

---

# **Strategic Opportunities for Improving Profitability of Florida Dairy Businesses**

**Marvin J. Hoekema**

**Manager, Dairy Business Analysis Project**

**Department of Dairy and Poultry Sciences**

**University of Florida**

# Overview

---

- Key opportunity areas: Drucker
- Dairy Business Analysis Project 1997
- Opportunity areas for Florida dairy businesses.
- Strategies to find opportunities in your business.

# **Drucker: Key Opportunity Areas**

---

- Build on strength: priority areas
  - Big push areas
  - Abandonment
  - ‘Also rans’
- Understand vulnerabilities and restraints
- Make the future happen

**-Managing for Results 1985. Peter F. Drucker**

# **Build on Strength: Priority areas**

---

- Big push areas
  - Defined as those areas where efforts or investments contribute to their costs several times over.
  - Examples: tomorrow's breadwinners, sleepers, waste, high support costs.

# Abandonment

---

*“To call abandonment an “opportunity” may come as a surprise. Yet planned, purposeful abandonment of the old and of the unrewarding is a prerequisite to successful pursuit of the new and highly promising. Above all, abandonment is the key to innovation-both because it frees the necessary resources and because it stimulates the search for the new that will replace the old.”*

**-Peter F. Drucker**

## Abandonment-Cont.

---

- Abandonment is an *opportunity* that many business do not consider.
- Ask the question, “*Why are we doing this?*” If the answer is “*Because we have always done this.*” it is possible that the activity is a candidate for abandonment.

## **‘Also Rans’**

---

- These projects neither contribute much nor cost much.
- Should neither give the big push nor abandon.
- Rule: They cannot take resources away from the big push area nor should they require additional resources.

# **Restraints and Vulnerabilities**

---

- Business vulnerabilities and restraints are usually so well understood that changes seem ‘impossible’. These are usually the things where ‘nothing can be done’.
- Key to finding these: High break-even point.
  - “This project would work if only the milk price was higher”
- This area usually involves dramatic changes in the business structure.



# Make the Future Happen

---

- Two things known about the future
  - Unknown
  - Will be different from now and what is expected.
- Look for trends in the marketplace: the future that has already happened (e.g. feed markets).
- Create a future for the business with planning.

# **1997 Dairy Business Analysis Project**

---

Russ Giesy

Marvin Hoekema

Mary Sowerby

Pat Miller

David Solger

Bob Tervola

Travis Seawright

Patrick Joyce

Michael DeLorenzo

*Florida Dairy Check-Off*

# **Finding the Opportunities- Dairy Business Analysis Project**

---

- Collect complete financial data (balance sheet, income statement, cashflow, equity).
- Information is verified and analyzed for completeness.
- Each dairy receives a report comparing performance to other DBAP dairies
- Opportunity areas are identified which are specific to each business.
- Follow-up consulting is encouraged.
- All information is kept in strict confidence.

# Profile of Dairies-1997

---

- 46 Dairies.
- 1,502 cows per dairy.
- 883 heifers per dairy.
- 1,153 acres land.
- 17,014 lb. sold/cow
- 41% repl. rate/yr
- 53 cows/worker
- 885,200 lb. milk/worker
- Rev./cwt. \$18.31
- Exp./cwt. \$18.02
- NFI/cwt. \$0.29
- Assets/cow \$4,227
- Liab./cow \$1,487
- Prof Marg 2%
- Asset Turnover 0.84
- ROA 2%
- ROE 0%

# Revenues by Profit Groups

---

Category (per cwt.)	Upper 25%	All Dairies	Lower 25%
Number of dairies	7	27	7
Milk sales	17.17	16.87	16.59
Cow sales	1.01	0.79	0.95
Calf sales	-0.02	0.11	0.09
Other livestock	0.18	0.08	0.14
Crops	0.90	0.17	-0.05
Gov't receipts	0.04	0.03	0.00
Custom work	0.16	0.04	0.00
Other revenues	0.33	0.21	0.33
Total revenues	19.77	18.31	18.06

---

# Expenses by Profit Groups

---

Category (per cwt.)	Upper 25%	All Dairies	Lower 25%
Number of dairies	7	27	7
Personnel	2.34	2.45	3.05
Purchased feed	8.40	8.37	9.01
Crops	0.55	0.33	0.42
Machinery	0.83	0.85	1.09
Livestock	2.13	2.44	2.72
Marketing	0.96	1.06	1.05
Real estate	0.56	0.50	0.37
Other	1.24	1.39	1.84
Depreciation	0.63	0.63	0.78
Total expenses	17.63	18.02	20.32
Net farm income	2.15	0.29	-2.26

---

# Definitions

---

$$\text{Asset turnover} = \frac{\text{Total revenues}}{\text{Average total assets}}$$

$$\text{Operating profit margin} = \frac{\text{Net farm income} + \text{Interest} - 50,000}{\text{Total revenues}}$$

$$\text{Return on assets} = \frac{\text{Net farm income} + \text{Interest} - 50,000}{\text{Average total assets}}$$

$$\text{Return on equity} = \frac{\text{Net farm income}}{\text{Average total equity}}$$

# Accrual Adjusted Accounting

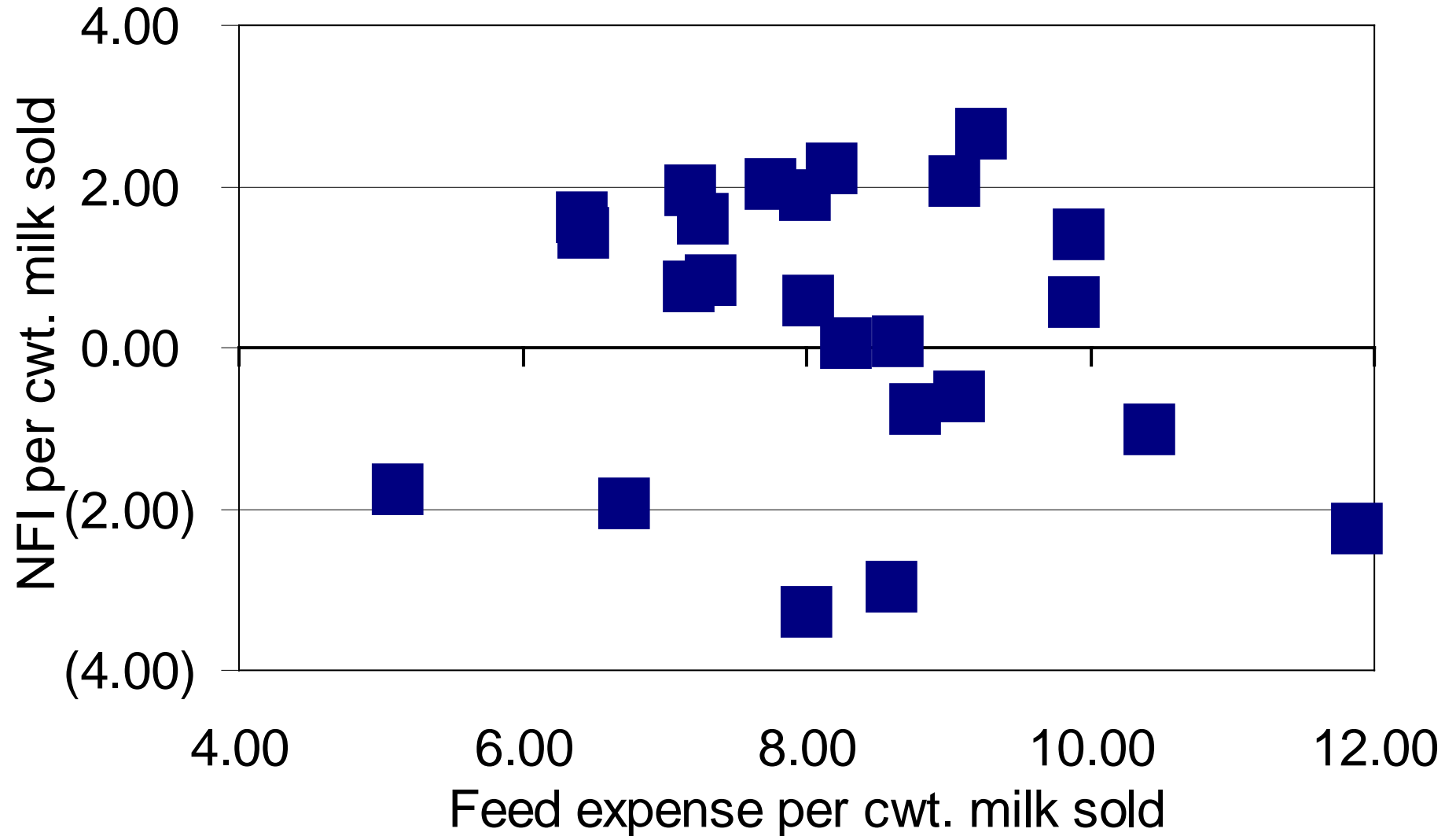
---

- Cash accounting only accounts for transactions that affect cash. Non-cash items such as depreciation, inventory changes, or changes in liabilities do not affect cash.
- Accrual adjusted accounting recognizes transactions when they occur.
- Example:
  - Dairy had \$1,000,000 in cash feed expenses for 1997.
  - Jan. 1, 1997 feed inventory was zero. Dec. 31, 1997 feed inventory was \$250,000.
  - Accrual adjusted feed expense was \$750,000 because \$250,000 in feed was still in inventory at end of the year.



# Net Farm Income per cwt. versus Purchased Feed Expense per cwt.

---



# **Where are the Opportunities?**

---

5 areas of any business which affect profitability:

- Expenses: cost control
- Revenues: farm productivity
- Assets: efficiency
- Liabilities: structure
- Cashflow

# **Expenses: Cost Control**

---

Examine cost control groups to find out what cost control means on Florida dairies.

- Critical: Dairies with 2 or more expense categories in *problem* area.
- Problem: Dairies with 1 expense category in *problem* area.
- Moderate: Dairies with no expense categories above or below *normal* levels.
- Good: Dairies with 1 or more expense categories below *normal* levels.

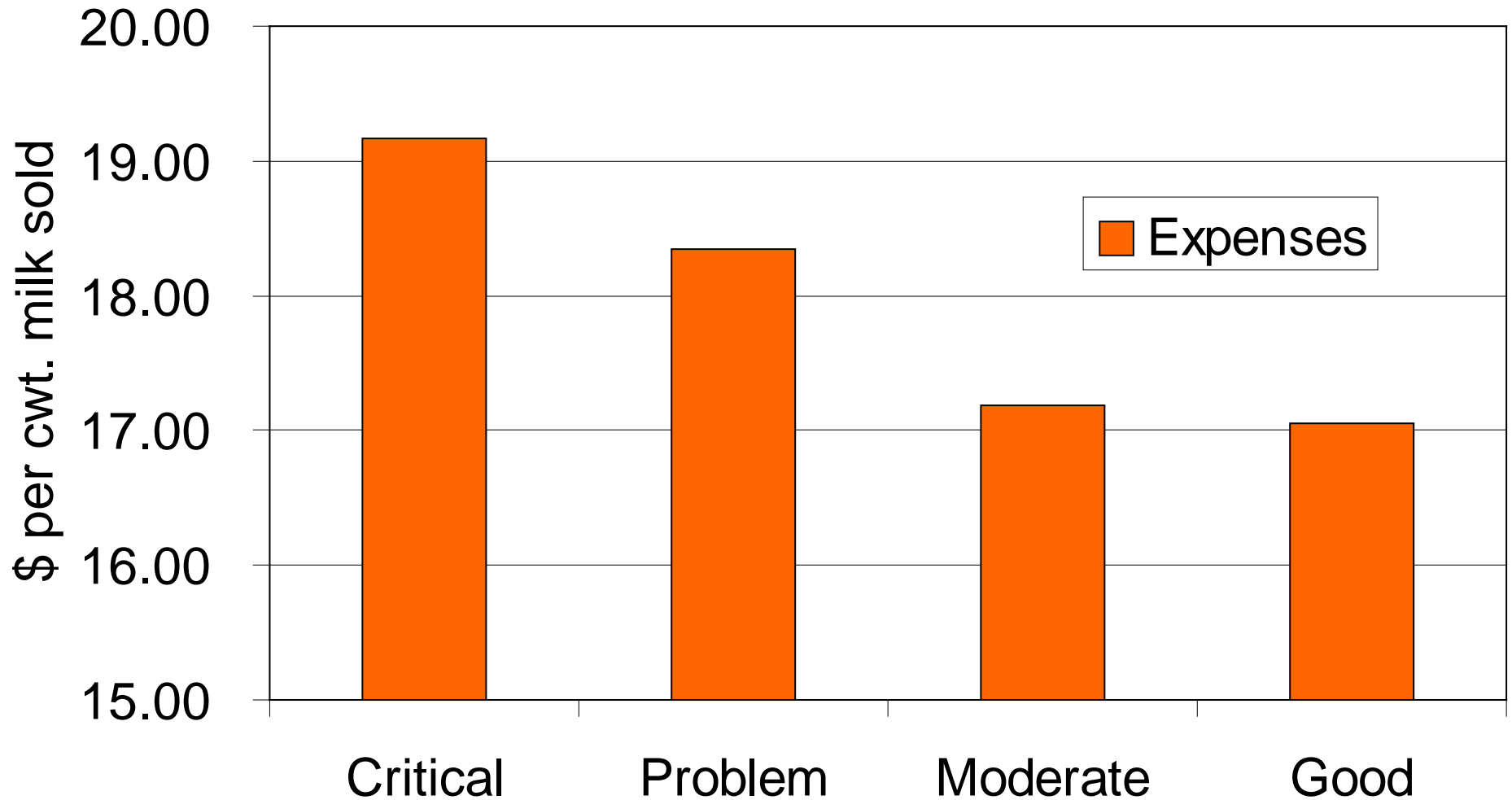
# **Cost Control Group-Observations**

---

- Differences between *critical* and *problem* groups were in both expense and revenue structures.
- *Moderate* group had smaller margin than *minus* group.
- *Good* group had more revenue which drove net farm income per cwt. higher.

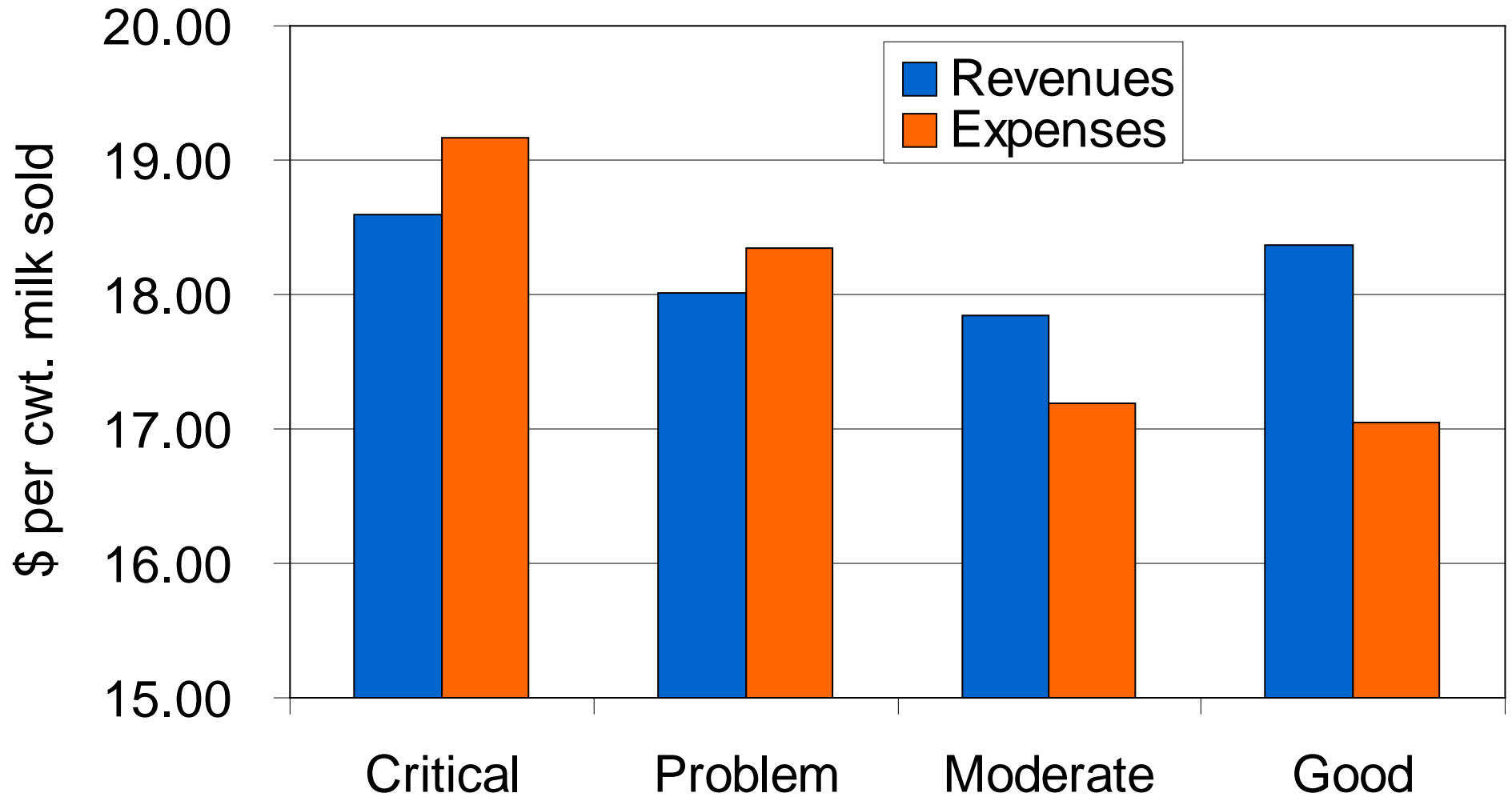
# Cost Control Group-Expenses

---

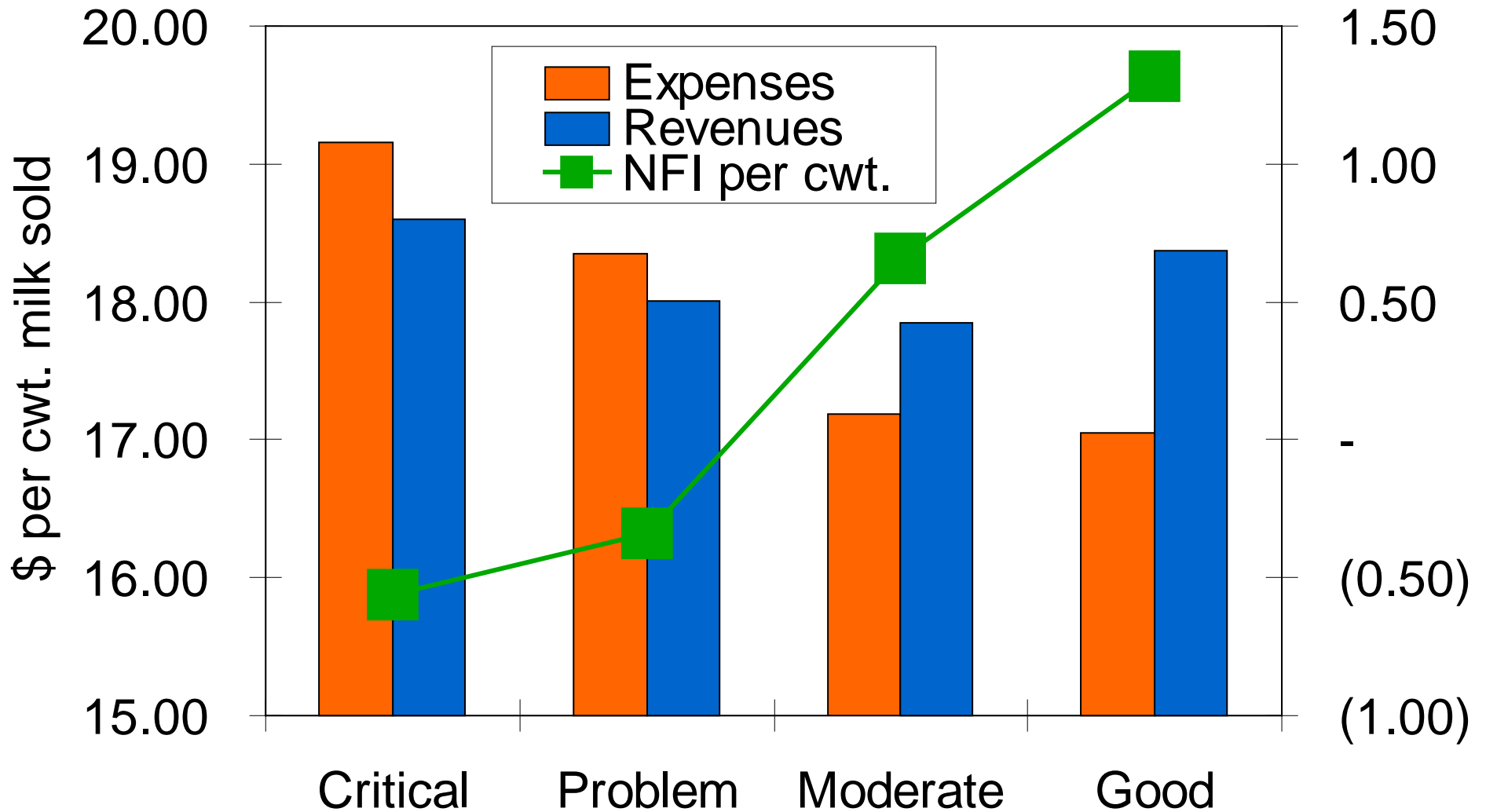


# Cost Control Group- Revenues and Expenses

---



# Cost Control Group-Revenues, Expenses, and Net Farm Income



# Cost Control Groups- Take Home Messages

---

- *Critical* and *problem* groups had both high revenues and high expenses. High expenses drove negative NFI. Problem areas substantially hurt profitability.
- *Moderate* groups had nearly as low expense per cwt. as minus group.
- *Good* groups had best cost control per cwt. This group also had other activities to boost revenues.



# **Big Take Home Message-Cost Control**

- To fully understand the business, you need to look beyond expenses and also look at revenues.

# Revenues

---

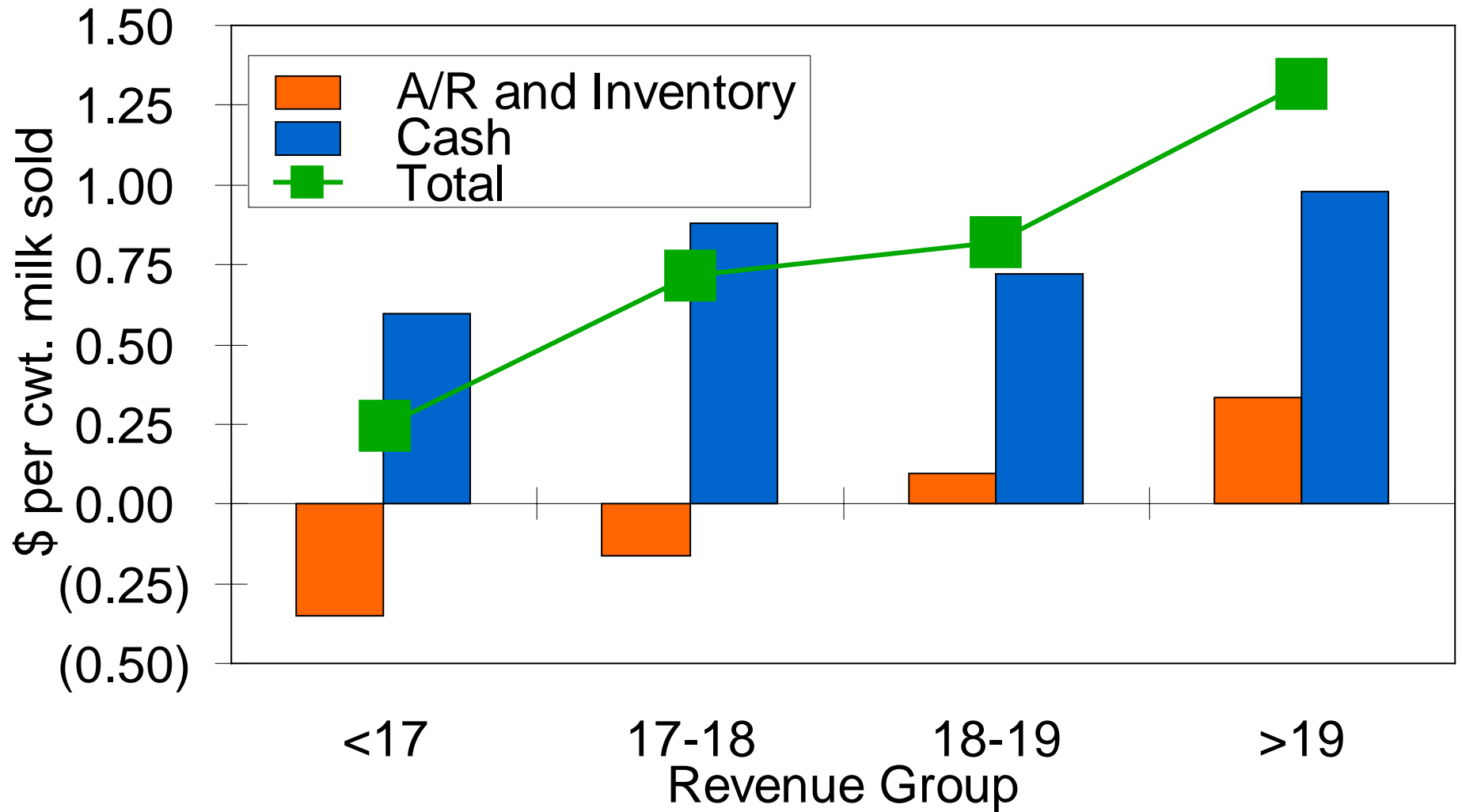
- Mostly driven by milk price but are also affected by other business activities.
- In the accrual adjusted accounting system, all revenues and expenses are linked to the balance sheet.
- Because of this link, the system allows the income statement (which measures net farm income) to be sensitive to performance throughout the entire farm, not just what shows up in the checkbook.

# Revenue Groups

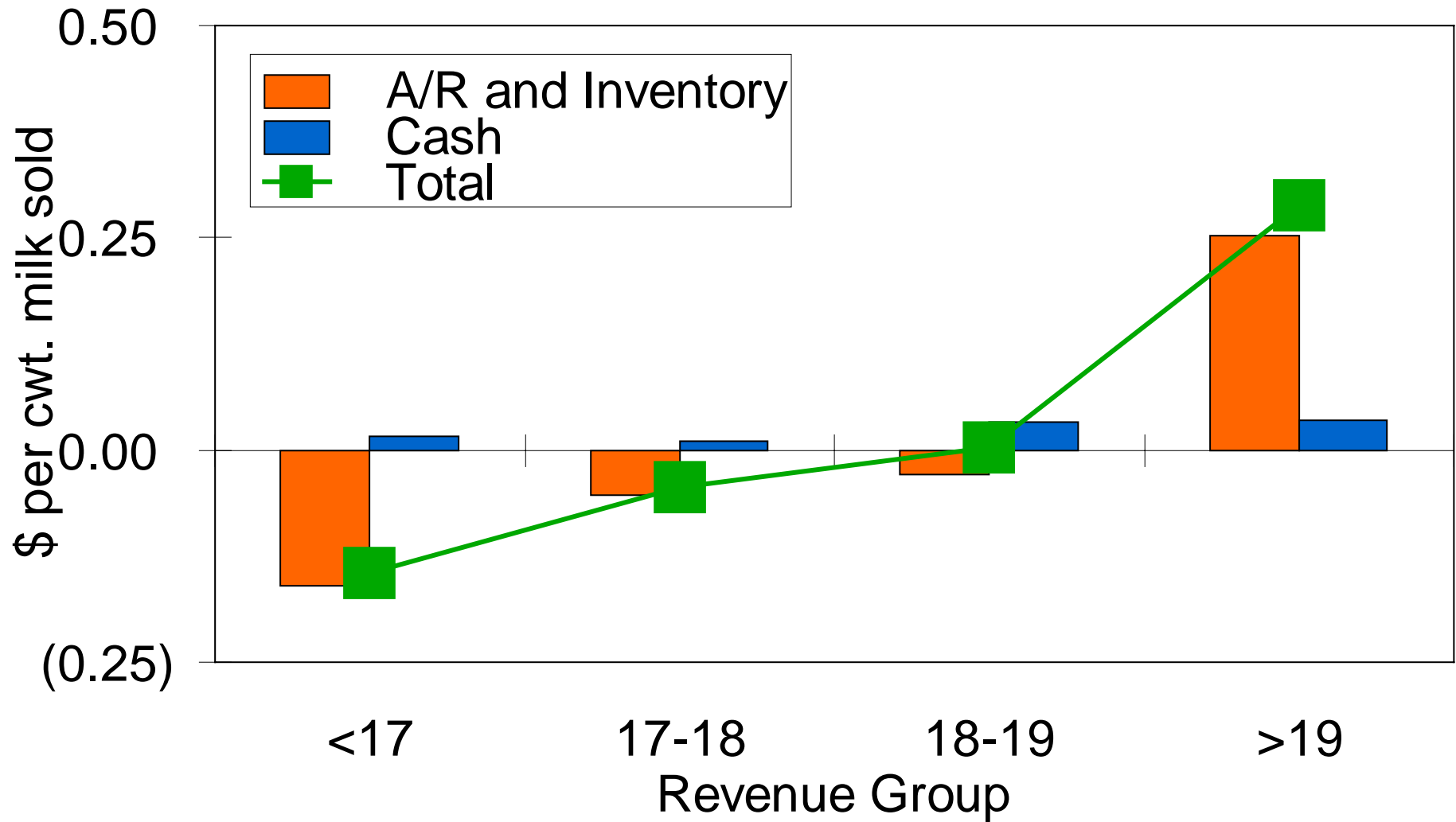
---

- Sorted into 4 groups based on total revenues per cwt. milk sold.
- Looked at revenue composition and differences between cash sales and inventory adjustments.
- Most active revenue categories: cows and crops.

# Revenue Groups-Cows

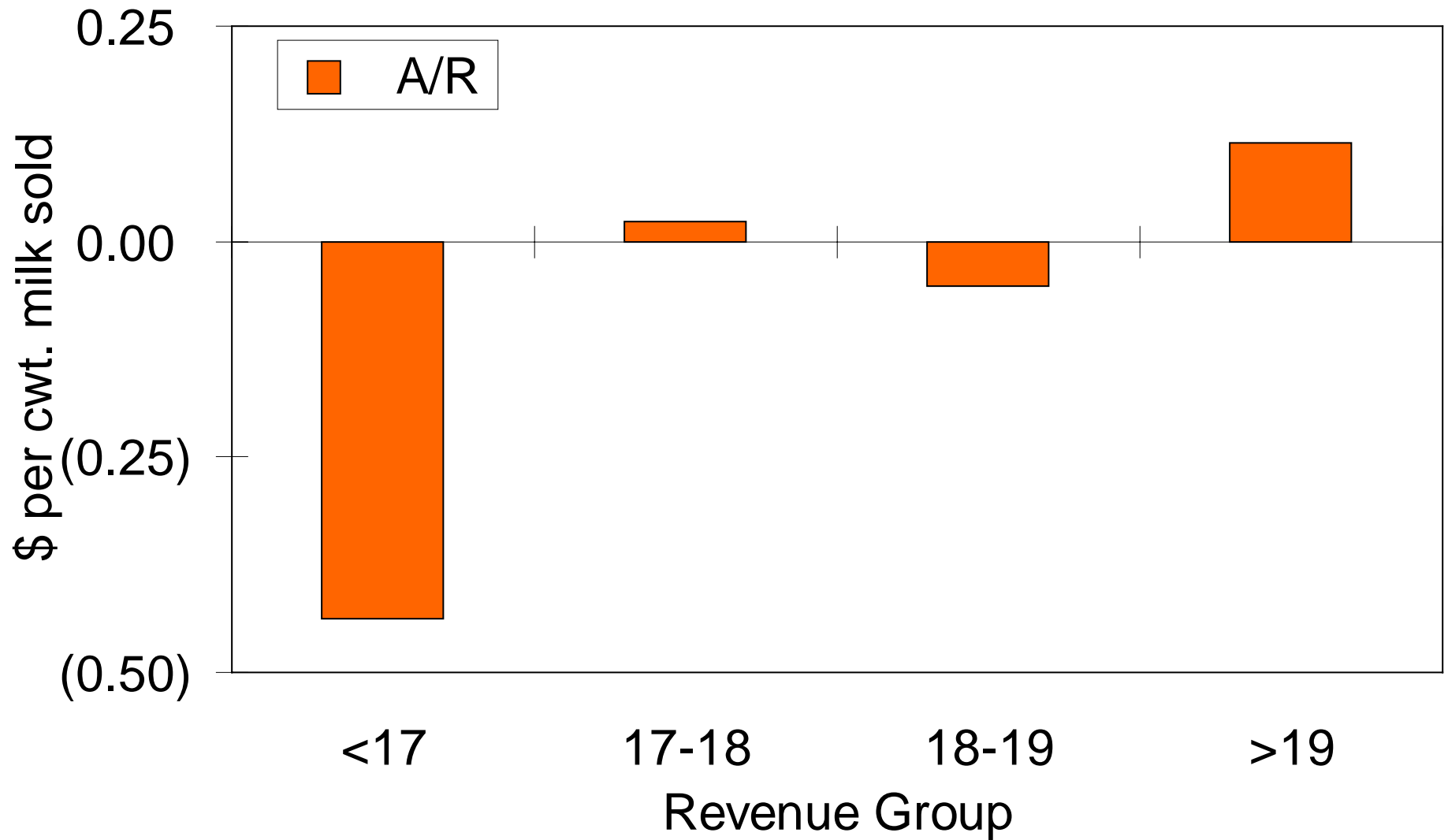


# Revenue Groups-Crops



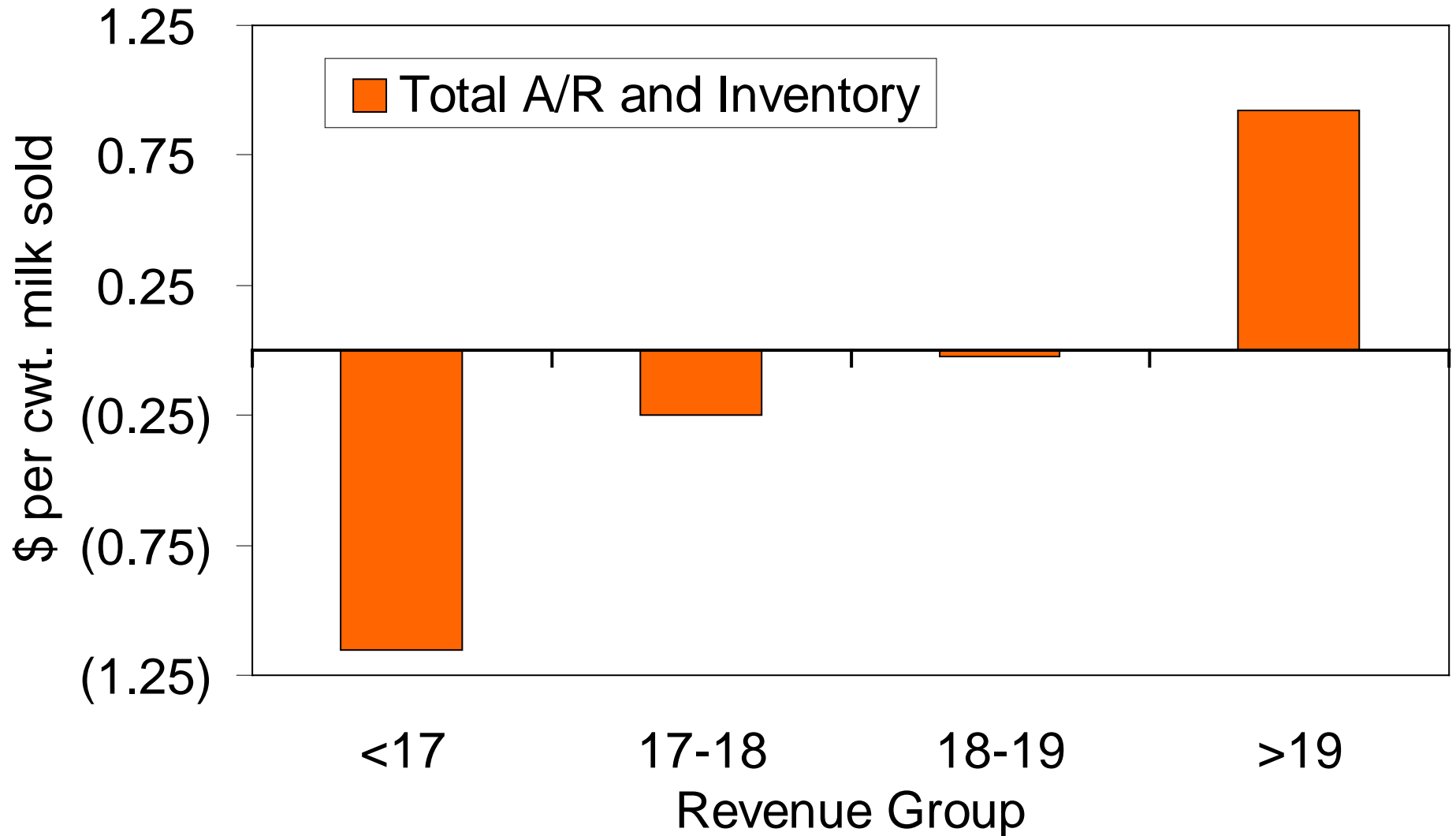
# Revenue Groups-Milk

---

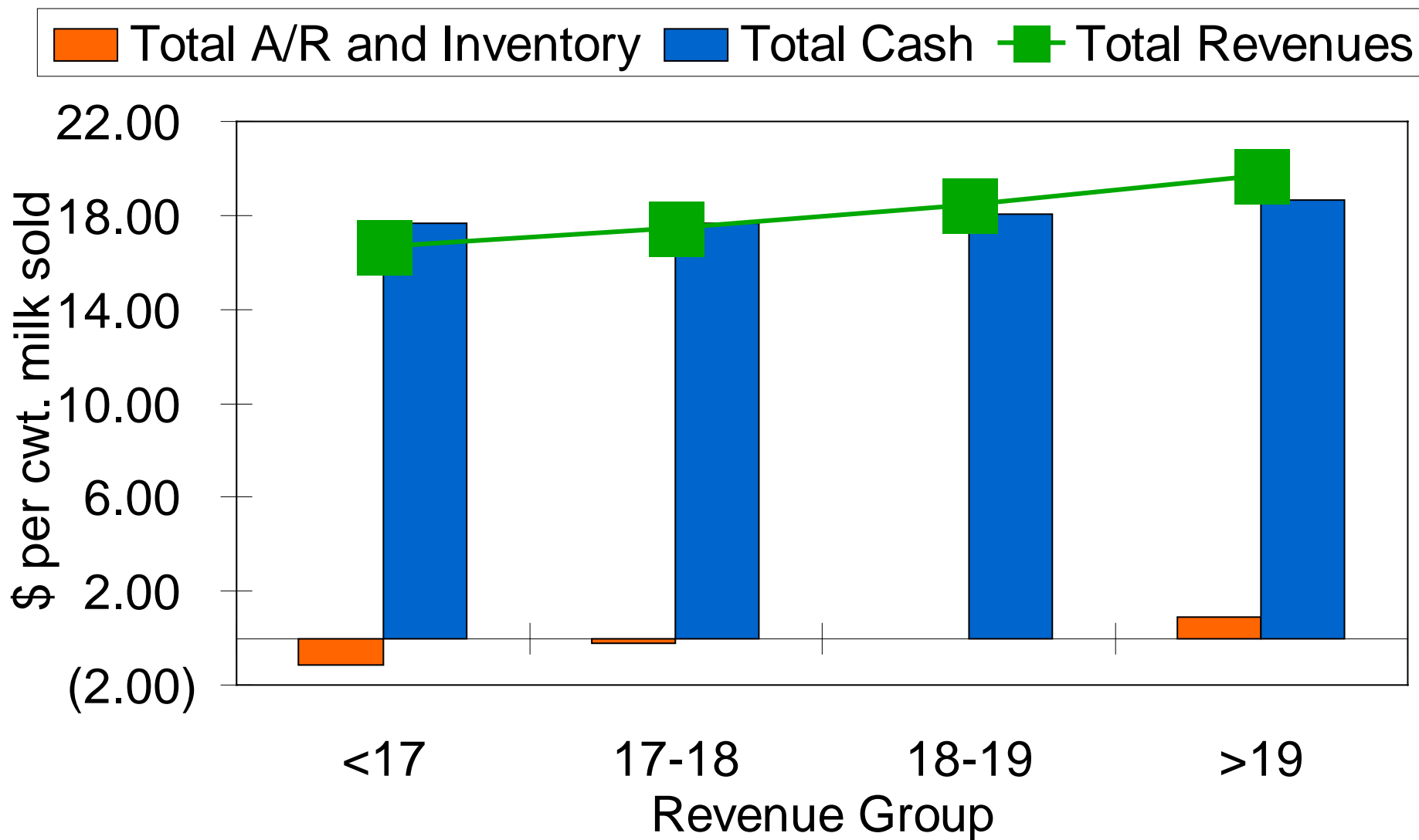


# Revenue Groups-Total Adjustments

---



# Revenue Groups-Total Revenues





# **Revenue Groups-Observations**

---

- The lowest two revenue groups had negative adjustments for these revenue categories (cows, heifers and calves, other livestock, crops).
- There was a difference of \$2.07 per cwt. milk sold between the adjustments for the top and bottom revenue groups.

# **Revenue Groups-Take Home Messages**

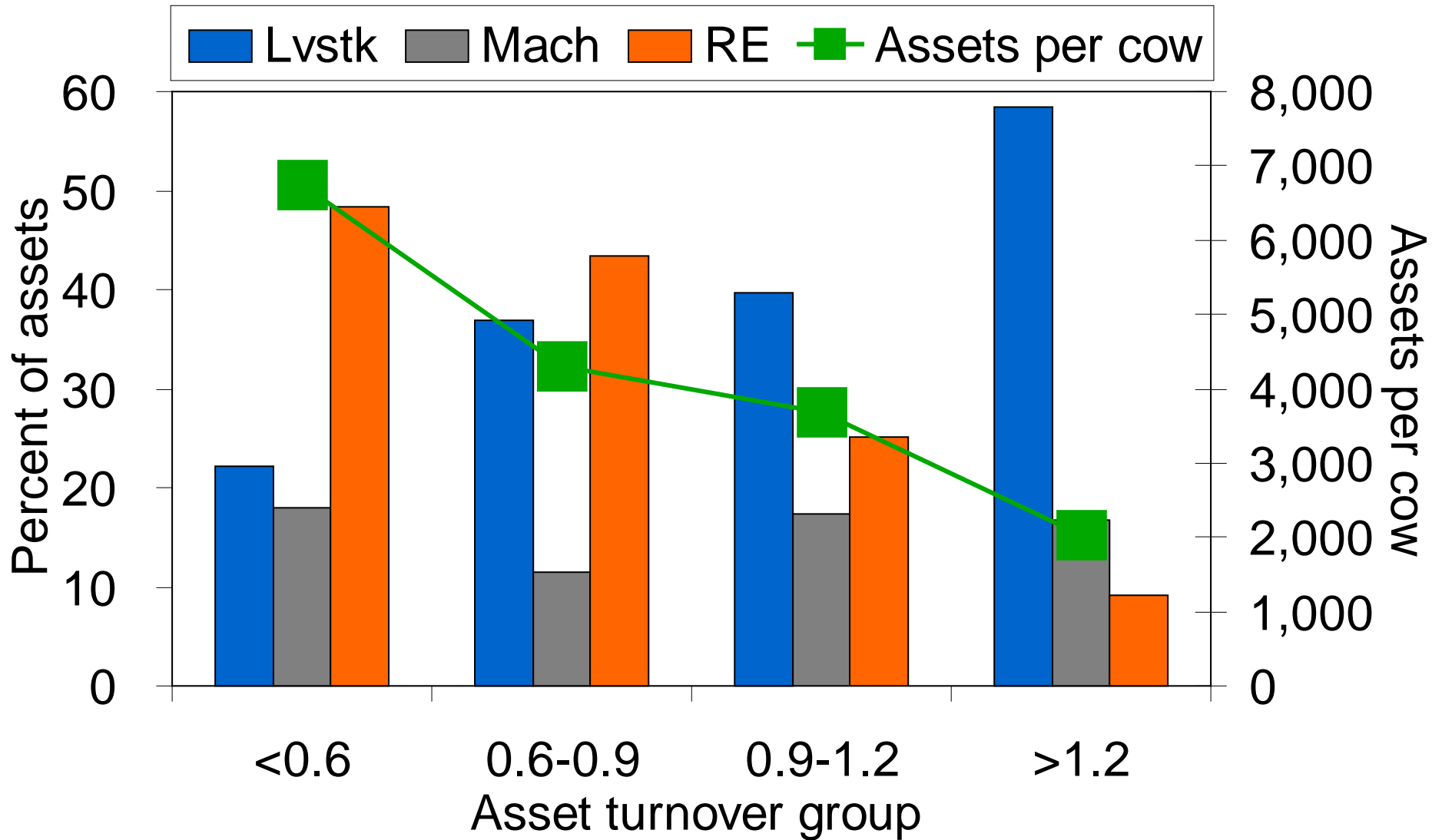
- Revenues are more than just cash.
- High revenue dairies have higher NFI.
- Other enterprises can either enhance or constrain NFI.
- Need to know entire financial picture to find out whether farm activities contribute to NFI.

# Assets: The Engine that Powers the Business

---

- The question: Is your business running on all 8 cylinders or just 4 or 5?
- A measure of the miles per gallon your business is getting is the *asset turnover ratio*.
- Example:
  - \$50,000 tractor, \$0 revenue, asset turnover of 0.
  - \$50,000 cows, \$131,000 revenue, asset turnover of 2.62.
- Important because rate of return on assets is a *product* of profit margin and asset turnover.

# Asset Turnover Groups- Asset Composition



# **Asset Turnover Groups-Observations**

Asset composition tells the story.

- Low group ( $<0.6$ ) had high real estate values which drove high assets per cow.
- High group ( $>1.2$ ) had high livestock and low assets per cow.
- Middle 2 groups (0.6-0.9 and 0.9-1.2) had a pivotal switch between real estate and livestock with comparable assets per cow.

# Asset Turnover Groups- Take Home Messages

---

- The high asset turnover group ( $>1.2$ ) did not have the highest profitability (unclear whether this was related to investment or not).
- The key is to have a majority of assets in livestock. They generate the revenues on most dairies.
- Make investment decisions with the asset turnover ratio in mind.

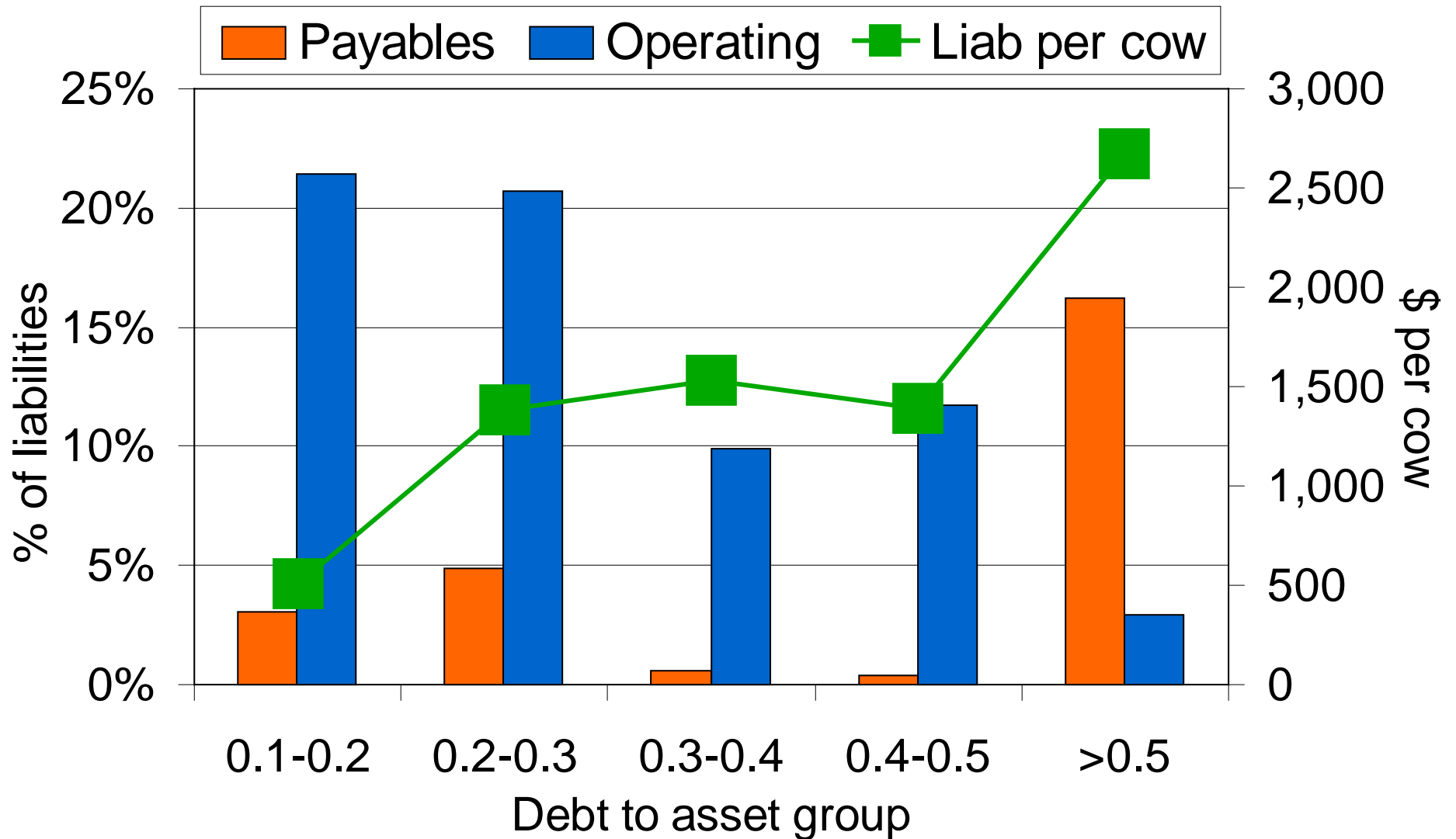
# Liabilities

---

These can make or break a business

- Double whammy to dairy business function:
  - Interest expenses: challenge operating efficiency
  - Debt service (i.e. payments): constrains cashflow and can increase interest expense through inadvertent financing.
- Separated dairies into 5 groups by the *debt to asset ratio*.

# Liability Groups-Composition





# **Liability Groups-Observations**

---

- The 0.4-0.5 debt to asset group had the highest NFI/cwt.
- Inadvertent financing for the high debt to asset group ( $>0.5$ ) was a sign of constrained cashflow and profitability.
- As a portion of total liabilities, all groups used operating notes to varying degrees.

# **Liability Groups-Take Home Messages**

- Be cautious when financing with payables, they are much more difficult to manage.
- If interest expense is more than NFI, it is possible that liabilities are not being used effectively.
- Use both the debt to asset ratio and liabilities per cow to understand debt load.

# **Opportunity Areas**

---

- Expenses: measure the cost control ability in all areas of your business.
- Revenues: understanding the whole farm, not just cash, is critical.
- Assets: aim for a majority of assets in livestock.
- Liabilities: avoid financing with payables.

# Strategy: How to Find Opportunities in Your Business

---

- DuPont Analysis: Breaks down profitability into driving components.
- Benchmark: How does your business measure up to others which are similar?
- Growth: Which components of the business enable or constrain profitability?

Good news: DBAP does all of this for you.