



How Profitable Dairy Farms Make Money

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Key Points

⌘ Variability

⌘ Know their numbers

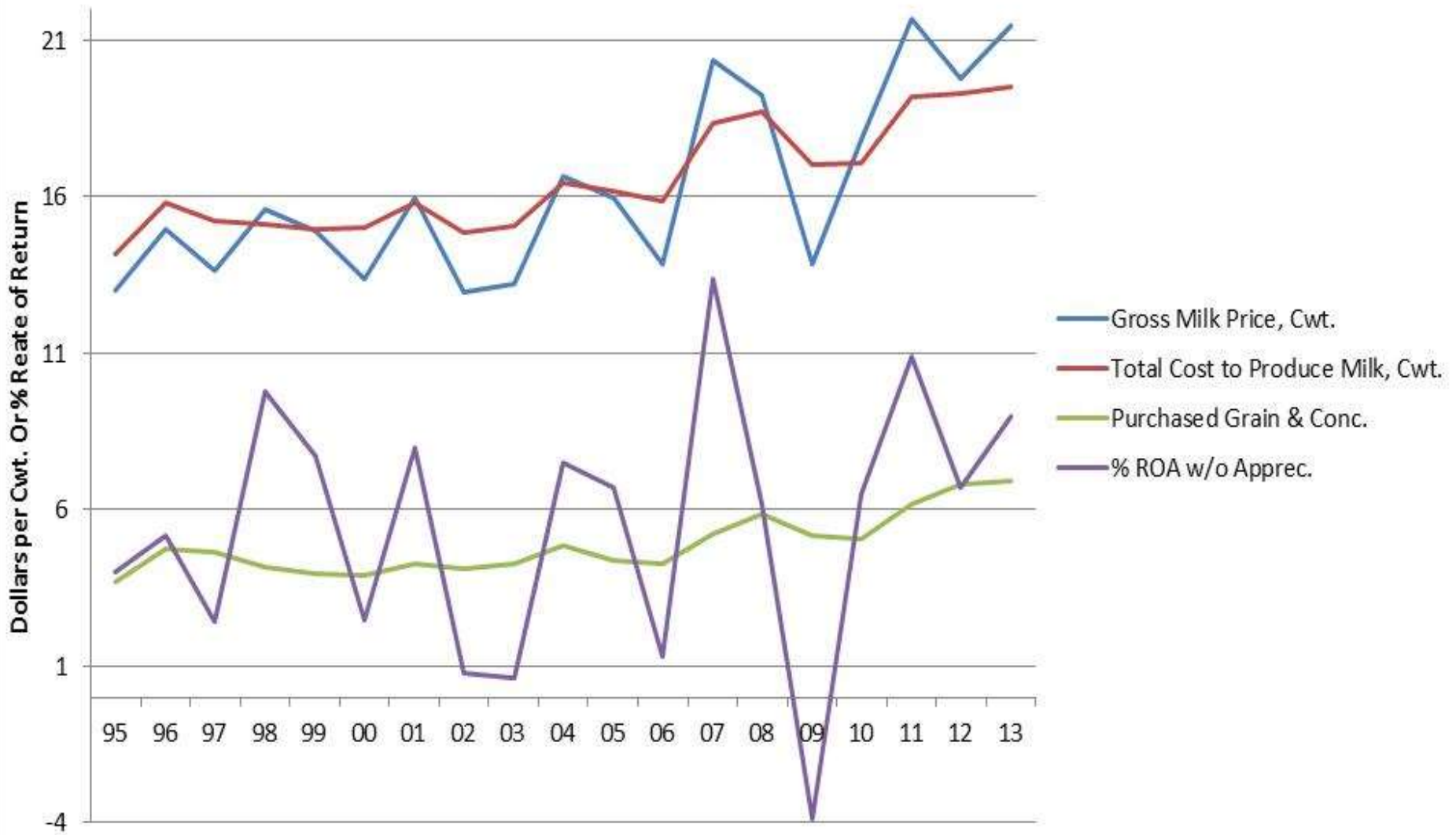
⌘ People

⌘ Continuous Improvement

⌘ Decision Making

19 Years of Variability

DFBS Farms, New York State, 1995 - 2013



2013 Estimated by Jason Karszes

Management Implications

- ⌘ What is done during good years?
- ⌘ What is done during poor years?
- ⌘ How is the business positioned?
- ⌘ Self insurance vs risk management plans
 - ☑ Working Capital
 - ☑ Debt Level
- ⌘ Milk Marketing



Know Numbers

- ⌘ Know numbers
- ⌘ Understand profitability
- ⌘ Question everything
 - ☑ Will it work on this farm?
 - ☑ How will you know?
 - ☑ When will you know?



How is Progress Measured?

- ⌘ What is the primary means many businesses measure success?
- ⌘ What should they be measuring?
- ⌘ Why are we concerned with profits?
 - ☑ Long term success
 - ☑ Net worth growth



Cash

⌘ What is in the check book

⌘ From many sources

- ☑ operations - milk sales etc.

- ☑ sale of assets

- ☑ off farm income

- ☑ new loans

- ☑ by not paying bills

- ☑ by not reinvesting or taking care of day to day operations



Cash

- ⌘ Business necessity - no cash no business
- ⌘ Management function
- ⌘ Do sources of cash impact current profitability?
- ⌘ Future profitability?



Profitability

- ⌘ What is left over after all expenses are subtracted from all income.
- ⌘ Cash and non-cash income and expenses
- ⌘ Necessary for long-term success
- ⌘ Will I be able to:
 - ☑ replace equipment?
 - ☑ maintain family lifestyle?
 - ☑ build net worth?



Unprofitable Business Paying its' Bills

- ⌘ Little or no debt
- ⌘ Increasing AP's
- ⌘ Living off inventories
- ⌘ Living off depreciation
- ⌘ Lack of withdrawals
- ⌘ Living off past earnings
- ⌘ Non-farm income
- ⌘ Sale of assets



Profitable Business Can't Pay its' Bills

- ⌘ Growing business
- ⌘ Rapid payment of debt
- ⌘ Large withdrawals
- ⌘ Unusual conditions such as
 - ☑ Increasing inventory prices
 - ☑ High crop production into inventory



Resources

- ⌘ Cornell Dairy Farm Business Summary
- ⌘ Farm Credit Dairy Farm Summary
- ⌘ Farm Credit Large Dairy Benchmark
- ⌘ Dehm & Associates Dairy Dashboard
- ⌘ Accountants
- ⌘ Lender evaluations



Profitability Equation

$$\text{Profitability} = \frac{\text{Volume} \times \text{Margin}(\text{Price} - \text{Cost})}{\text{Investment}}$$

- ⌘ Operations Management is focused on the top of the equation
- ⌘ Strategic Management is focus of the top and bottom of the equation



Decision Tool

⌘ Only four areas to increase profits

☑ Increase volume

☑ Increase price

☑ Decrease costs

☑ Decrease investment

⌘ Every decision impacts this equation

☑ What is expected to change?

☑ What does change?

PRODUCTION COST BY HERD SIZE
169 New York Dairy Farms, 2012

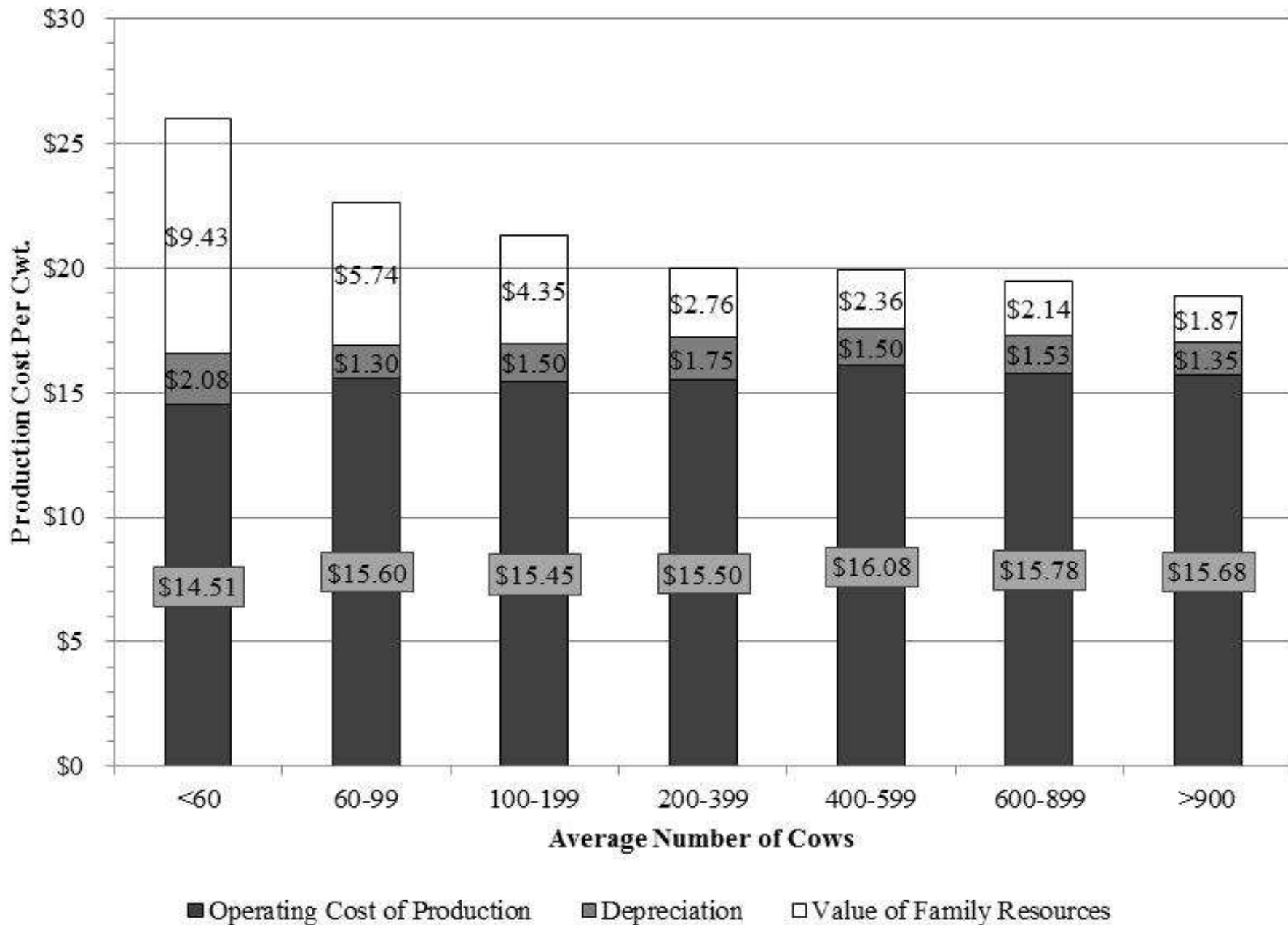




Table 47.

**COWS PER FARM AND FARM FAMILY INCOME MEASURES
169 New York Dairy Farms, 2012**

Number of Cows	Number of Farms	Average Number of Cows	Net Farm Income Without Appreciation	Net Farm Income Per Cow	Labor & Management Income Per Operator	Return to All Capital Without Appreciation
Under 60	12	43	\$26,548	\$619	\$-9,517	-2.5%
60 to 99	16	77	42,788	553	3,195	-0.2%
100 to 199	26	145	87,695	606	12,416	1.9%
200 to 399	19	307	178,617	582	31,121	4.0%
400 to 599	25	495	254,973	515	39,220	4.1%
600 to 899	31	746	482,727	647	92,785	5.4%
900 & over	40	1,402	1,006,695	718	207,649	6.8%



Looking at Inputs

⌘ What is total cost of utilizing another unit of input?

☑ Cost of the input

☑ Change in costs of other inputs impacted?

☑ Actual supplies

☑ Management

☑ Labor

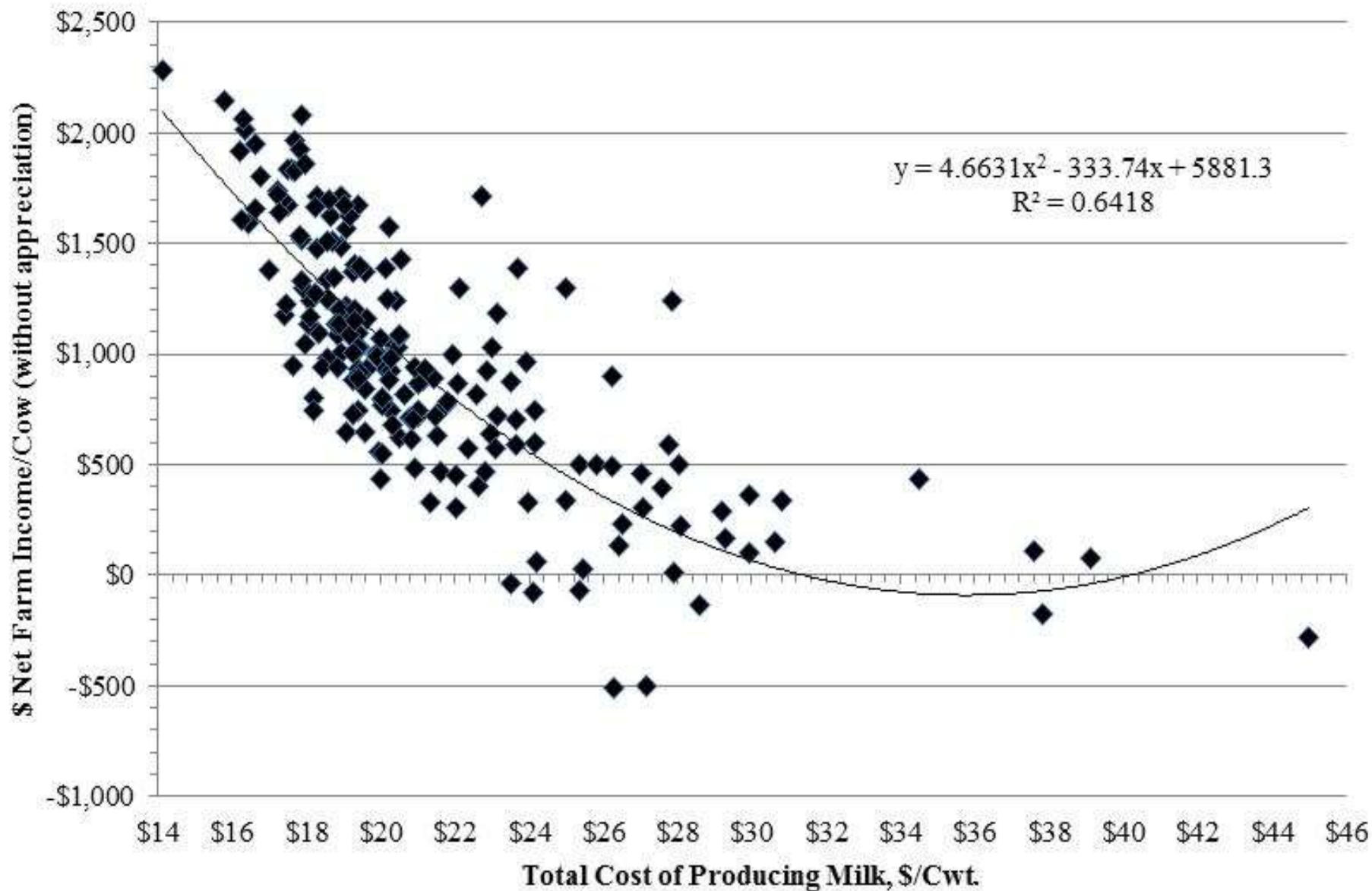


Looking at Inputs

- ⌘ What output is generated?
- ⌘ What is the income that is generated from the output?
 - ☑ After marketing costs - not gross income
- ⌘ Look at volume and price portion of profit equation

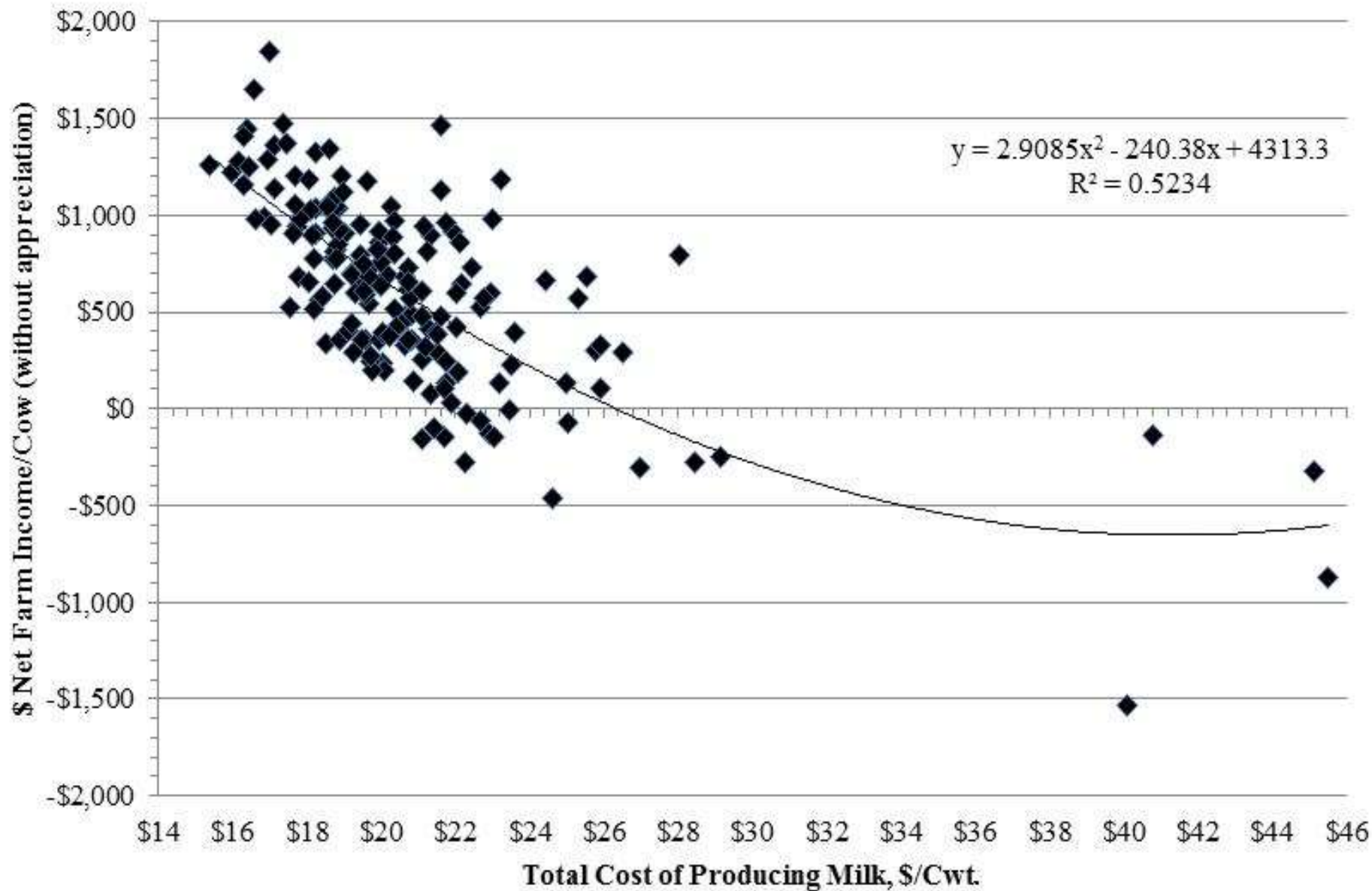
NET FARM INCOME PER COW BY TOTAL COST OF PRODUCING MILK PER HUNDREDWEIGHT

190 New York Dairy Farms, 2011



**NET FARM INCOME PER COW BY TOTAL COST OF PRODUCING MILK PER
HUNDREDWEIGHT**

169 New York Dairy Farms, 2012





Same Farms, 2007-2012

	2007	2008	2009	2010	2011	2012
Operating Cost to Produce Milk per Cwt.						
Top 20%	\$12.92	\$13.74	\$12.57	\$12.28	\$14.33	\$14.96
Remaining 80%	\$13.87	\$15.49	\$13.86	\$14.11	\$15.99	\$16.06
Total Cost to Produce Milk per Cwt.						
	\$15.81	\$16.85	\$15.56	\$15.32	\$17.74	\$18.53
	\$17.25	\$19.02	\$17.23	\$17.42	\$19.58	\$19.81

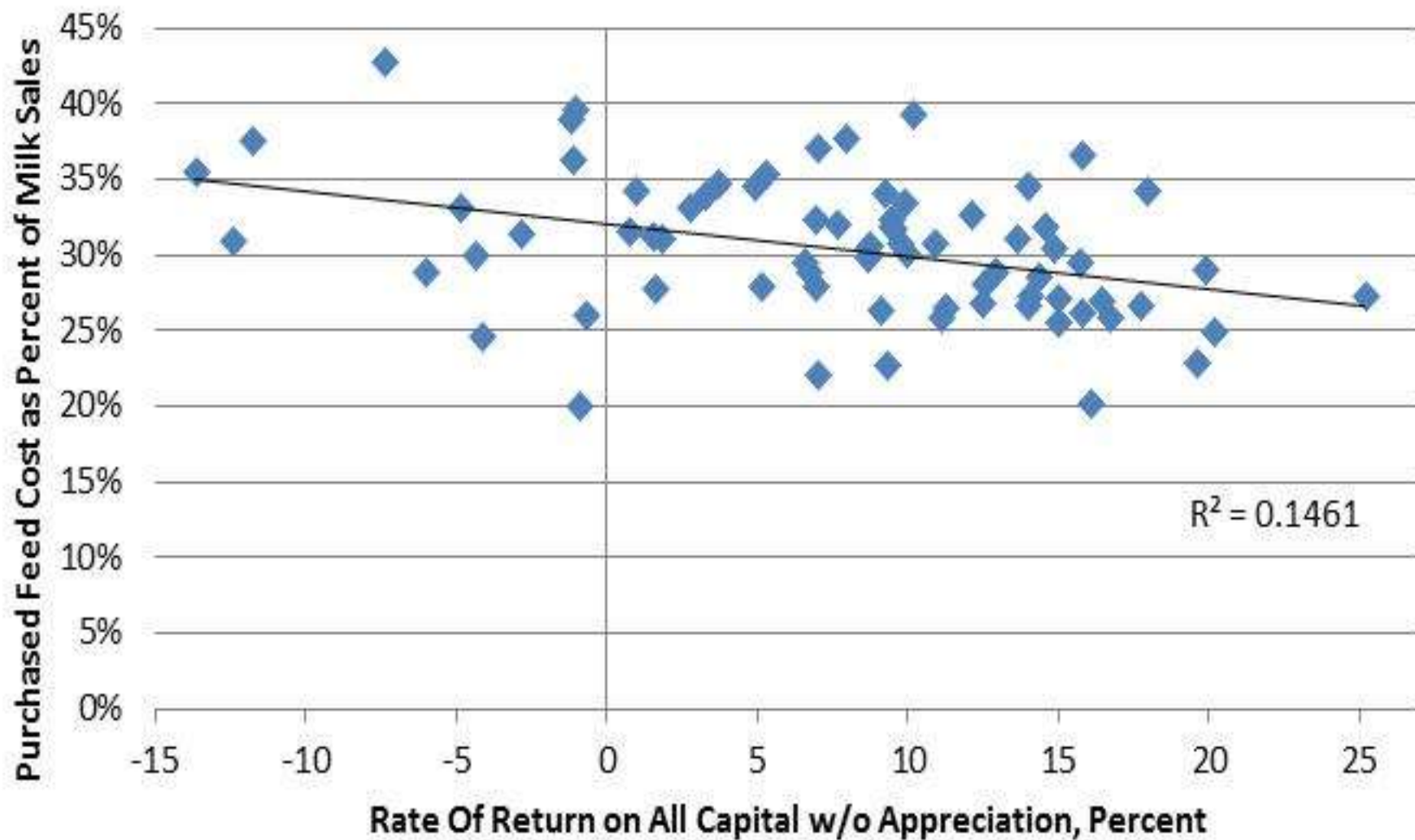


Purchased Feed Cost Control

- ⌘ Single largest expense on dairy farms in New York
- ⌘ What is the focus of the manager
 - ☑ Lowest cost per cow?
 - ☑ Lowest cost per cwt?
 - ☑ Lowest cost per pound of dry matter?
 - ☑ Less than 35% of gross milks sales?
 - ☑ Maximize income over feed costs

Purchased Grain Costs as Percent of Milk Sales VS ROA w/o Apprec.

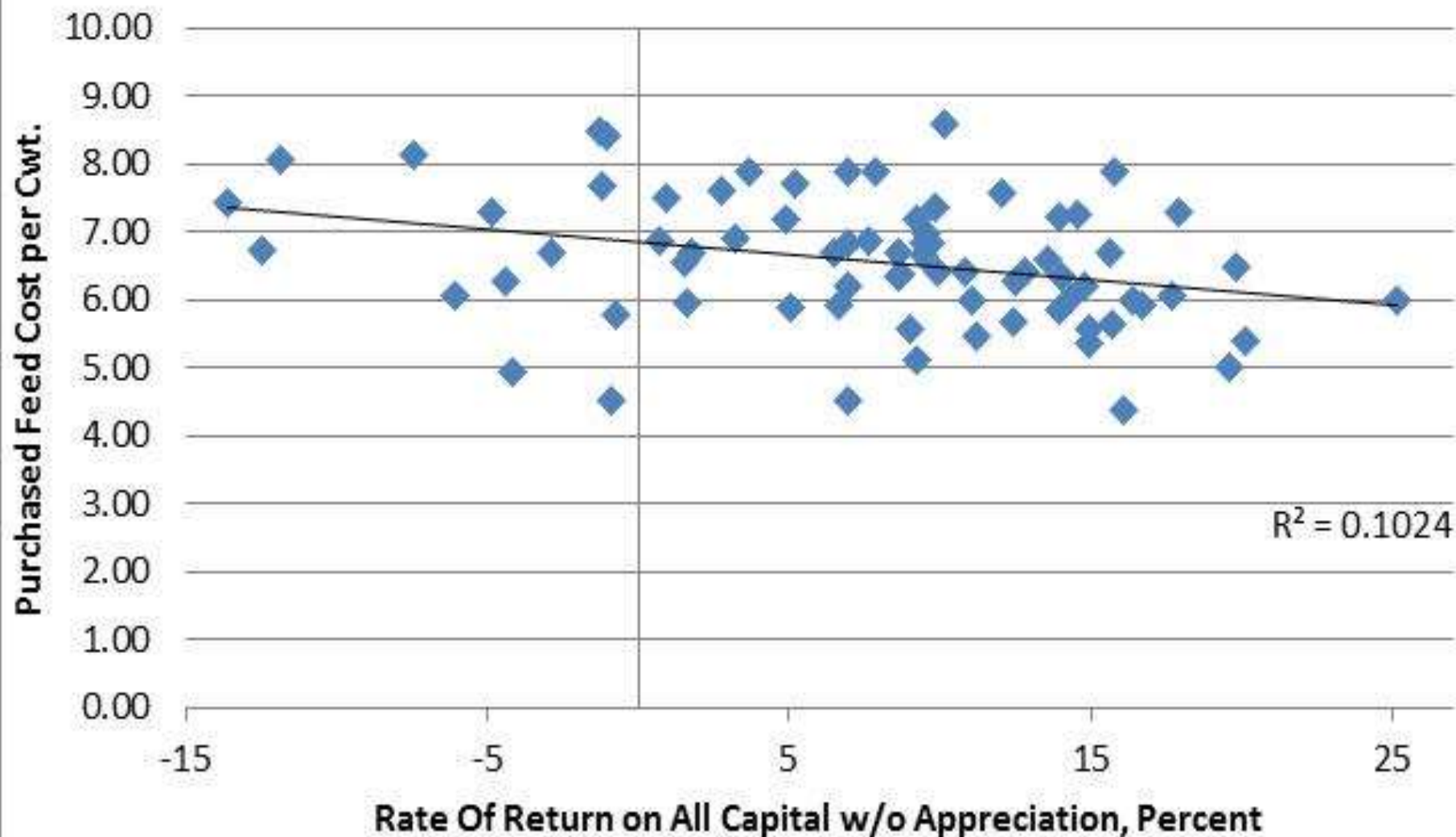
74 New York State DFBS, Raising No Grain, Not Grazing, 2011



Purchased Grain Costs per Cwt.

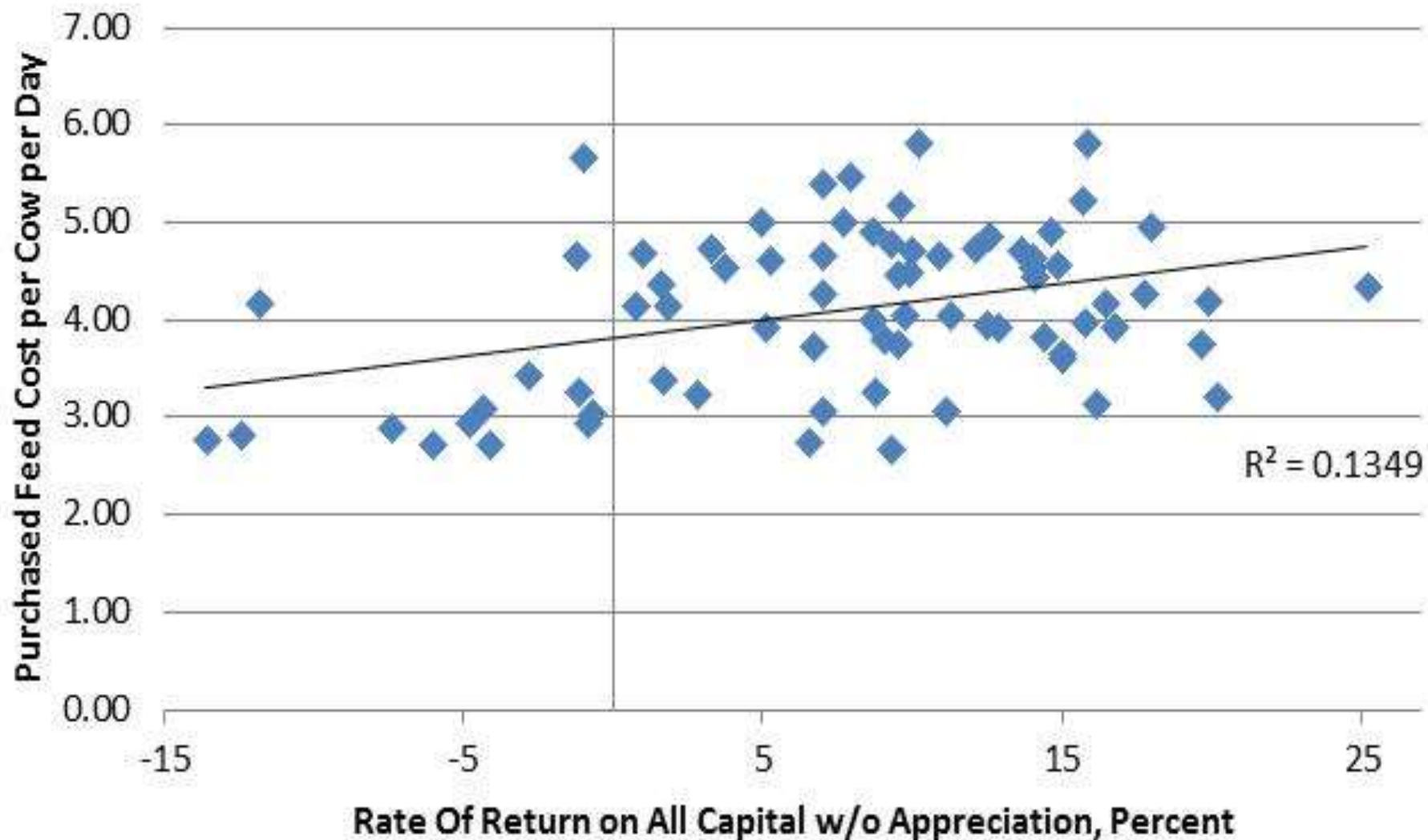
VS ROA w/o Apprec.

74 New York State DFBS, Raising No Grain, Not Grazing, 2011



Purchased Grain Costs per Cow per Day VS ROA w/o Apprec.

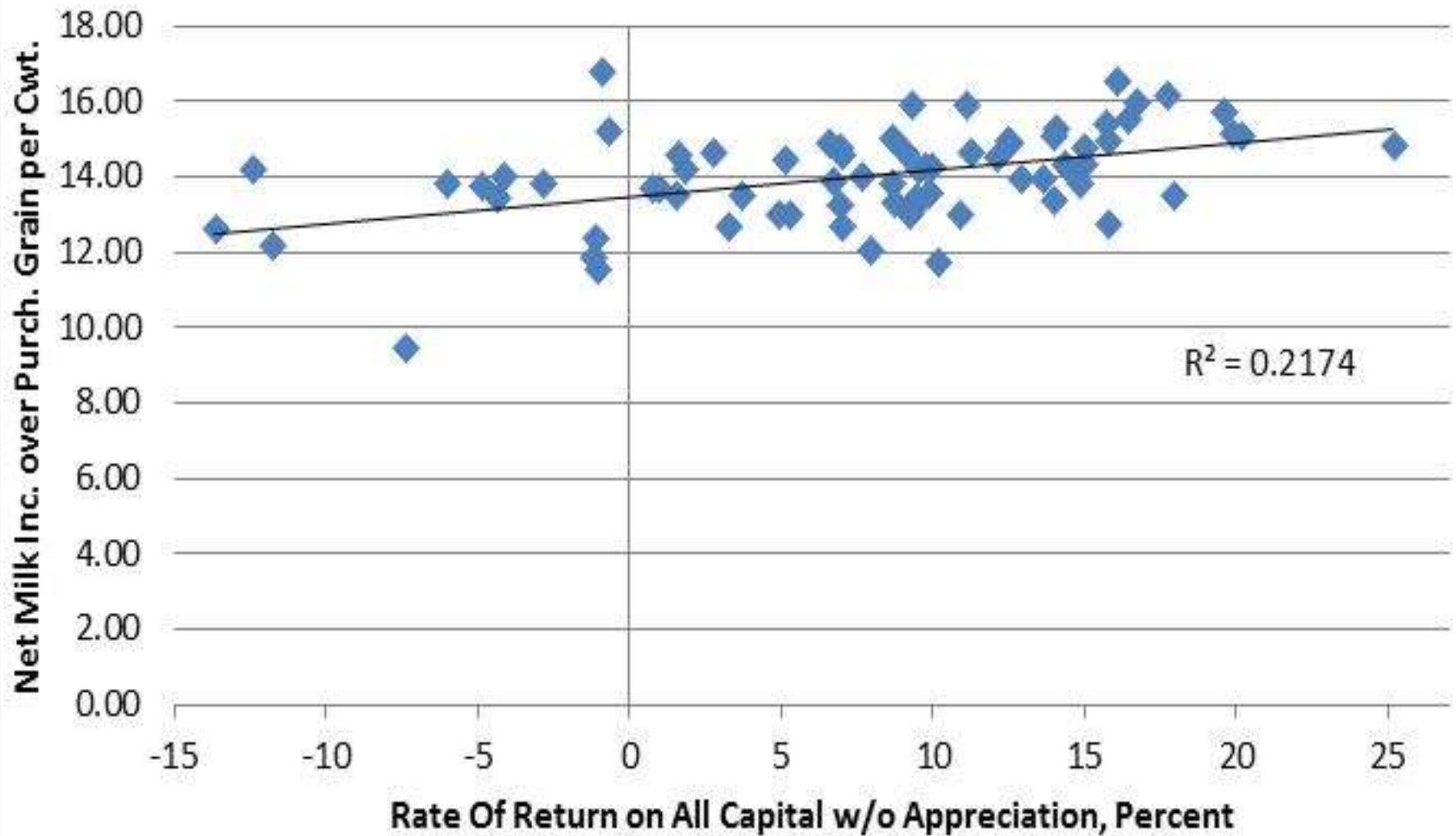
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Net Milk Income over Purchased Grain per Cwt.

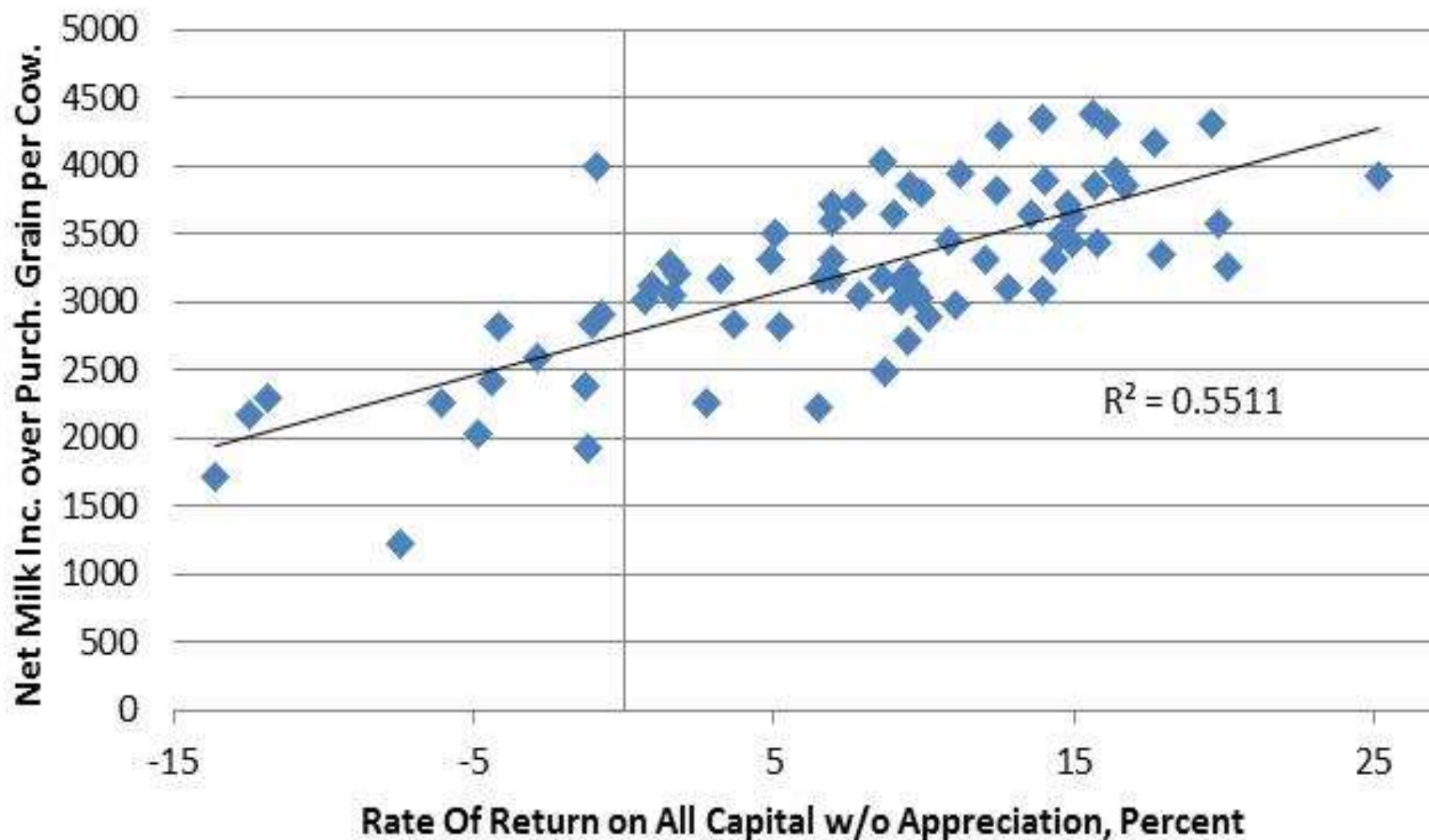
VS ROA w/o Apprec.

74 New York State DFBS, Raising No Grain, Not Grazing, 2011



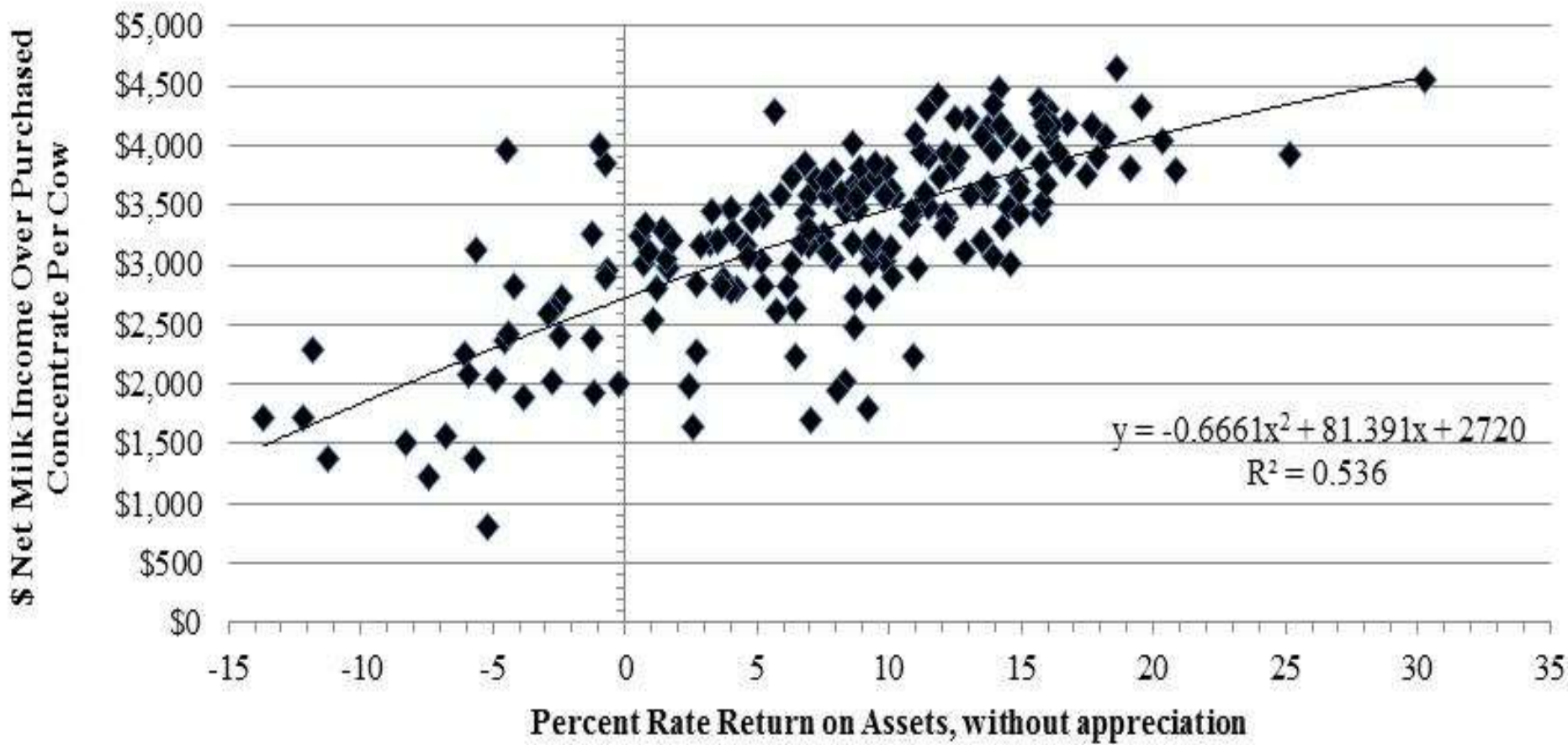
Net Milk Income over Purchased Grain per Cow, Annual vs ROA w/o Apprec.

74 New York State DFBS, Raising No Grain, Not Grazing, 2011





**NET MILK INCOME OVER PURCHASED CONCENTRATE PER COW BY
RETURN ON ASSETS
190 New York Dairy Farms, 2011**



Cost Control

- ⌘ Knowing costs important
- ⌘ Looking at performance and output associated with cost even more so!
- ⌘ What is the risk of focusing just on lowering costs?



People

⌘ Labor effectiveness

- ☑ How good a job are people doing?
- ☑ How are they impacting output?
- ☑ How are they impacting costs?

⌘ Impact on slippage

⌘ How to manage



People

⌘ Not just employee's

⌘ Service providers

☑ Part of the team

☑ Ask for input

☑ Evaluate advice



People

⌘ The Owners/Operators

- ☑ Interacting with others that are positive
- ☑ Surrounding themselves with others trying to accomplish similar things
- ☑ Setting the culture of the business
- ☑ Continuous professional development



Continuous Improvement

- ⌘ Never complacent
- ⌘ What to improve next
- ⌘ Set goals
- ⌘ Asking questions
 - ☑ What is new that we should be doing?
 - ☑ What is holding us back?
 - ☑ What are the next opportunities?



Decision Making

- ⌘ How are decisions made?
- ⌘ How fast is change made?
- ⌘ Type 1 error vs Type 2 error
- ⌘ What is done when a mistake was made?



Summary

⌘ Over time, high profit farms

☑ Know their numbers

☑ Value people

☑ Look at performance, not just cost

☑ Always improve