



Making Sure You Make Money

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Walnut Creek Extension District
Beef Tips & Dinner
 Tuesday, November 20
 6:00 p.m., LaCrosse
 Livestock Market



Making sure you make money ...

- What exactly does that mean?
- Many things are out of your control, so how can you be “sure” of anything?
- Problems/mistakes/issues I’ve seen over the years and how we might deal with them
 - Variable vs. fixed cost
 - Opportunity vs. cash cost
 - Failure to know what costs are
 - Apples to oranges comparisons
 - Lack of understanding of economic principles

Outline of presentation...

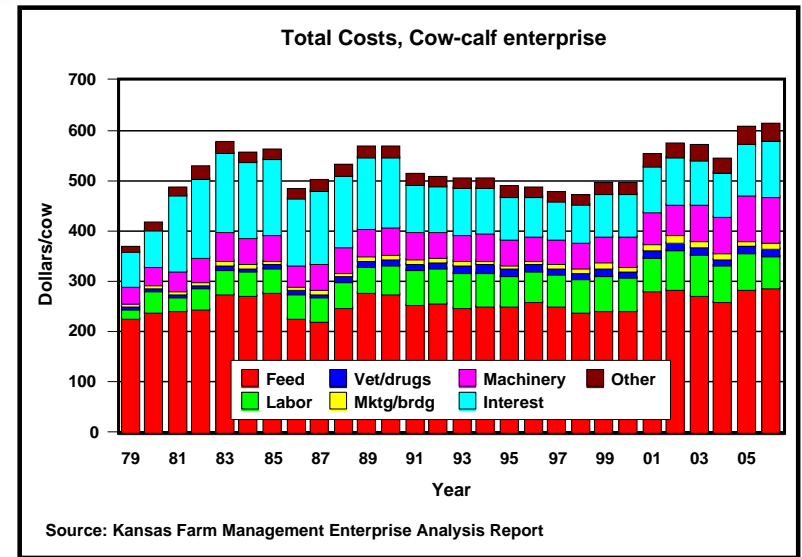
- Economic principles – brief discussion
- Historical cost-returns
 (cow-calf, backgrounding, and finishing)
- Simplified examples of budgets showing different types of costs
- Examples showing how method of analysis regarding price premiums/discounts can impact results and conclusions

Economic principles...

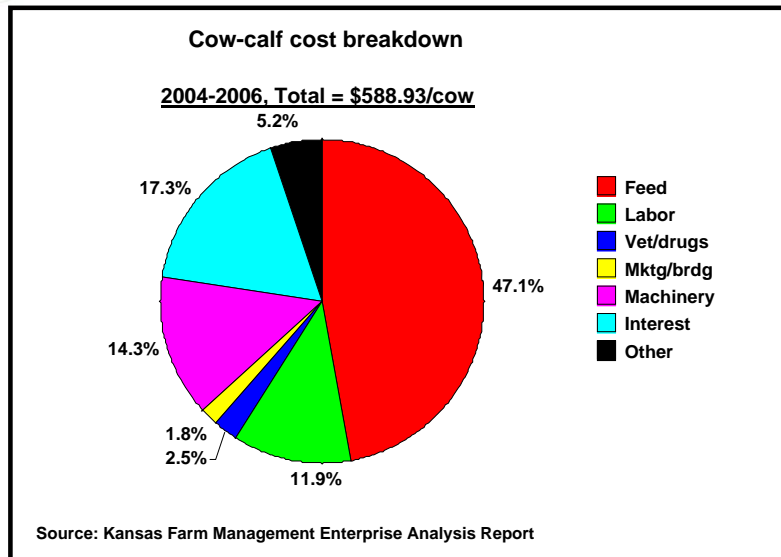
- In competitive industries,
 $LR \text{ price} = \text{Avg cost} \rightarrow \text{Avg economic profit} = \0
- In commodities markets,
 Price is same/similar for everybody
 $\text{Economic profits} > \$0 \rightarrow \text{cost} < \text{average}$
- Risk-return trade-off
 Higher risk enterprises realize higher returns
 Early adopters capture higher returns
- Efficient markets (prices, resource allocation)
 Degree of “efficiency” depends on information

Historical Cost>Returns for Cow/Calf Enterprise

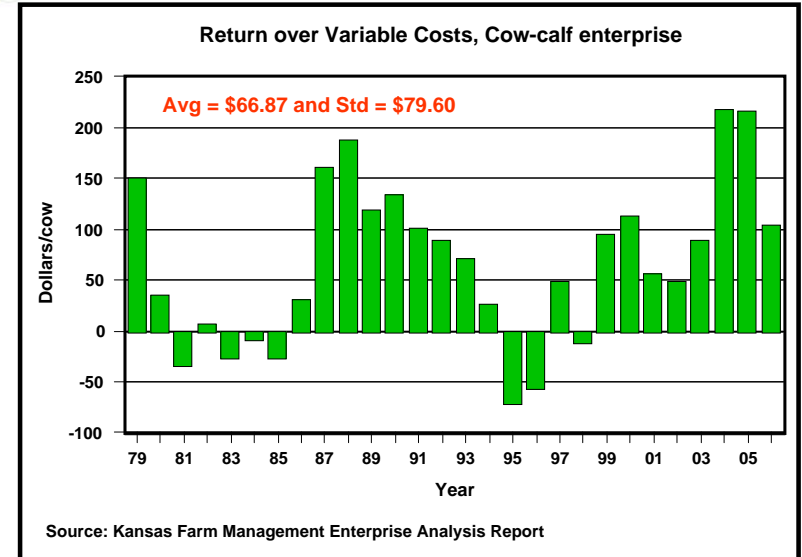
- **KFMA enterprise analysis**
 - Beef cow-calf averages, 1979-2006 (93 to 258 farms)
 - Dollars/cow and dollars/cwt
- **Variable costs:** hired labor, machinery repair, interest paid, feed purchased, machine hire-lease, farm org. fees/travel/pub, vet medicine/drugs, marketing/breeding, gas/fuel/oil, personal property tax, general farm insurance, utilities, auto expense
- **Fixed costs:** depreciation, real estate tax, unpaid operator labor, interest charge



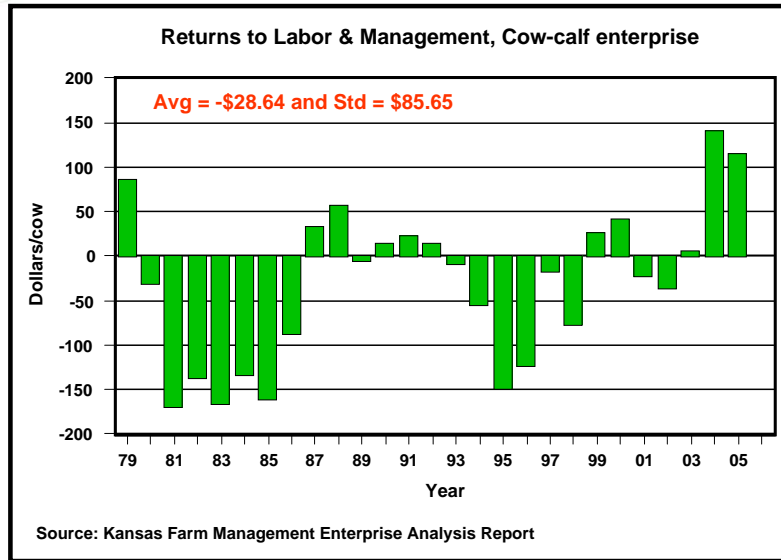
Do benchmark numbers have meaning, i.e., what does \$600/cow represent?



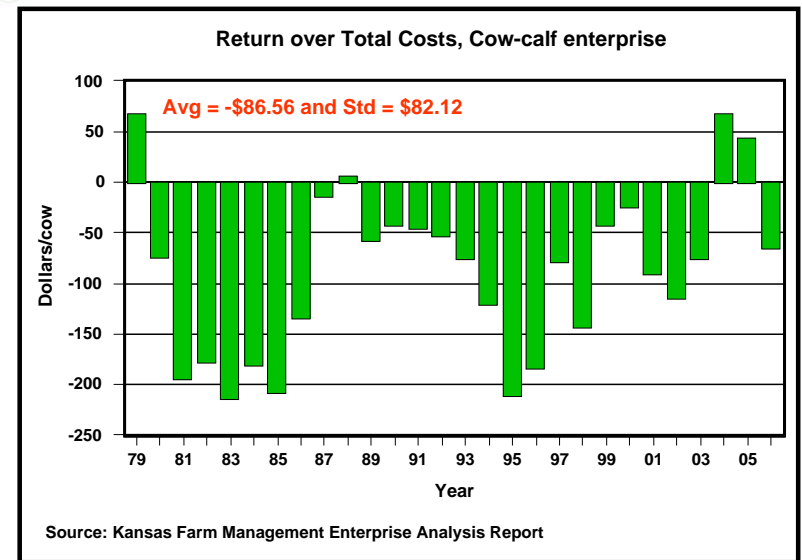
Most all categories have some aspect of being both variable and fixed



Useful measure for picking up broad trends over time (i.e., cattle cycles)



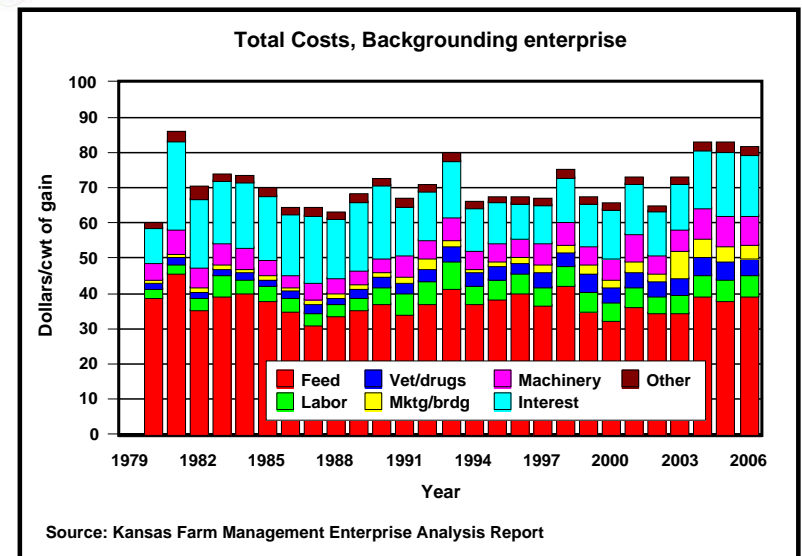
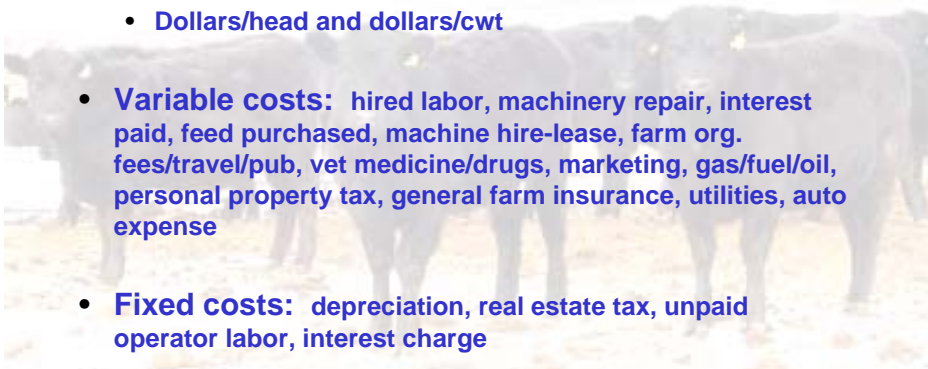
Not much returns to unpaid operator labor



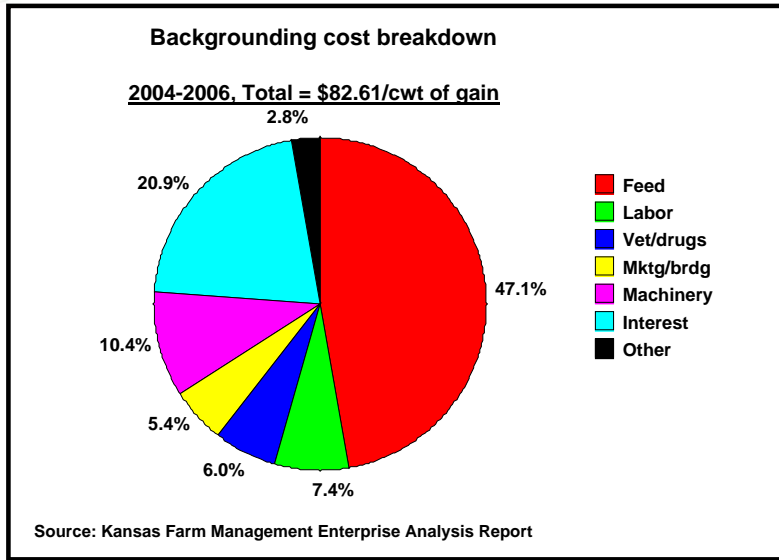
No return to management – what do we expect this to be?

Historical Cost>Returns for Backgrounding Enterprise

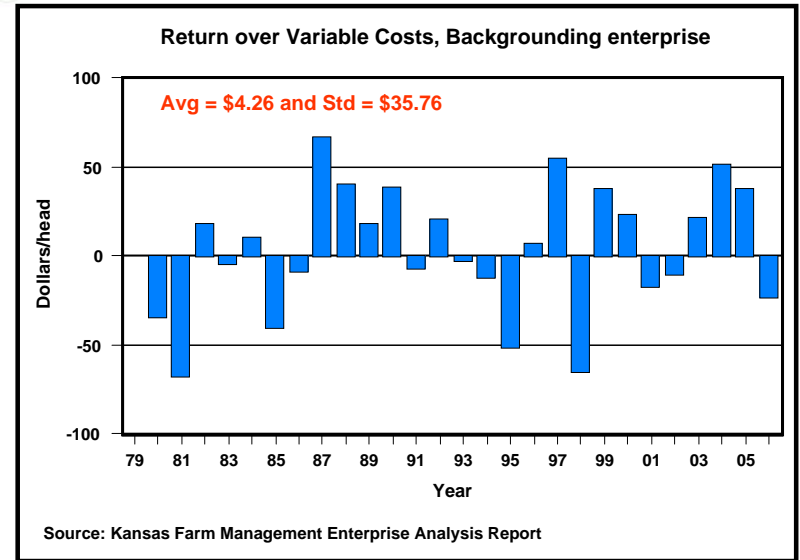
- **KFMA enterprise analysis**
 - Backgrounding averages, 1980-2006 (21 to 88 farms)
 - Dollars/head and dollars/cwt
- **Variable costs:** hired labor, machinery repair, interest paid, feed purchased, machine hire-lease, farm org. fees/travel/pub, vet medicine/drugs, marketing, gas/fuel/oil, personal property tax, general farm insurance, utilities, auto expense
- **Fixed costs:** depreciation, real estate tax, unpaid operator labor, interest charge



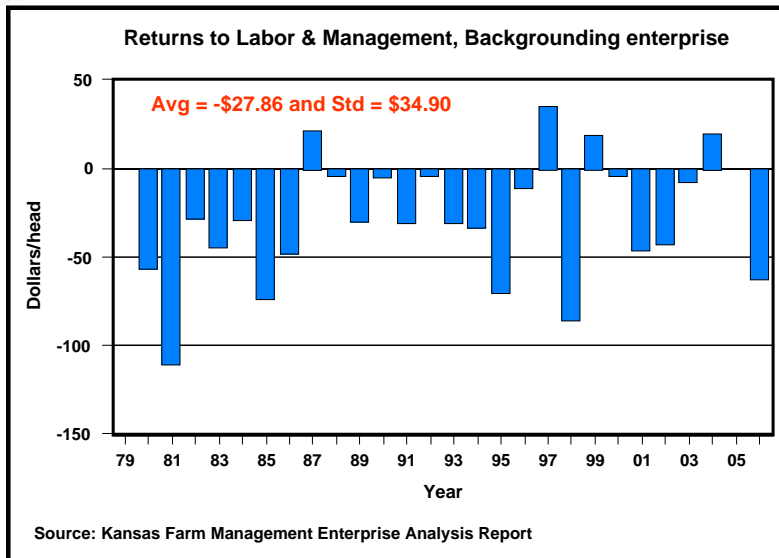
Cost of gain increase in recent years is not driven by feed costs



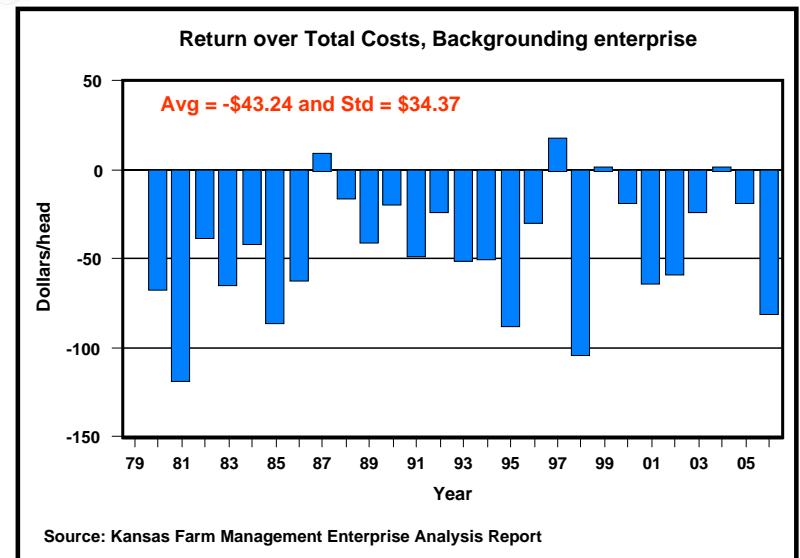
Feed percentage is similar to cows, but other categories differ



Returns greater than VC → keep using facilities...



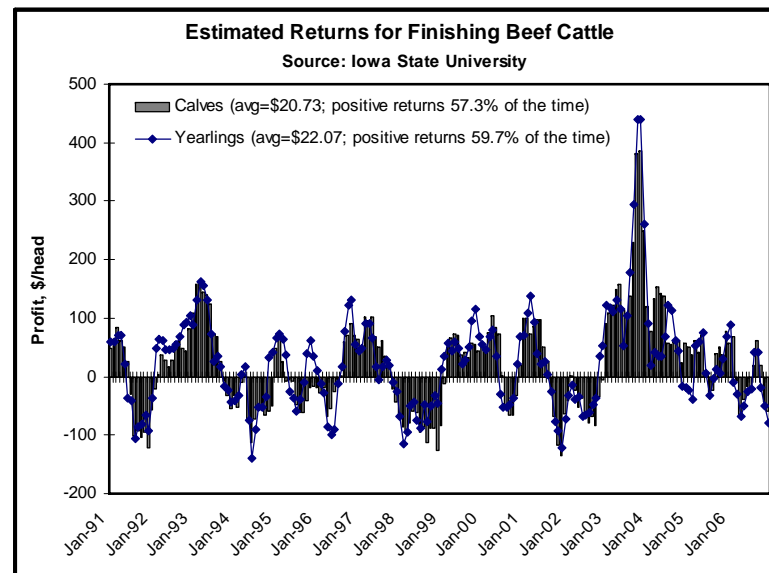
Hard to find employees that are willing to pay to do chores...



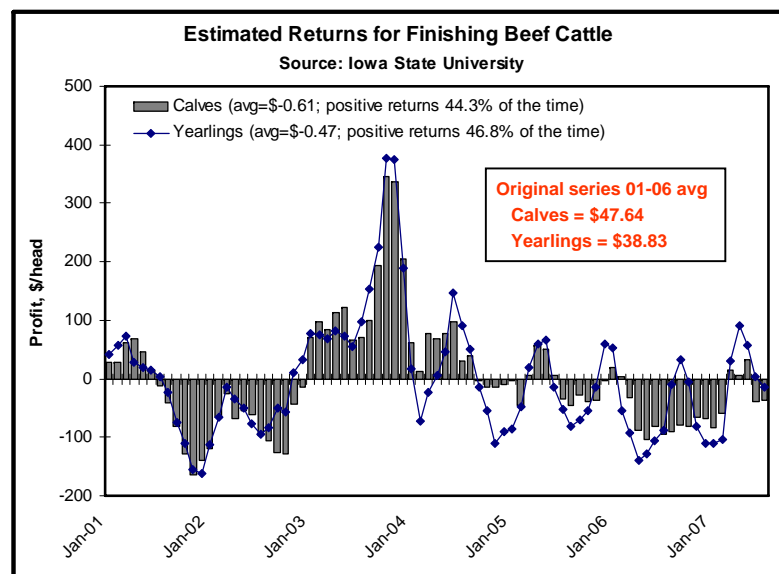
Returns less than TC → Not sustainable industry over time...

Historical Cost>Returns for Finishing Enterprise

- Iowa State University monthly projections
 - Calves (550 to 1150 lbs)
 - Yearlings (750 to 1250 lbs)
 - Revised models in 2007 (re-estimated 2001-2006)
 - Original series 1991-2006
 - Revised series 2001-2007
- Costs: feed (corn, distillers, hay, supplement and minerals), labor, and transportation
- Profit: reported per head and reported after actual prices are known (i.e., projection based on actual prices)



Original series



Revised series



Cow/Calf Enterprise Cost>Returns – Variability between producers



Cost-return information ...

KFMA enterprise analysis

- Beef cow-calf farm-level data
- 2002-2006 – minimum of 3-yr average
- 65 farms with avg weaning weight 450-650 lbs
- Sorted by return to management (i.e., return over total costs)



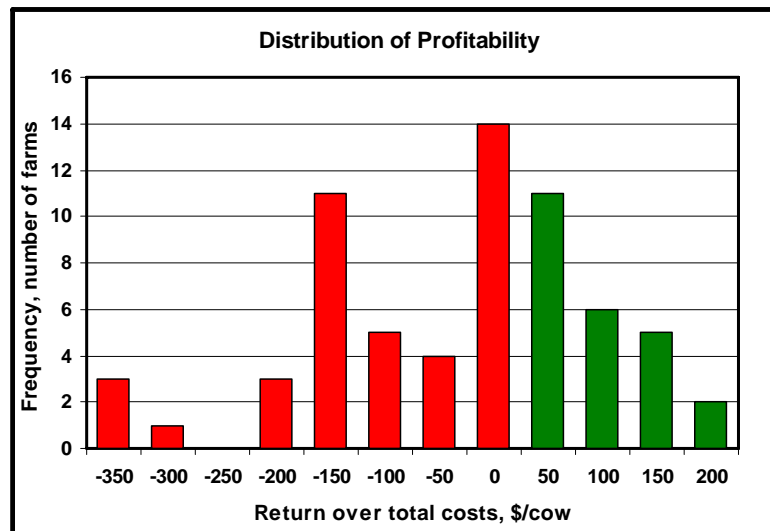
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	Profit Category			Difference between High 1/3 and Low 1/3	
	High 1/3	Mid 1/3	Low 1/3	Absolute	%
	Head / \$	Head / \$	Head / \$		
Number of Farms	22	22	21		
Number of Cows in Herd	163	131	80	84	105%
Number of Calves Sold	149	121	74	75	102%
Weight of Calves Sold	577	558	567	10	2%
Calif Sales Price / Cwt	\$104.04	\$101.48	\$99.80	\$4.24	4%
Gross Income	\$555.69	\$528.11	\$503.26	\$52.43	10%
Feed	\$255.49	\$268.09	\$315.21	-\$59.72	-19%
Interest	\$79.03	\$99.29	\$115.54	-\$36.51	-32%
Vet Medicine / Drugs	\$10.83	\$14.95	\$16.03	-\$5.20	-32%
Livestock Marketing / Breeding	\$7.20	\$10.47	\$10.91	-\$3.71	-34%
Depreciation	\$18.71	\$31.76	\$39.50	-\$20.79	-53%
Machinery	\$40.38	\$50.19	\$66.68	-\$26.30	-39%
Labor	\$58.12	\$70.06	\$112.71	-\$54.59	-48%
Other	\$24.51	\$27.17	\$44.86	-\$20.35	-45%
Total Cost	\$494.28	\$571.98	\$721.45	-\$227.16	-31%
Net Return to Management	\$61.40	-\$43.87	-\$218.19	\$279.59	

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Average profitability distribution ...



Average returns for individual producers: 37% positive and 63% negative

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Correlations between several economic and production variables (weak analysis, but it is a start)...

(higher absolute values are an indication of stronger relationships)

	Profit	Total cost	Feed cost	Labor cost	Dep, mach, int	Gross per cow	Selling weight	Sale price	Herd size	Year
Profit	1.00	-0.88	-0.47	-0.58	-0.71	0.50	0.01	0.32	0.37	0.30
Total cost	-0.88	1.00	0.59	0.55	0.80	-0.03	0.18	-0.23	-0.41	-0.24
Feed cost	-0.47	0.59	1.00	-0.10	0.28	0.11	0.30	-0.19	-0.41	-0.15
Labor cost	-0.58	0.55	-0.10	1.00	0.25	-0.20	0.05	-0.17	-0.23	-0.15
Dep, mach, int	-0.71	0.80	0.28	0.25	1.00	-0.07	0.03	-0.22	-0.26	-0.19
Gross per cow	0.50	-0.03	0.11	-0.20	-0.07	1.00	0.39	0.21	-0.02	0.18
Selling weight	0.01	0.18	0.30	0.05	0.03	0.39	1.00	-0.37	-0.31	-0.01
Sale price	0.32	-0.23	-0.19	-0.17	-0.22	0.21	-0.37	1.00	0.35	0.44
Herd size	0.37	-0.41	-0.41	-0.23	-0.26	-0.02	-0.31	0.35	1.00	-0.08
Year	0.30	-0.24	-0.15	-0.15	-0.19	0.18	-0.01	0.44	-0.08	1.00

Little to no relationship between these variables ($r < |0.10|$)

Negative relationship between these variables ($r < -0.40$)

Positive relationship between these variables ($r > 0.40$)

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Summary of historical returns...

- Considerable variability in returns over time, but variability between producers at a point in time is much larger (cow-calf > backgrounder > feedlot).
- Cost differences between producers explains much of the variability in profitability differences.
- Correlation between dep., mach., & int. costs and profit greater than feed costs and profit. Labor costs also stronger correlation than feed costs.
- Larger cow-calf operations tend to have lower costs and be more profitable, but smaller operations can be competitive (it's just harder to do on average).

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Example budgets...

- Cow selling steer calf
(income adjusted for heifer calf and cull cow)
- Backgrounding steer calf
- Finishing feeder steer
- Simplified examples, but the point is to show how including/excluding costs and method of valuing inputs impacts the bottom line...

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	
RETURNS PER CALF SOLD		
Selling weight, lbs/hd	560	
Selling price, \$/cwt	\$120.29	
Gross Income, \$/hd	\$673.62	
Purchase weight, lbs/hd	0	
Purchase price, \$/cwt	\$0.00	
Cost of Animal, \$/hd	\$0.00	
Less death loss	11.4%	
Other income, \$/head	\$133.76	← Adjustment for heifer and cull income
A. GROSS RETURNS PER HEAD	\$730.59	
COSTS PER HEAD		
Summer pasture	\$141.15	
Crop residue, hay, and silage	144.48	
Grain, protein and mineral	31.72	
Labor	54.00	
Veterinary, drugs, and supplies	15.00	
Marketing costs	11.00	
Utilities, fuel, and oil	40.00	
Facility and equipment repairs	40.00	
Capital replacement	113.43	
Annual bull cost	13.00	
Interest on breeding stock	75.14	
Insurance on breeding stock	8.84	
Miscellaneous	12.00	
Facilities and equipment -- DITI	31.70	
B. SUB TOTAL	\$731.47	
Interest on operating costs	21.26	
C. TOTAL COSTS PER HEAD	\$752.73	
D. RETURNS OVER TC (A - C)	-\$22.14	

Similar to KFMA data,
hard to cover total
costs of production.

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

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COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	
RETURNS PER CALF SOLD				
Selling weight, lbs/hd	560	100%	560	
Selling price, \$/cwt	\$120.29	100%	\$120.29	
Gross Income, \$/hd	\$673.62		\$673.62	
Purchase weight, lbs/hd	0	100%	0	
Purchase price, \$/cwt	\$0.00	100%	\$0.00	
Cost of Animal, \$/hd	\$0.00		\$0.00	
Less death loss	11.4%	100%	11.4%	
Other income, \$/head	\$133.76	100%	\$133.76	
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	
COSTS PER HEAD				
Summer pasture	\$141.15	100%	\$141.15	
Crop residue, hay, and silage	144.48	75%	108.36	← No charge for residue and/or COP for hay
Grain, protein and mineral	31.72	100%	31.72	
Labor	54.00	20%	10.80	← No charge for owner/operator labor
Veterinary, drugs, and supplies	15.00	100%	15.00	
Marketing costs	11.00	100%	11.00	
Utilities, fuel, and oil	40.00	50%	20.00	← Allocation and/or fixed cost issues
Facility and equipment repairs	40.00	50%	20.00	
Capital replacement	113.43	100%	113.43	
Annual bull cost	13.00	100%	13.00	
Interest on breeding stock	75.14	100%	75.14	
Insurance on breeding stock	8.84	100%	8.84	
Miscellaneous	12.00	0%	0.00	← \$153 head change due to assumptions that may or may not be correct.
Facilities and equipment -- DITI	31.70	50%	15.85	
B. SUB TOTAL	\$731.47		\$584.30	
Interest on operating costs	21.26		15.68	
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

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COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	0 Background
RETURNS PER CALF SOLD				
Selling weight, lbs/hd	560	100%	560	750
Selling price, \$/cwt	\$120.29	100%	\$120.29	\$108.62
Gross Income, \$/hd	\$673.62		\$673.62	\$814.65
Purchase weight, lbs/hd	0	100%	0	560
Purchase price, \$/cwt	\$0.00	100%	\$0.00	\$107.14
Cost of Animal, \$/hd	\$0.00		\$0.00	\$599.98
Less death loss	11.4%	100%	11.4%	1.0%
Other income, \$/head	\$133.76	100%	\$133.76	\$0.00
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$206.53
COSTS PER HEAD				
Summer pasture	\$141.15	100%	\$141.15	\$0.00
Crop residue, hay, and silage	144.48	75%	108.36	38.16
Grain, protein and mineral	31.72	100%	31.72	57.79
Labor	54.00	20%	10.80	8.64
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50
Marketing costs	11.00	100%	11.00	7.00
Utilities, fuel, and oil	40.00	50%	20.00	7.25
Facility and equipment repairs	40.00	50%	20.00	10.00
Capital replacement	113.43	100%	113.43	0.00
Annual bull cost	13.00	100%	13.00	0.00
Interest on breeding stock	75.14	100%	75.14	0.00
Insurance on breeding stock	8.84	100%	8.84	0.00
Miscellaneous	12.00	0%	0.00	6.00
Facilities and equipment -- DITI	31.70	50%	15.85	33.22
B. SUB TOTAL	\$731.47		\$584.30	\$183.55
Interest on operating costs	21.26		15.68	20.76
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$204.31
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	\$2.21

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	1 Background
RETURNS PER CALF SOLD				
Selling weight, lbs/hd	560	100%	560	750
Selling price, \$/cwt	\$120.29	100%	\$120.29	\$108.62
Gross Income, \$/hd	\$673.62		\$673.62	\$814.65
Purchase weight, lbs/hd	0	100%	0	560
Purchase price, \$/cwt	\$0.00	100%	\$0.00	\$120.29
Cost of Animal, \$/hd	\$0.00		\$0.00	\$673.62
Less death loss	11.4%	100%	11.4%	1.0%
Other income, \$/head	\$133.76	100%	\$133.76	\$0.00
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$132.88
COSTS PER HEAD				
Summer pasture	\$141.15	100%	\$141.15	\$0.00
Crop residue, hay, and silage	144.48	75%	108.36	38.16
Grain, protein and mineral	31.72	100%	31.72	57.79
Labor	54.00	20%	10.80	8.64
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50
Marketing costs	11.00	100%	11.00	7.00
Utilities, fuel, and oil	40.00	50%	20.00	7.25
Facility and equipment repairs	40.00	50%	20.00	10.00
Capital replacement	113.43	100%	113.43	0.00
Annual bull cost	13.00	100%	13.00	0.00
Interest on breeding stock	75.14	100%	75.14	0.00
Insurance on breeding stock	8.84	100%	8.84	0.00
Miscellaneous	12.00	0%	0.00	6.00
Facilities and equipment -- DITI	31.70	50%	15.85	33.22
B. SUB TOTAL	\$731.47		\$584.30	\$183.55
Interest on operating costs	21.26		15.68	22.56
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$206.11
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	-\$73.24

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	1 Background	% of base	Alternative Bckgrnd	0 Finish
RETURNS PER CALF SOLD							
Selling weight, lbs/hd	560	100%	560	750	100%	750	
Selling price, \$/cwt	\$120.29	100%	\$120.29	\$108.62	100%	\$108.62	
Gross Income, \$/hd	\$673.62		\$673.62	\$814.65		\$814.65	
Purchase weight, lbs/hd	0	100%	0	560	100%	560	
Purchase price, \$/cwt	\$0.00	100%	\$0.00	\$120.29	100%	\$120.29	
Cost of Animal, \$/hd	\$0.00		\$0.00	\$673.62		\$673.62	
Less death loss	11.4%	100%	11.4%	1.0%	100%	1.0%	
Other income, \$/head	\$133.76	100%	\$133.76	\$0.00	100%	\$0.00	
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$132.88		\$132.88	
COSTS PER HEAD							
Summer pasture	\$141.15	100%	\$141.15	\$0.00	100%	\$0.00	
Crop residue, hay, and silage	144.48	75%	108.36	38.16	75%	28.62	
Grain, protein and mineral	31.72	100%	31.72	57.79	75%	43.34	
Labor	54.00	20%	10.80	8.64	20%	1.73	
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50	100%	15.50	
Marketing costs	11.00	100%	11.00	7.00	100%	7.00	
Utilities, fuel, and oil	40.00	50%	20.00	7.25	50%	3.63	
Facility and equipment repairs	40.00	50%	20.00	10.00	50%	5.00	
Capital replacement	113.43	100%	113.43	0.00	100%	0.00	
Annual bull cost	13.00	100%	13.00	0.00	100%	0.00	
Interest on breeding stock	75.14	100%	75.14	0.00	100%	0.00	
Insurance on breeding stock	8.84	100%	8.84	0.00	100%	0.00	
Miscellaneous	12.00	0%	0.00	6.00	0%	0.00	
Facilities and equipment -- DITI	31.70	50%	15.85	33.22	50%	16.61	
B. SUB TOTAL	\$731.47		\$584.30	\$183.55		\$121.42	
Interest on operating costs	21.26		15.68	22.56		20.63	
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$206.11		\$142.05	
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	-\$73.24		-\$9.17	

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	1 Background	% of base	Alternative Bckgrnd	0 Finish
RETURNS PER CALF SOLD							
Selling weight, lbs/hd	560	100%	560	750	100%	750	1225
Selling price, \$/cwt	\$120.29	100%	\$120.29	\$108.62	100%	\$108.62	\$92.98
Gross Income, \$/hd	\$673.62		\$673.62	\$814.65		\$814.65	\$1,138.94
Purchase weight, lbs/hd	0	100%	0	560	100%	560	750
Purchase price, \$/cwt	\$0.00	100%	\$0.00	\$120.29	100%	\$120.29	\$98.94
Cost of Animal, \$/hd	\$0.00		\$0.00	\$673.62		\$673.62	\$742.02
Less death loss	11.4%	100%	11.4%	1.0%	100%	1.0%	
Other income, \$/head	\$133.76	100%	\$133.76	\$0.00	100%	\$0.00	\$0.00
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$132.88		\$132.88	\$385.53
COSTS PER HEAD							
Summer pasture	\$141.15	100%	\$141.15	\$0.00	100%	\$0.00	\$0.00
Crop residue, hay, and silage	144.48	75%	108.36	38.16	75%	28.62	26.34
Grain, protein and mineral	31.72	100%	31.72	57.79	75%	43.34	239.86
Labor	54.00	20%	10.80	8.64	20%	1.73	8.64
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50	100%	15.50	12.00
Marketing costs	11.00	100%	11.00	7.00	100%	7.00	6.00
Utilities, fuel, and oil	40.00	50%	20.00	7.25	50%	3.63	7.00
Facility and equipment repairs	40.00	50%	20.00	10.00	50%	5.00	8.00
Capital replacement	113.43	100%	113.43	0.00	100%	0.00	0.00
Annual bull cost	13.00	100%	13.00	0.00	100%	0.00	0.00
Interest on breeding stock	75.14	100%	75.14	0.00	100%	0.00	0.00
Insurance on breeding stock	8.84	100%	8.84	0.00	100%	0.00	0.00
Miscellaneous	12.00	0%	0.00	6.00	0%	0.00	6.25
Facilities and equipment -- DITI	31.70	50%	15.85	33.22	50%	16.61	33.22
B. SUB TOTAL	\$731.47		\$584.30	\$183.55		\$121.42	\$347.30
Interest on operating costs	21.26		15.68	22.56		20.63	39.01
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$206.11		\$142.05	\$386.32
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	-\$73.24		-\$9.17	-\$0.79

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

	Baseline Cow-calf	% of base	Alternative Cow-calf	1 Background	% of base	Alternative Bckgrnd	1 Finish
RETURNS PER CALF SOLD							
Selling weight, lbs/hd	560	100%	560	750	100%	750	1225
Selling price, \$/cwt	\$120.29	100%	\$120.29	\$108.62	100%	\$108.62	\$92.98
Gross Income, \$/hd	\$673.62						\$1,138.94
Purchase weight, lbs/hd	0	100%					750
Purchase price, \$/cwt	\$0.00	100%		\$108.62			\$108.62
Cost of Animal, \$/hd	\$0.00			\$814.65			\$814.65
Less death loss	11.4%	100%					1.0%
Other income, \$/head	\$133.76	100%					\$0.00
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$132.88		\$132.88	\$312.90
COSTS PER HEAD							
Summer pasture	\$141.15	100%	\$141.15	\$0.00	100%	\$0.00	\$0.00
Crop residue, hay, and silage	144.48	75%	108.36	38.16	75%	28.62	26.34
Grain, protein and mineral	31.72	100%	31.72	57.79	75%	43.34	239.86
Labor	54.00	20%	10.80	8.64	20%	1.73	8.64
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50	100%	15.50	12.00
Marketing costs	11.00	100%	11.00	7.00	100%	7.00	6.00
Utilities, fuel, and oil	40.00	50%	20.00	7.25	50%	3.63	7.00
Facility and equipment repairs	40.00	50%	20.00	10.00	50%	5.00	8.00
Capital replacement	113.43	100%	113.43	0.00	100%	0.00	0.00
Annual bull cost	13.00	100%	13.00				0.00
Interest on breeding stock	75.14	100%	75.14				0.00
Insurance on breeding stock	8.84	100%	8.84				0.00
Miscellaneous	12.00	0%	0.00				6.25
Facilities and equipment -- DITI	31.70	50%	15.85				33.22
B. SUB TOTAL	\$731.47		\$584.30				\$347.30
Interest on operating costs	21.26		15.68	22.56		20.63	41.55
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$206.11		\$142.05	\$388.85
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	-\$73.24		-\$9.17	-\$75.95

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

COST-RETURN PROJECTIONS --- BEEF CATTLE ENTERPRISES*

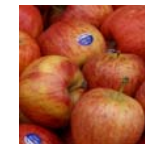
	Baseline Cow-calf	% of base	Alternative Cow-calf	1 Background	% of base	Alternative Bckgrnd	1 Finish	% of base	Alternative Finish
RETURNS PER CALF SOLD									
Selling weight, lbs/hd	560	100%					1225	100%	1225
Selling price, \$/cwt	\$120.29	100%					\$92.98	105%	\$97.48
Gross Income, \$/hd	\$673.62						\$1,138.94		\$1,194.07
Purchase weight, lbs/hd	0	100%					750	100%	750
Purchase price, \$/cwt	\$0.00	100%		\$108.62			\$108.62	100%	\$108.62
Cost of Animal, \$/hd	\$0.00			\$814.65			\$814.65		\$814.65
Less death loss	11.4%	100%	11.4%	1.0%	100%	1.0%	1.0%	100%	1.0%
Other income, \$/head	\$133.76	100%	\$133.76	\$0.00	100%	\$0.00	\$0.00	100%	\$0.00
A. GROSS RETURNS PER HEAD	\$730.59		\$730.59	\$132.88		\$132.88	\$312.90		\$367.48
COSTS PER HEAD									
Summer pasture	\$141.15	100%	\$141.15	\$0.00	100%	\$0.00	\$0.00	100%	\$0.00
Crop residue, hay, and silage	144.48	75%	108.36	38.16	75%	28.62	26.34	100%	26.34
Grain, protein and mineral	31.72	100%	31.72	57.79	75%	43.34	239.86	100%	239.86
Labor	54.00	20%	10.80	8.64	20%	1.73	8.64	100%	8.64
Veterinary, drugs, and supplies	15.00	100%	15.00	15.50	100%	15.50	12.00	100%	12.00
Marketing costs	11.00	100%	11.00	7.00	100%	7.00	6.00	100%	6.00
Utilities, fuel, and oil	40.00	50%	20.00	7.25	50%	3.63	7.00	100%	7.00
Facility and equipment repairs	40.00	50%	20.00	10.00	50%	5.00	8.00	100%	8.00
Capital replacement	113.43	100%	113.43	0.00	100%	0.00	0.00	100%	0.00
Annual bull cost	13.00	100%	13.00				0.00		0.00
Interest on breeding stock	75.14	100%	75.14				0.00		0.00
Insurance on breeding stock	8.84	100%	8.84				0.00		0.00
Miscellaneous	12.00	0%	0.00				6.00	0%	6.25
Facilities and equipment -- DITI	31.70	50%	15.85				33.22	50%	33.22
B. SUB TOTAL	\$731.47		\$584.30	\$183.55		\$142.05	\$388.85		\$347.30
Interest on operating costs	21.26		15.68	22.56		20.63	41.55		41.55
C. TOTAL COSTS PER HEAD	\$752.73		\$599.98	\$206.11		\$142.05	\$388.85		\$388.85
D. RETURNS OVER TC (A - C)	-\$22.14		\$130.61	-\$73.24		-\$9.17	-\$75.95		-\$21.37

* Baseline budgets are based on MF-266, MF-600, and MF-592 with adjustments made for simplification and current market conditions.

Summary of valuing inputs...

- If operation is to stay in business over time, fixed costs need to be covered, especially something to be aware of when adding cows, acres, etc.
- Appropriate value for some inputs (e.g., labor, forages, feed, equipment) can vary considerably between operations. If input has “market opportunity,” cost should reflect this.
- When “natural breaks” exist, enterprises should be forced to stand on their own.
- Identifying costs accurately is not necessarily easy, but it is important to help understand *what is making you money* (or more importantly, what isn't)

Method of analysis and how it can impact results and conclusions



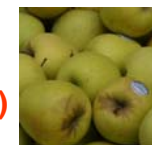
vs.
(need to avoid)



vs.
(ideal)



vs.
(reality w/effort)





Holton Livestock Exchange, Inc. Special LMA-VACC Sale Analysis



Kevin Dhuyvetter, K-State Ag Economist
Jody Holthaus and David Hallauer, K-State Ag Agents

Background/general information

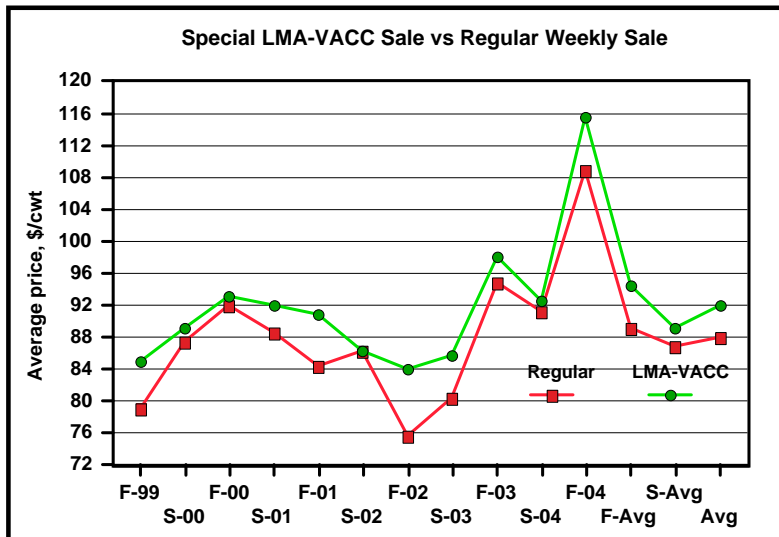
- Information collected on each lot . . .

Order in sale	Quality*
Number in lot	Condition
Price	Frame size*
Weight	Health*
Sex	Muscle*
Breed/color*	Uniformity
Level*	Horns

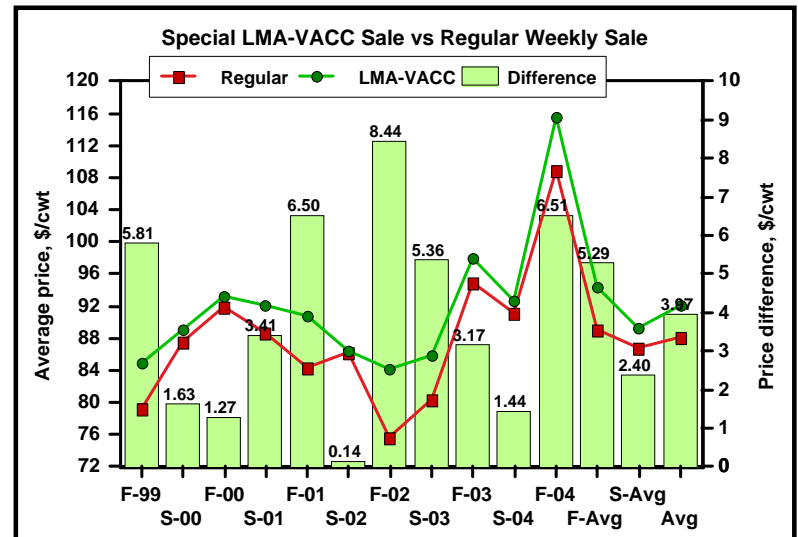
* Varied over time (definition and availability)

- 11 separate sales (fall 99/spring 00 – fall 04)
Regular sale is on Tue and LMA-VACC on Thur evening

Comparing the raw data – average prices . . .



Why not simply look at average prices?

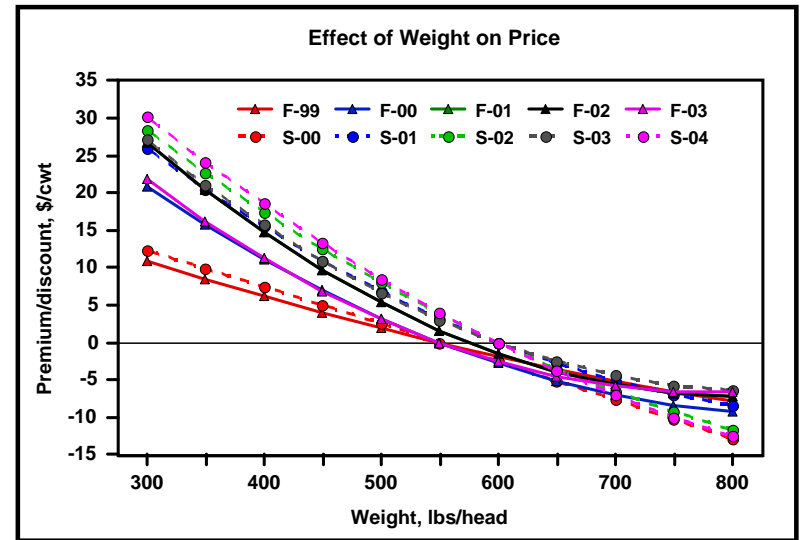


Regression analysis . . .

- “Isolates” the impact of an individual trait while accounting for all other traits
- Results are additive across traits
- Has been extensively used in hedonic pricing studies (e.g., feeder cattle, cows, bulls, horses, wheat, land)

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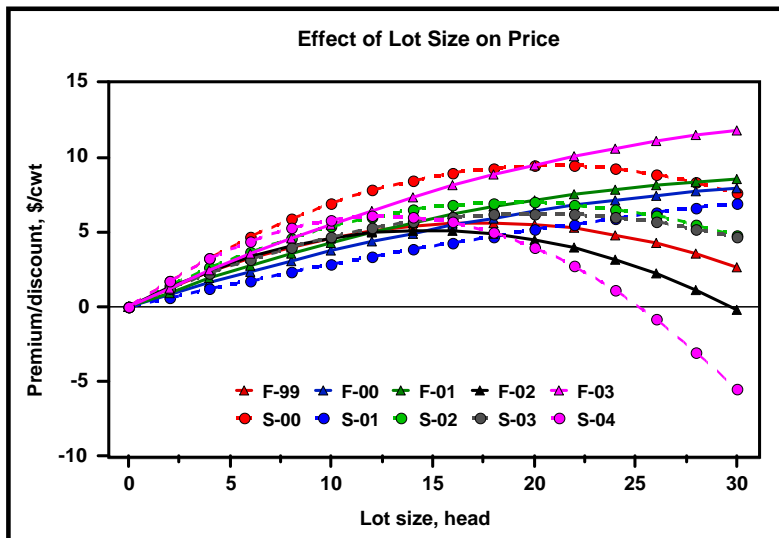
Weight impacts price...



If weight is not equal across sales, results based on averages will be biased...

42

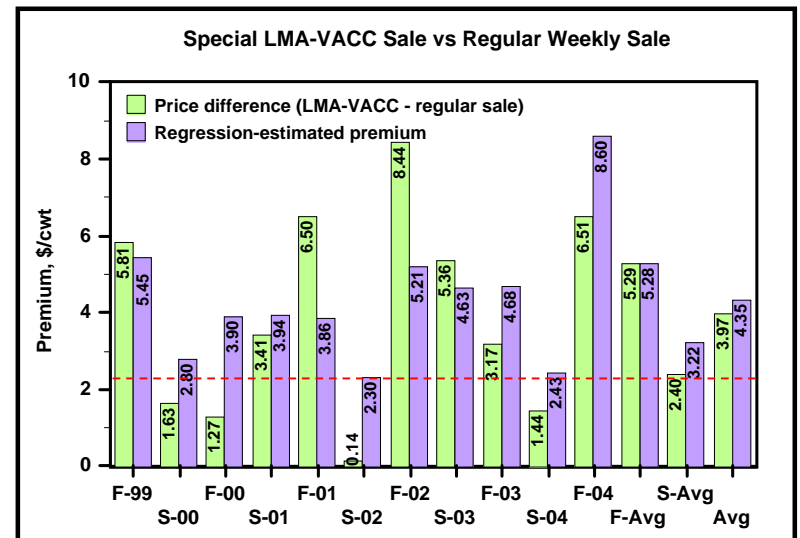
Lot size impacts price...



If lot size is not equal across sales, results based on averages will be biased...

43

Model-based premiums differ from averages



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CAB – “Where’s the Premium” Study



Analysis of data collected and reported by auction market operators for Angus calves (fall) and feeders (spring) steers and heifers and their “comparable non-Angus” counterparts.

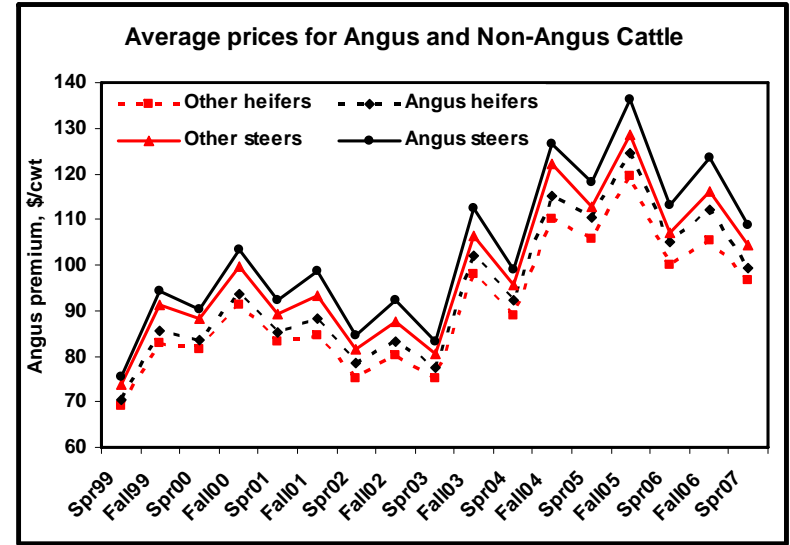


17 time periods (spring 99/fall 99 – spring 07)

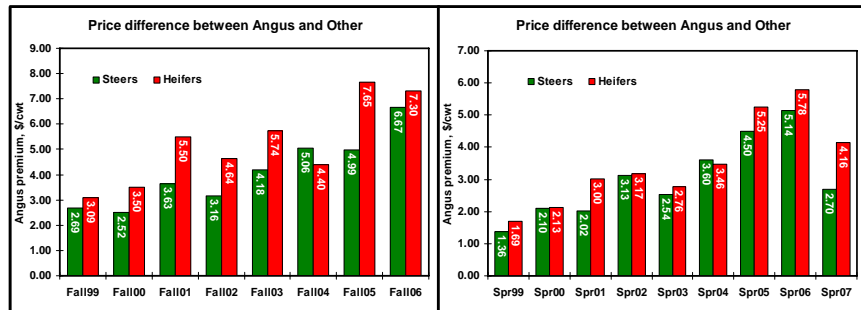
Participating states – CA, CO, IA, KS, KY, MO, MT, NE, NM, OK, SD, TX, WY (varies over time)

11,837 lots of cattle (260,515 head)

Higher average prices for Angus lots...



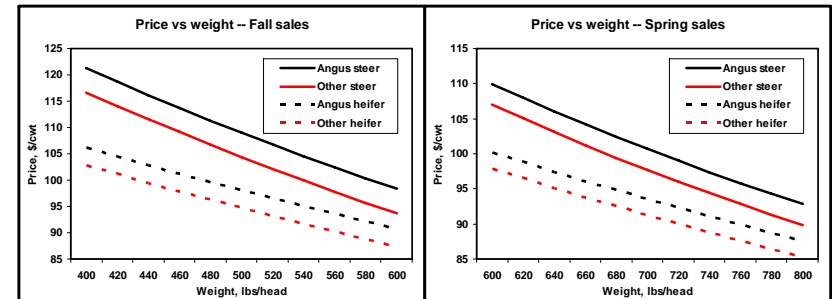
Difference between Angus and Other prices (\$/cwt) based upon average prices...



Fall

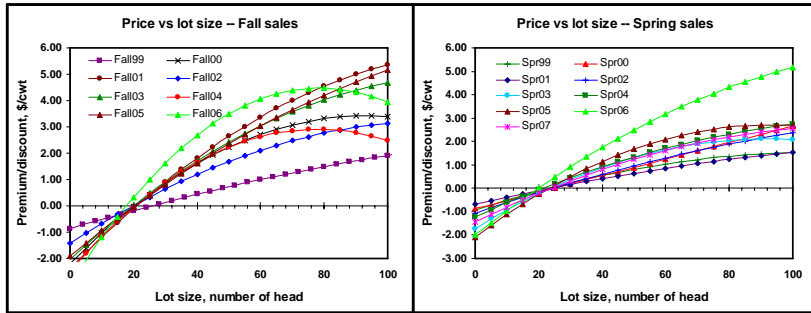
Spring

Weight matters...



If weight is not equal across cattle breeds/types, results based on averages will be biased...

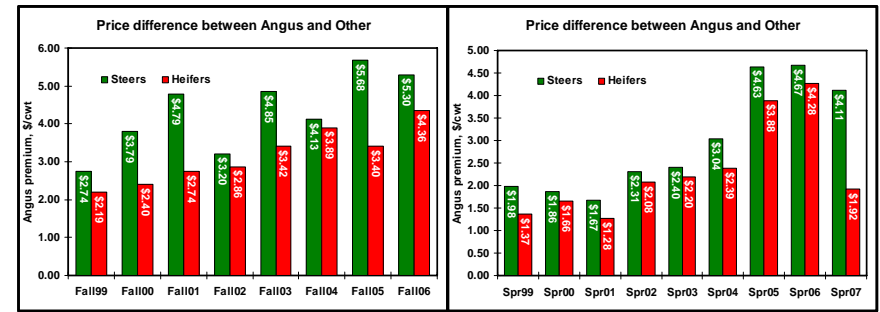
Lot size matters...



If lot size is not equal across cattle breeds/types, results based on averages will be biased...

49

Difference between Angus and Other prices (\$/cwt) based upon regression-based model prices...

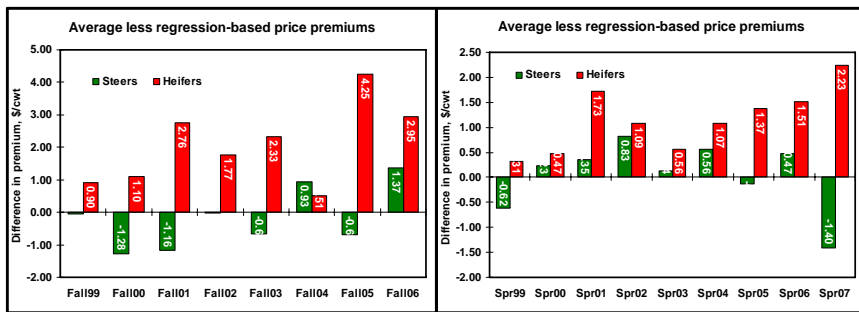


Fall

Spring

50

Difference in Angus premiums (\$/cwt) between average and regression-based prices...



Fall

Spring

51

Summary...

- Method of analysis can impact results and hence influence inferences/conclusions we make.
- Regarding premiums, biggest mistake typically made is failure to account for all factors influencing price. Unfortunately, data availability often precludes making ideal comparisons.
- Keep in mind economic principles when thinking about strategies for your businesses (i.e., what are your strengths, weaknesses, etc.).
- Because the beef industry is so diverse, there are numerous ways to be successful (i.e., everybody doesn't have to do things the same way).

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KSU-Vegetative Buffer Excel Tool
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