Real Herds…Real Heifers

The Cost of Raising Dairy Replacements

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Contributions by:
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Intuitive Cost of Production Analysis (ICPA)

- An analysis system that calculates producer-specific costs and labor efficiencies associated with raising dairy replacements
- Evaluates cost and labor efficiencies
- Provides economic and labor efficiency benchmarks for dairy herd replacements

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2013 ICPA Project

- 36 Wisconsin operations
  - Tie-stall operations
  - Free-stall operations
  - Custom calf and/or heifer grower operations
- 12 different counties
- Two enterprises
  - Calf
  - Heifer

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Calf Enterprise

- Calf - An animal raised from birth until she is moved to group housing
- 30 operations evaluated
  - 12 tie-stall operations
  - 13 free-stall operations
  - 5 custom calf growers
- Feeding, management, housing and labor data was collected

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Key Assumptions

Item	Assumption
Calf value	$150 per calf
Labor (paid and unpaid)	$13 per hour
Management (paid and unpaid)	$22 per hour
Interest rate	4.5 percent
Pasteurized Waste Milk	$5 per cwt
<u>Replacement value of calf housing</u>	
Homemade calf hutch	$200
Purchased calf hutch	$400
Greenhouse barn	$10 per square foot
Post-Frame calf barn	$15.50 per square foot

2013, D. Kammel, UW-Madison Biological Systems Engineering

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Calf Cost Centers
(also applicable for Heifers)

- Feed Costs
- Labor and Management
- Other Variable Costs
  - Bedding
  - Veterinary
  - Death loss
  - Interest
- Fixed Costs
  - Buildings
  - Equipment

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Cost of Raising a Calf in Wisconsin*

	1999	2007	2013
Total Cost	$160.26	$326.07	$363.69
Daily Cost	$2.68	$5.31	$5.34
Days on Feed	59.7	61.36	68.6
Weaning Age (weeks)	7.4	7.04	7.61

*Does not include $150 calf value

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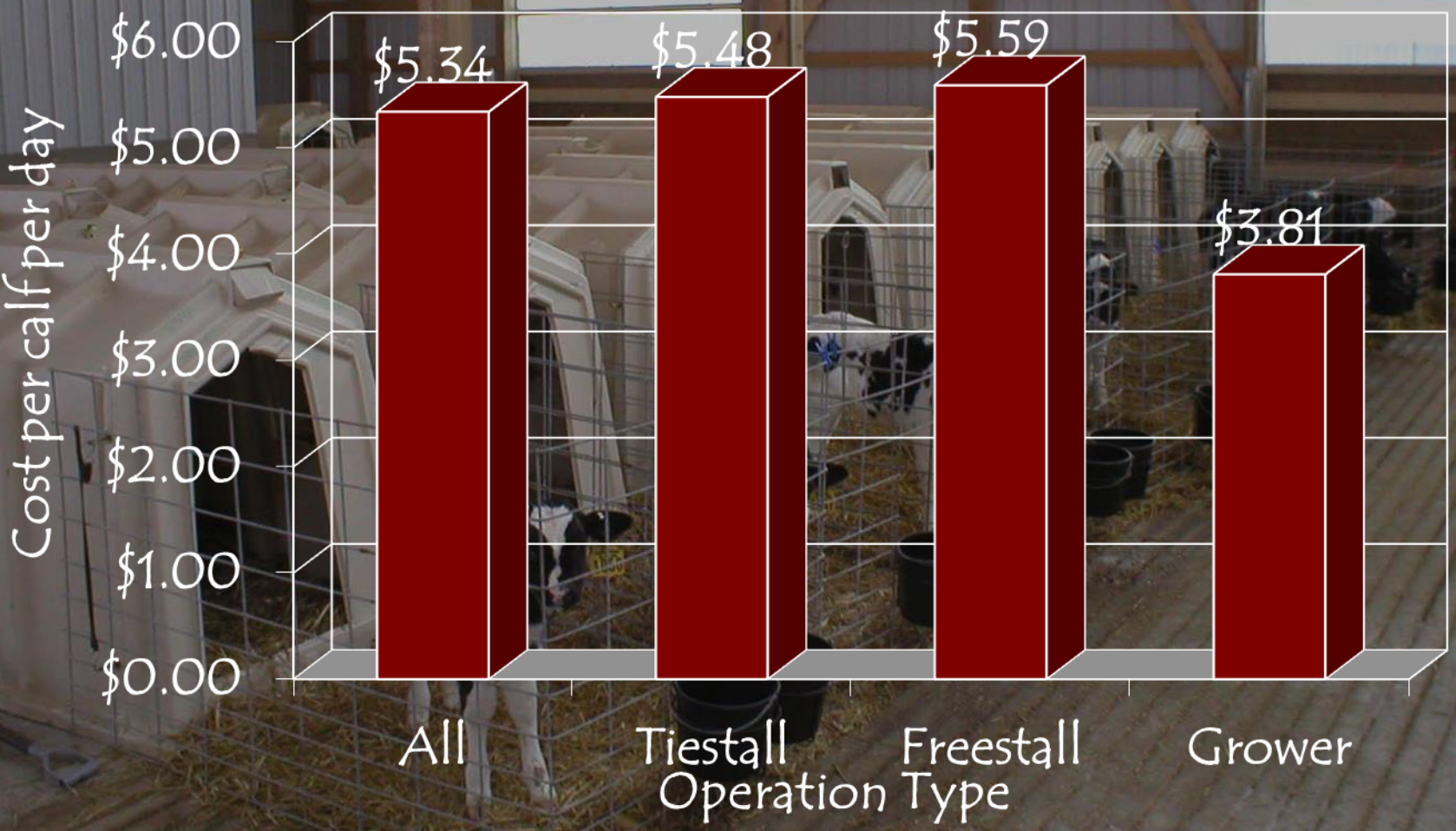
Daily Calf Raising Costs*



*Does not include $150 calf value

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Cost Per Day To Raise A Calf

	Calf Cost per Day*			
	Tie-Stall	Free-Stall	Grower	All
Feed Costs	$2.44	$2.36	$2.00	$2.37
Labor & Management	$0.74	$1.12	$0.95	$0.99
Other Variable Costs	$2.09	$1.61	$0.65	$1.63
Fixed Costs	$0.21	$0.50	$0.21	$0.35
Total Cost	$5.48	$5.59	$3.81	$5.34

*Does not include $150 calf value

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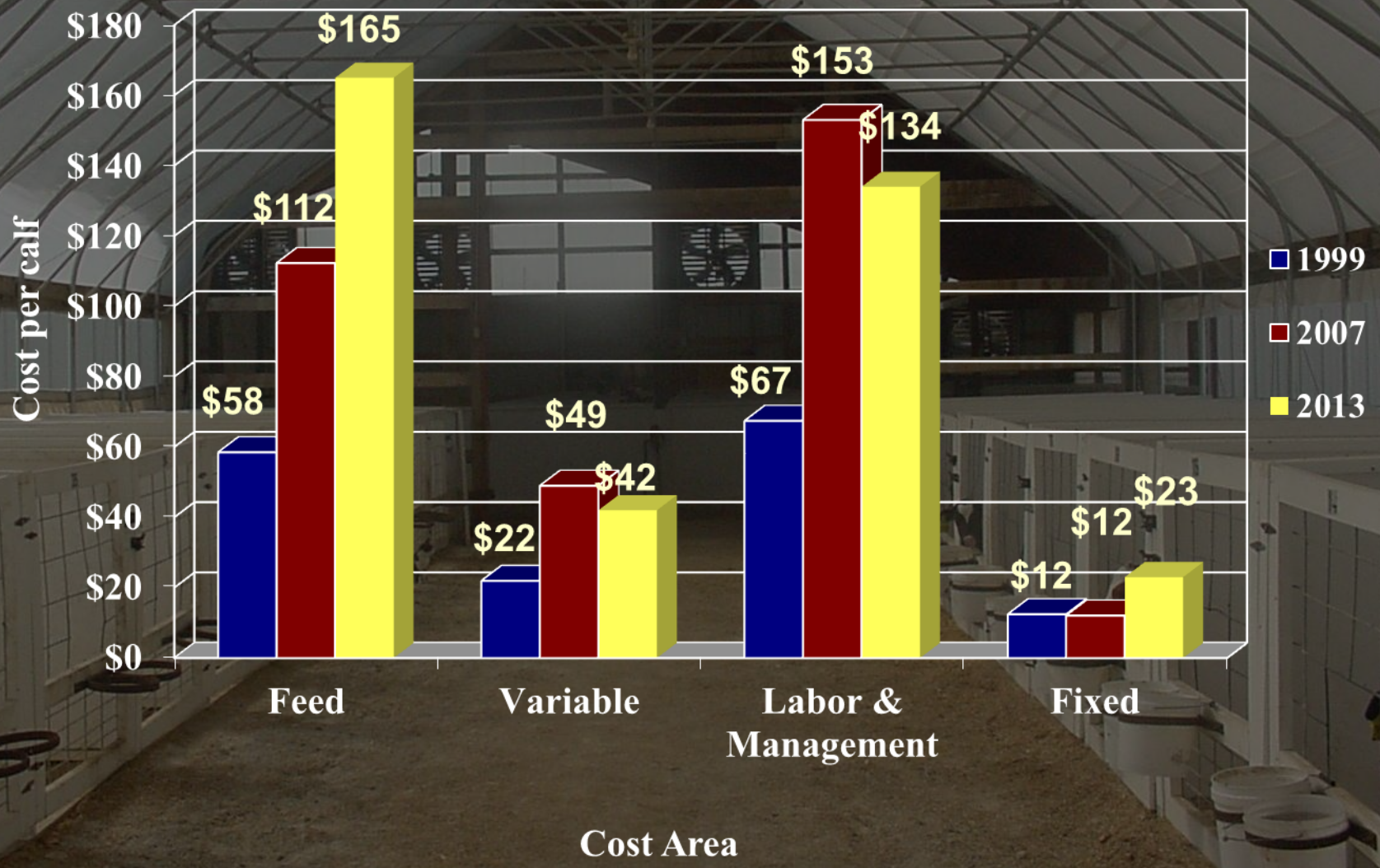
Comparison of Calf Raising Costs

1999 vs 2007 vs 2013



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Take Home Message(s)

- The opportunity cost in the UW-Extension ICPA studies conducted in 1999, 2007, and 2013 varied from $100 (1999), $150 (2013) to $500 (2007) per calf.
- Almost all custom calf raisers used pasteurized milk instead of milk replacer. As a result, across all herds the cost of liquid feed fed to dairy calves only increased 9.3% between 2007 and 2013.

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Take Home Message(s)

- Calf starter prices tripled between 2007 and 2013.
- Due to increases in labor and management efficiency, labor and management costs to raise dairy calves decreased.

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Heifer Enterprise

- Heifer - An animal raised in group housing to time of freshening, or in the case of the custom heifer grower, the time the heifer is returned to the producer
- Feeding, management, housing and labor data was collected

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Key Assumptions…

Item	Defined Inputs
Feed Costs:	
Legume Silage	$200 per ton DM
Corn Silage	$140 per ton DM
Corn	$250 per ton DM
Weigh-backs	$150 per ton DM
Soybean Meal	$375 per ton DM
Labor	$13.00 per hour
Management	$22.00 per hour
Interest rate	4.5%

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Replacement Value of Heifer Facilities

Item	Replacement Value
Bedded Pack Barn	$18.50 per square foot
Freestall Barn	$20 per square foot
Mound System or Dirt Lot	$0.10 per square foot
Concrete Lot	$3 per square foot

2013, D. Kammel, UW-Madison Biological Systems Engineering

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About the operations…

- 32 operations evaluated
  - 12 tie-stall operations
  - 13 free-stall operations
  - 7 custom heifer growers
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Cost of Raising a Heifer in Wisconsin*

	1999	2007	2013
Total Cost	$1099.12	$1322.70	$1863.19
Daily Cost	$1.61	$2.04	$3.04
Days on Feed	683	648	611

***Does not include $150 calf value**

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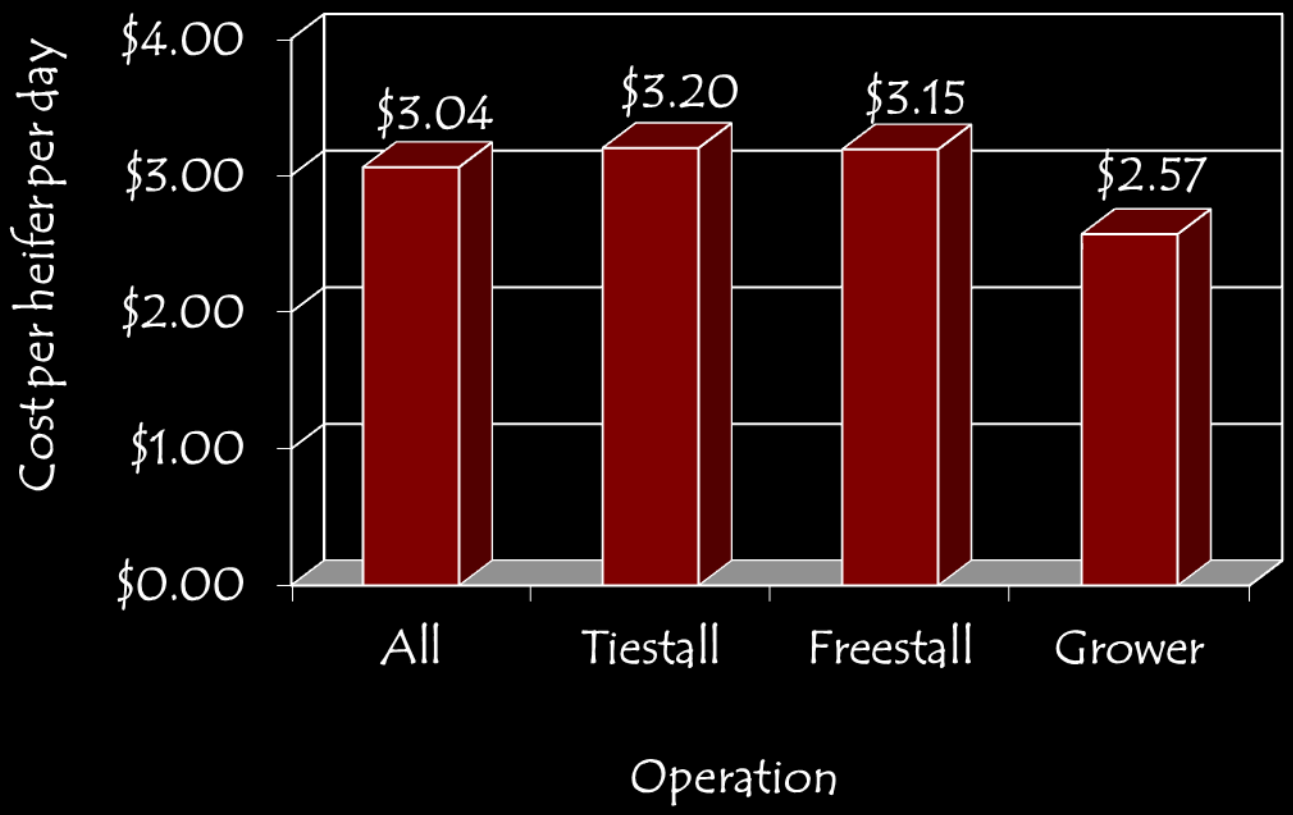
Daily Heifer Raising Costs*



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Cost Per Day To Raise A Heifer

	Heifer Cost per Day*			
	Tiestall	Freestall	Grower	All
Feed Costs	$1.66	$1.83	$1.55	$1.71
Labor & Management	$0.66	$0.51	$0.39	$0.54
Other Variable Costs	$0.46	$0.49	$0.35	$0.44
Fixed Costs	$0.42	$0.33	$0.29	$0.35
Total Cost	$3.20	$3.15	$2.57	$3.04

*Does not include $150 calf value

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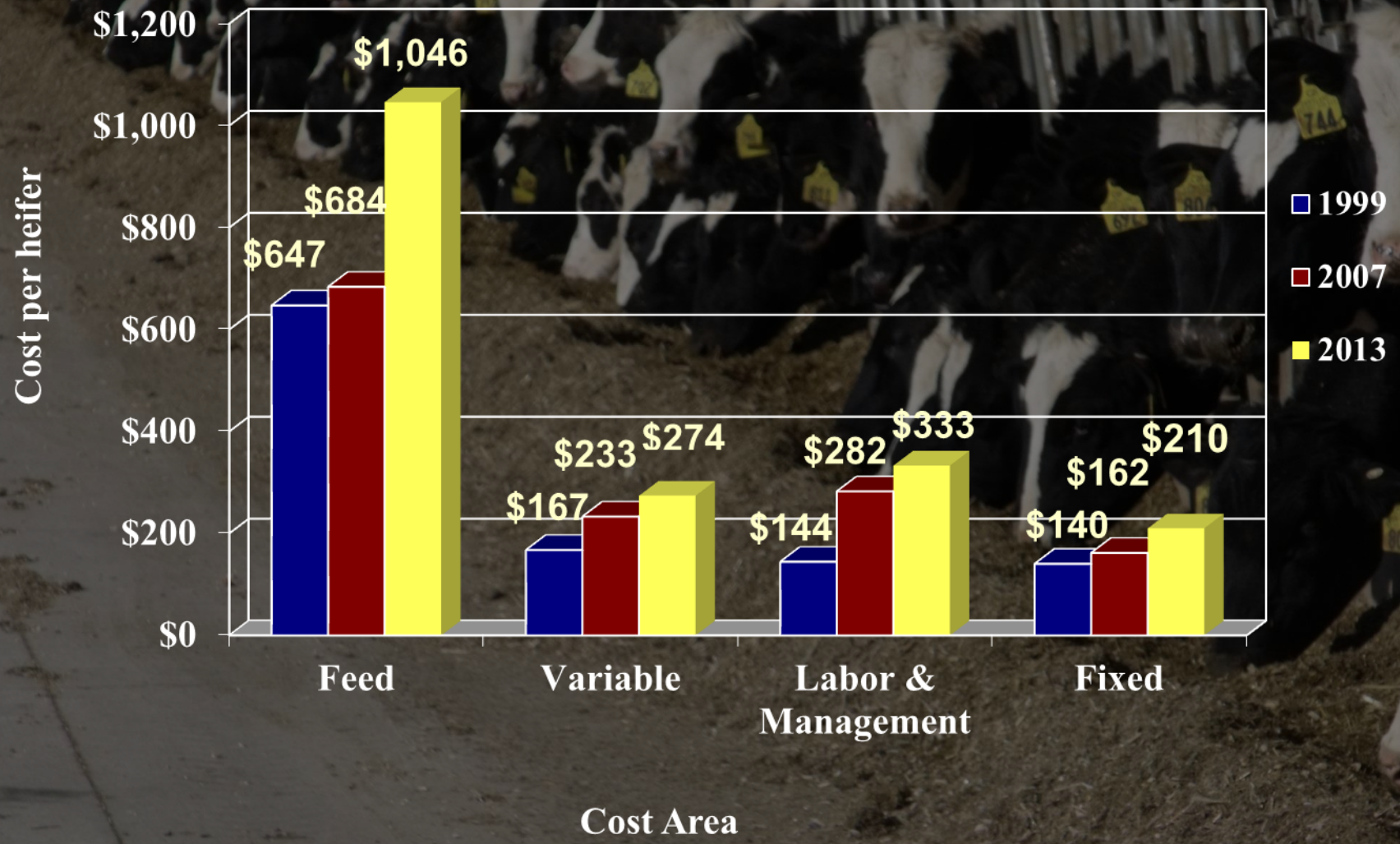
Comparison of Heifer Raising Costs
1999 vs 2007 vs 2013



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Total Cost to Raise a Dairy Replacement from Birth to Freshening*

	1999	2007	2013
Total Cost	$1259.38	$1648.77	$2226.88
Days on Feed	743	709	680
Calving Age (months)	24.6	23.9	23.4

***Does not include $150 calf value**

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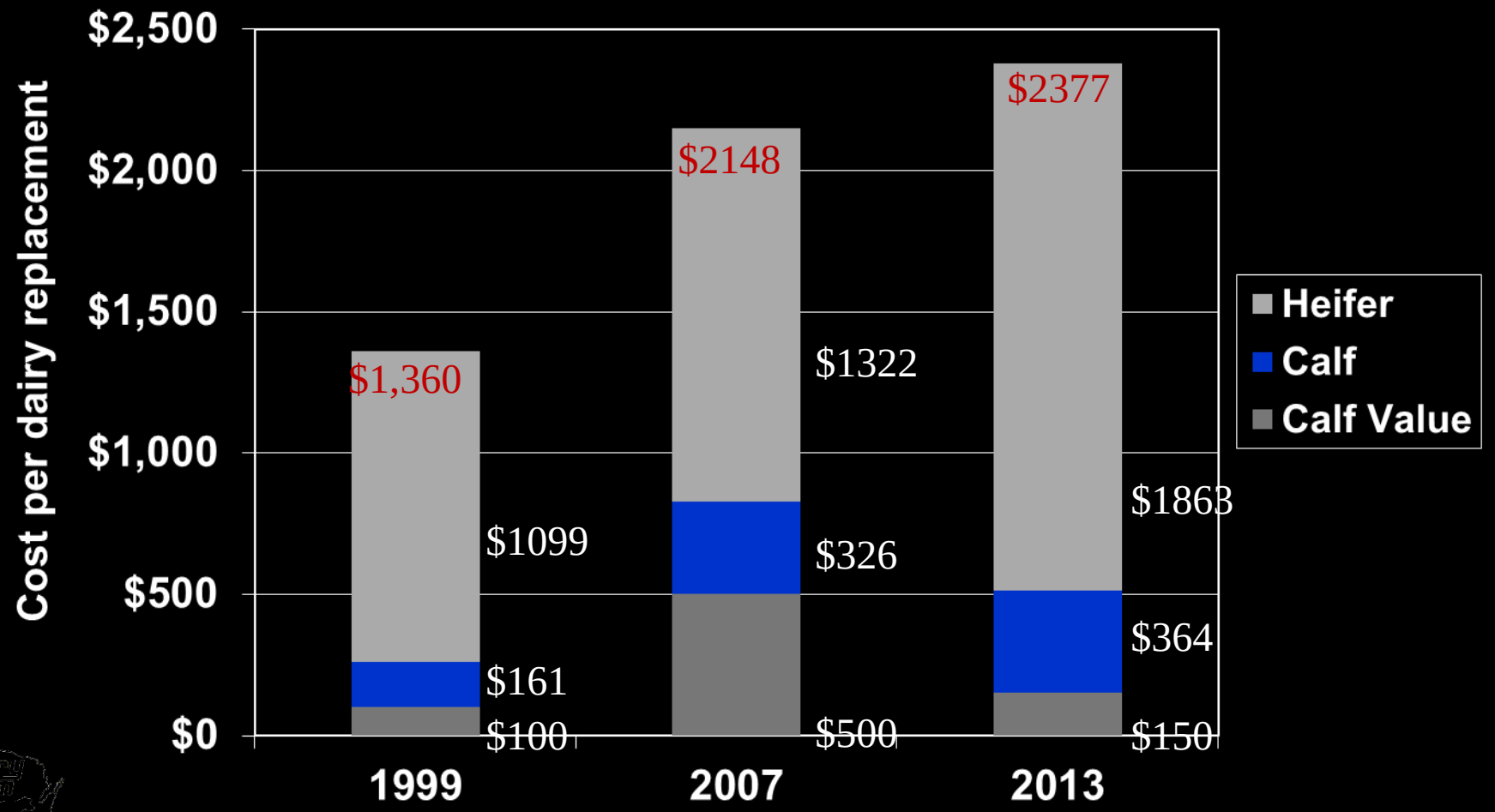
Total Cost to Raise a Dairy Replacement from Birth to Freshening

1999 vs 2007 vs 2013



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Take Home Message(s)

- Custom heifer growers do not typically raise dairy heifers to calving thus total days on feed are less for heifers raised on custom heifer rearing operations.
- The cost of semen and breeding services are sometimes paid by the owner therefore breeding cost may be artificially low.

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Take Home Message(s)

- The total cost to raise a dairy replacement from birth to calving on Wisconsin dairy and custom calf and heifer operations (not counting the opportunity cost of the calf) has increased approximately $600 from 2007 to 2013.
- The majority of the increase is due to increased feed and labor costs.

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Cost of Raising a Heifer in Wisconsin*
(2014 Adjusted Feed Expense)

	2013	Example 2013	Example 2014
Total Cost (Ave)	$1863.19	$2221.27	$2154.82
Total Cost (T/S)	$1955.89		
Daily Cost	$3.04	$3.48	$3.38
Feed Cost (Ave)	$1.71		
Feed Cost (T/S)	$1.66	$1.57	$1.47
Days on Feed	611	638	638

.10/hd/day X 638 = $63.80

***Does not include $150 calf value**

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Thank You…

For more information please contact:

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For more information please refer to:

ICPA Information Website

tinyurl.com/kgd2npy

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WISCONSIN DAIRY WELL-BEING CONFERENCE

MARCH 7, 2014

Clarion Hotel & Conference Center
2703 Craig Road
Eau Claire, WI

8:30 AM—3:00 PM

WI Dairy Well-Being Conference

The care and well being of cattle in the state of Wisconsin is important to consumers and farmers alike. This conference will help producers improve the care of their cattle and gain a better understanding of advocating animal well-being.

Program Agenda

8:30 AM Registration

9:00 AM Welcome and Introductions

9:10 AM McDonald's Global Animal Health and Welfare – A Practical Approach
Bruce Feinberg, McDonald's Corporation
Mr. Feinberg will discuss the McDonald Corporation's perspectives on the expectations of their consumer base, challenges that our food industry faces, opportunities for improvement, and a final charge to move forward & adapt for the health and well-being of our food supply.

10:00 AM Animal Well-Being: Opinions, Ethics, & Science
Dr. Amy Stanton, Assistant Professor, UW-Madison, UW-Extension

10:50AM Break

11:00AM The Value of a Cull Cow-The Packer Perspective
Lily Edwards-Callaway, PhD, JBS
Dr. Edwards-Callaway will discuss how processors and producers both benefit from a "marketing" perspective instead of the old "culling" mindset.

11:50AM Lunch

Break-out Sessions

12:30-1:30PM Choose one - 60 minutes each

A. Euthanasia Update
Dr. Kurt Vogel, UW-River Falls

B. The Importance of Advocating Animal Well-Being via Social Media Channels
Amy Manske, Wisconsin Farm Bureau Federation

C. Focus Group

1:30PM Break

1:45PM Replacing Outcry with Outreach
Denny Harding, Iowa Farm Animal Care Coalition
Mr. Harding will discuss experiences from his time with the Iowa Farm Animal Care Coalition (IFAC). IFAC is designed to answer Iowans' questions about farm animal care and assist farmers in farm animal care resources to help ensure all Iowa farm animals benefit from the latest science-based animal care standards.

2:40PM Evaluation/Wrap-up

3:00PM Adjourn

For more information contact
Mark Hagedorn,
Eau Claire County Dairy & Livestock Agent at:
mark.hagedorn@ces.uwex.edu or 715-839-4712.

Limited Conference Lodging Available

A limited block of rooms have been reserved for March 6th & 7th at the Clarion. The hotel is located at 2703 Craig Rd, Eau Claire, WI 54701.

To make reservations at the specialized group rate contact the Clarion Suites directly at 715-835-2211 and ask for the WI Dairy Well-Being Conference group rate.

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