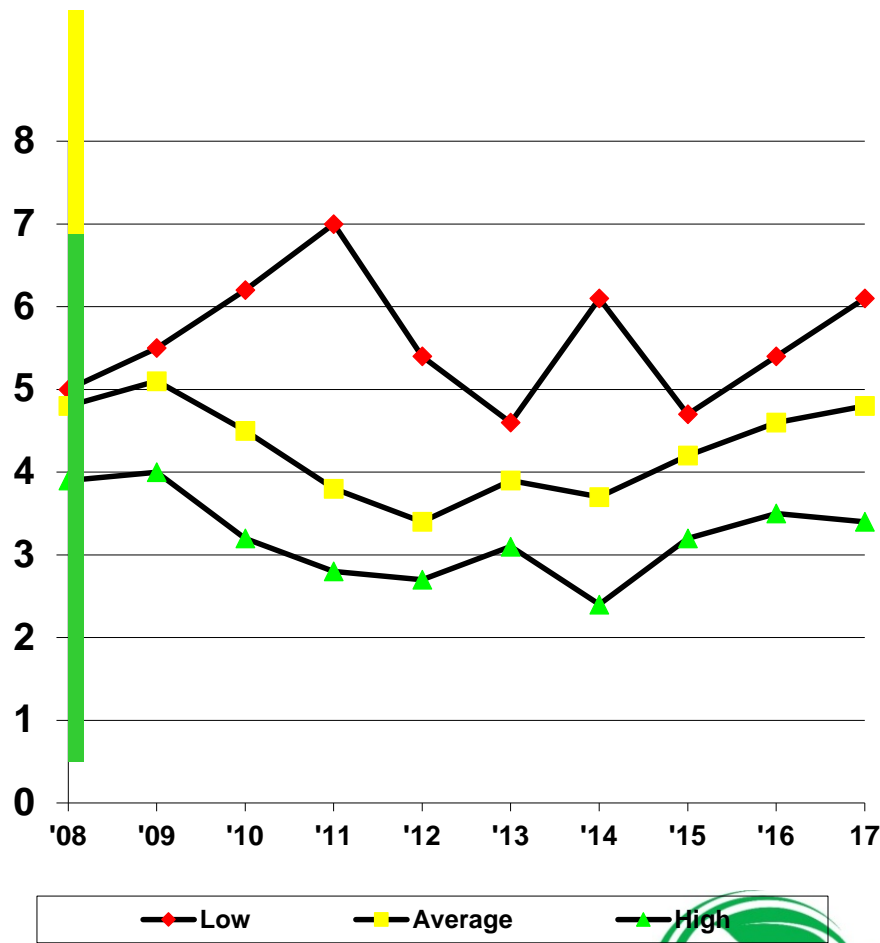
Interest Expense Ratio (Financial Efficiency)

Total farm interest expense / gross revenue

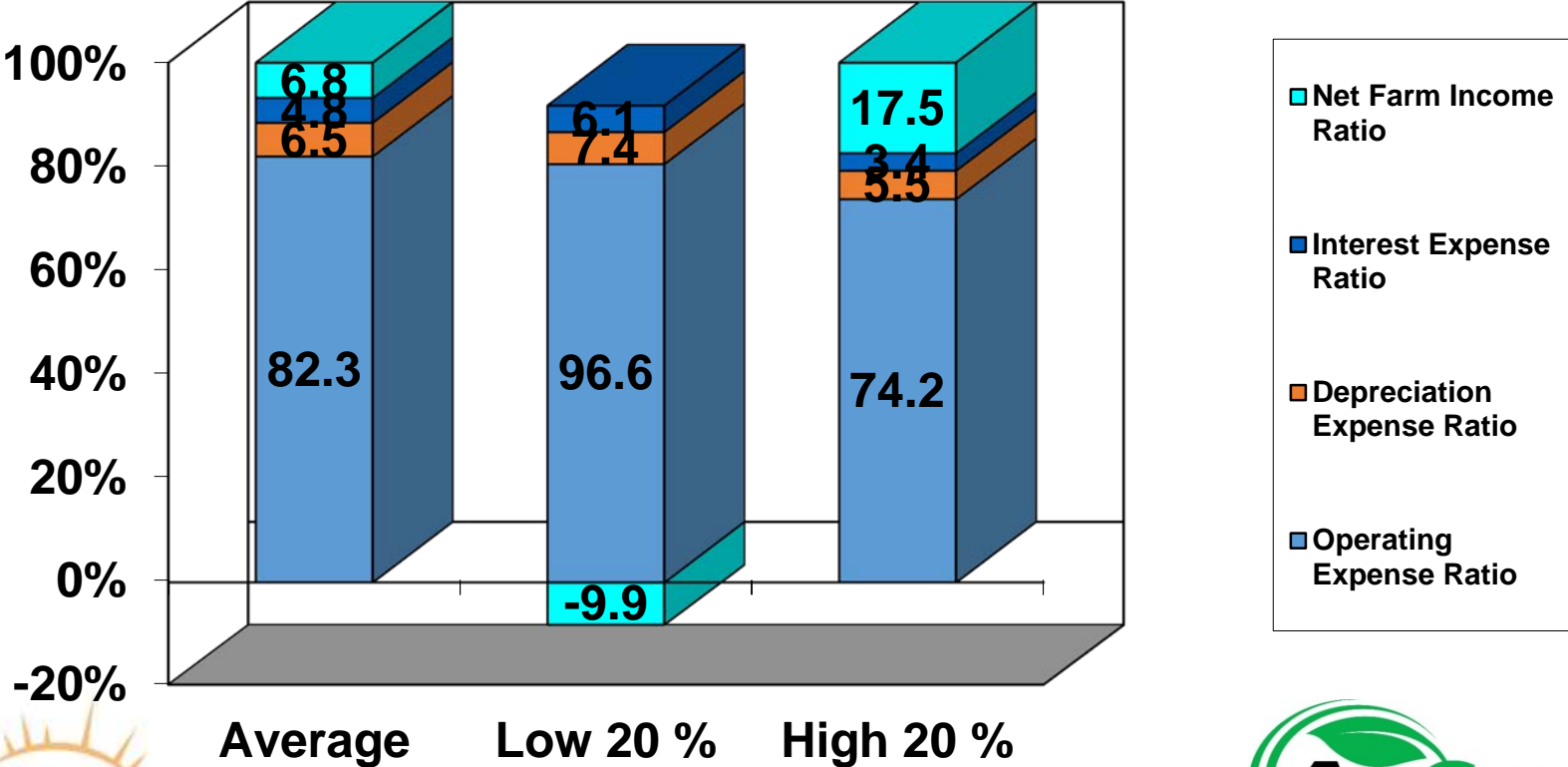
>20 % Red

12 % to 20 % Yellow

<12 % Green



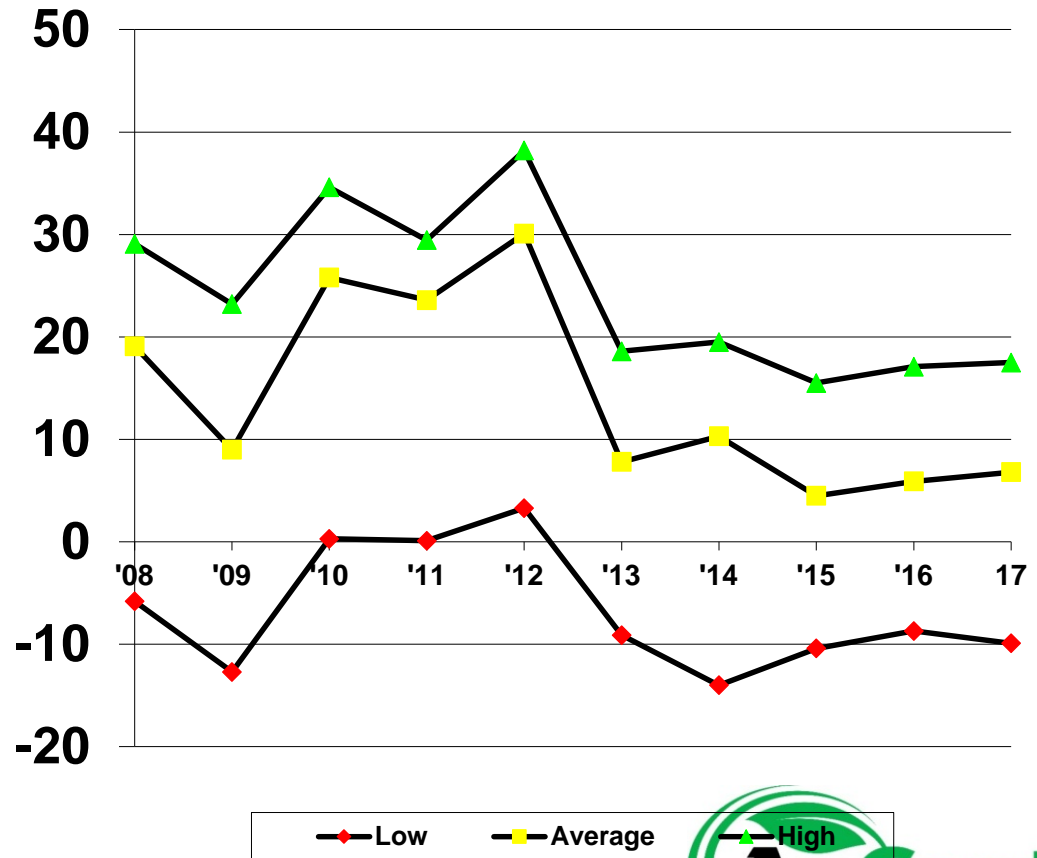
Operating Expense Ratio 2017



Net Farm Income from Operations (Financial Efficiency)

Net farm income from operations / gross revenue

Watch your trends
Closely. Trends will be
variable because
of the cyclical
nature of agriculture.



New Economic Realities- Financial Metrics Source Dr. Kohl

<u>Measure</u>	<u>Code Red</u>	<u>Code Yellow</u>	<u>Code Green</u>
Working Capital/Rev.	< 15%	15-33%	> 33%
Debt/Asset Ratio	> 60%	40-60%	< 40%
Credit Score	< 650	650-700	700+
Op. Exp. Revenue (Excluding Depr. & Int.)	> 80%	70-80%	< 70%
Coverage Ratio	< 125%	125- 200%	> 200%

Conclusions about ratios

- Your business trend lines are priceless
- Compare information for the last 5 years
- Compare your data to your peer group
- How does your business stack up?
- What are your new strategies?



Managing in volatile times?

- How do you improve your bottom line?
 - Conduct Variance Analysis (planned vs. actual)
 - Position your balance sheet
 - Manage 100 things 1% better each year
 - Manage the operation to be on the right side of the financial divide



How do you survive the volatile ride ahead?

- Conduct sensitivity analysis cashflows
- Aspire to be a top half marketer by having a written marketing plan
- Form peer advisory groups
- Form strategic alliances
- Capture economies of scale, reducing costs, improving asset utilization



Have a Great Year in 2018!

Make sure you are on your A game in managing your operation this year!

