

Thriving in the
New Beef Economy

August 9, 2012
9AM - 5PM

Frick Auditorium, Mosier Hall
Kansas State University

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Cow-Calf Business: Outlook Overview, Drought Impacts, Structural Changes, and Implications

[Glynn Tonsor](#)

Dept. of Agricultural Economics
Kansas State University

Alternative live remote viewing sites:

Pratt County Fairgrounds
Butler County Community Building
Wakeeney Public Library
Parsons Frontier Farm Credit Office
Lucas Area Community Theater



Economic Outlook Overview: Cow-Calf Sector

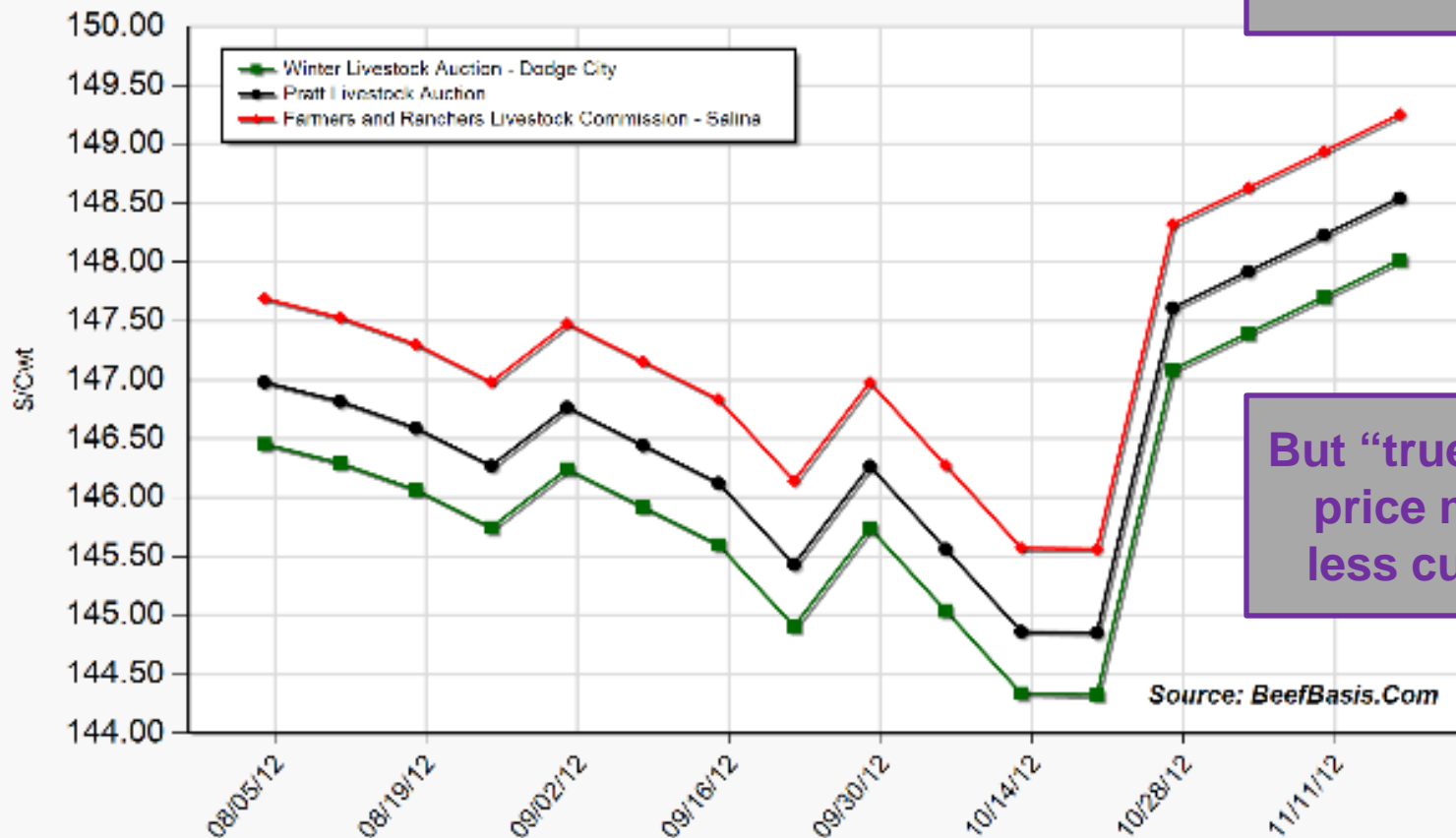
- Strong calf price pullback
 - National vs. regional drought has magnified cattle market impact compared to 2011
 - Pasture rather than corn uncertainty critical at this point...
- *Eventually*: return as beneficiary of tight supplies and probable expanded heifer retention...
- Returns over cash costs
 - 2012 estimates have fell \$100/cow in last 2 months
 - Will 2015 now be “the peak return year” ???
 - Likely a widening between top 1/3 and bottom 1/3 of producers ...



As of: 8/6/12

August FC:
8/3/12: \$139
6/3/12: \$158

Projected Price for 550 Lb Steer at Selected Kansas Auctions



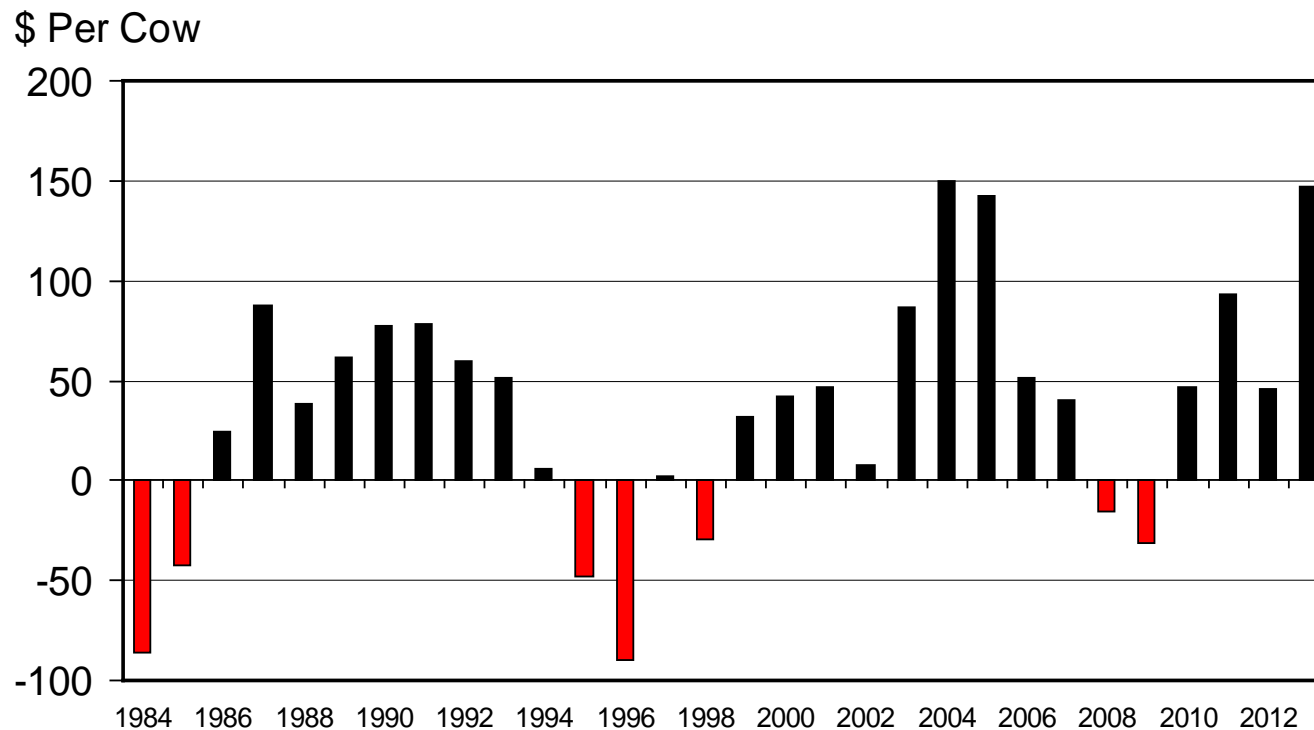
Source: BeefBasis.Com

But "true" expected price may be \$5 less currently ...



ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



Livestock Marketing Information Center

Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC

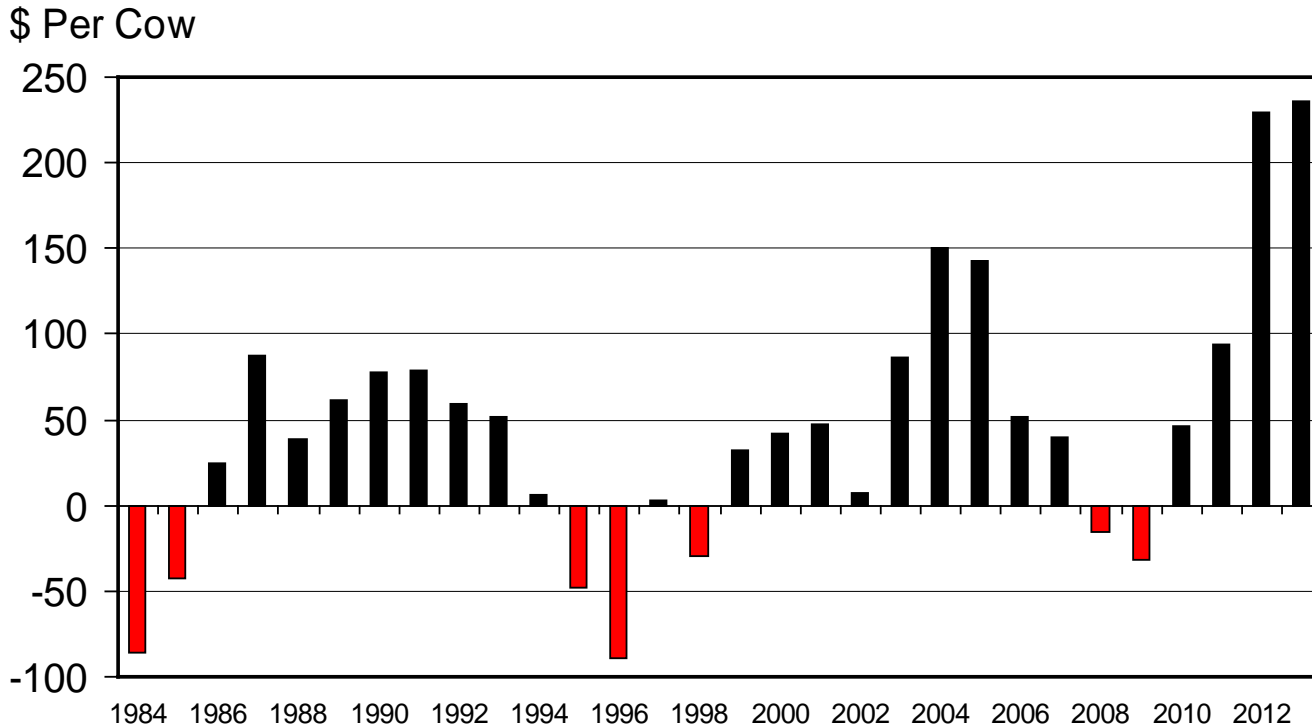
C-P-66

08/02/12



ESTIMATED AVERAGE COW CALF RETURNS

Returns Over Cash Cost (Includes Pasture Rent), Annual



Livestock Marketing Information Center

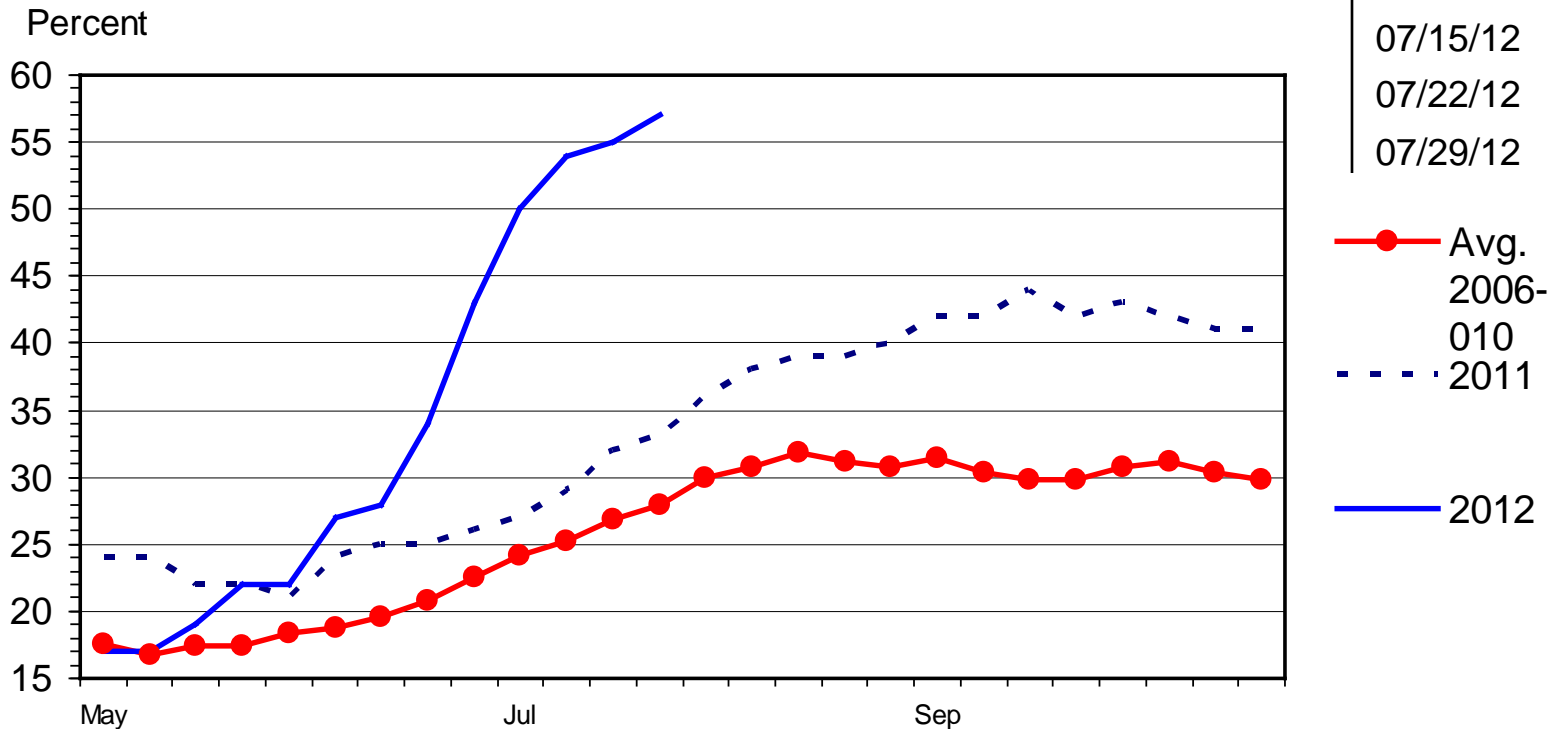
Data Source: USDA-AMS & USDA-NASS, Compiled & Analysis by LMIC

C-P-66
03/21/12



US RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



Beef Cows in states with 40% Poor to Very Poor

Last year	Cows	% of Total
07/17/11	12139	39.46%
07/24/11	10498	34.12%
07/31/11	12363	40.18%
This Year		
07/15/12	21940	73.62%
07/22/12	22809	76.54%
07/29/12	22809	76.54%

Livestock Marketing Information Center

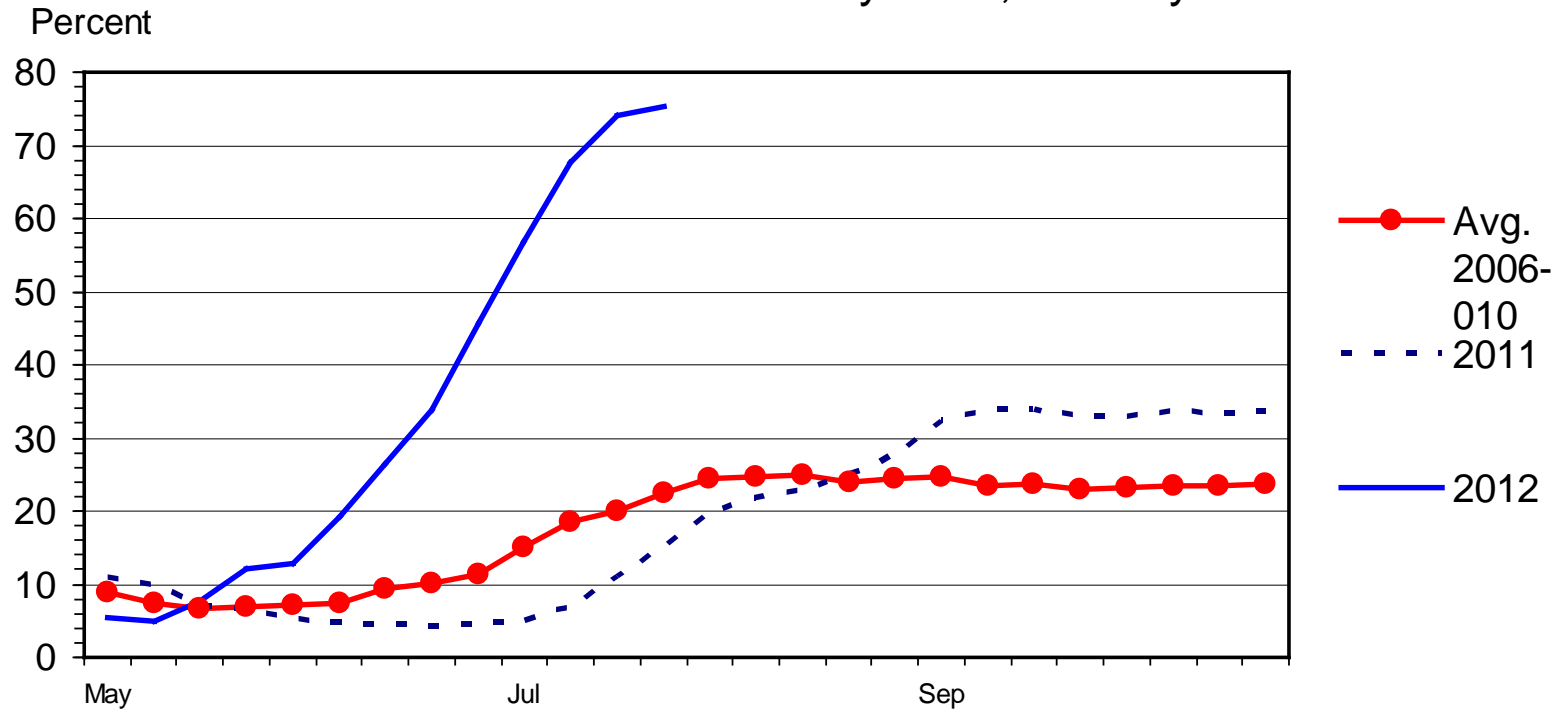
Data Source: USDA-NASS, Compiled & Analysis by LMIC

G-NP-30
07/30/12



IL, IN, IA, MI, MN,
MO, OH, & WI
14.5% of Cows
(2012)

CORNBELT REGION RANGE AND PASTURE CONDITION Percent Poor and Very Poor, Weekly



Livestock Marketing Information Center

Data Source: USDA-NASS, Compiled & Analysis by LMIC

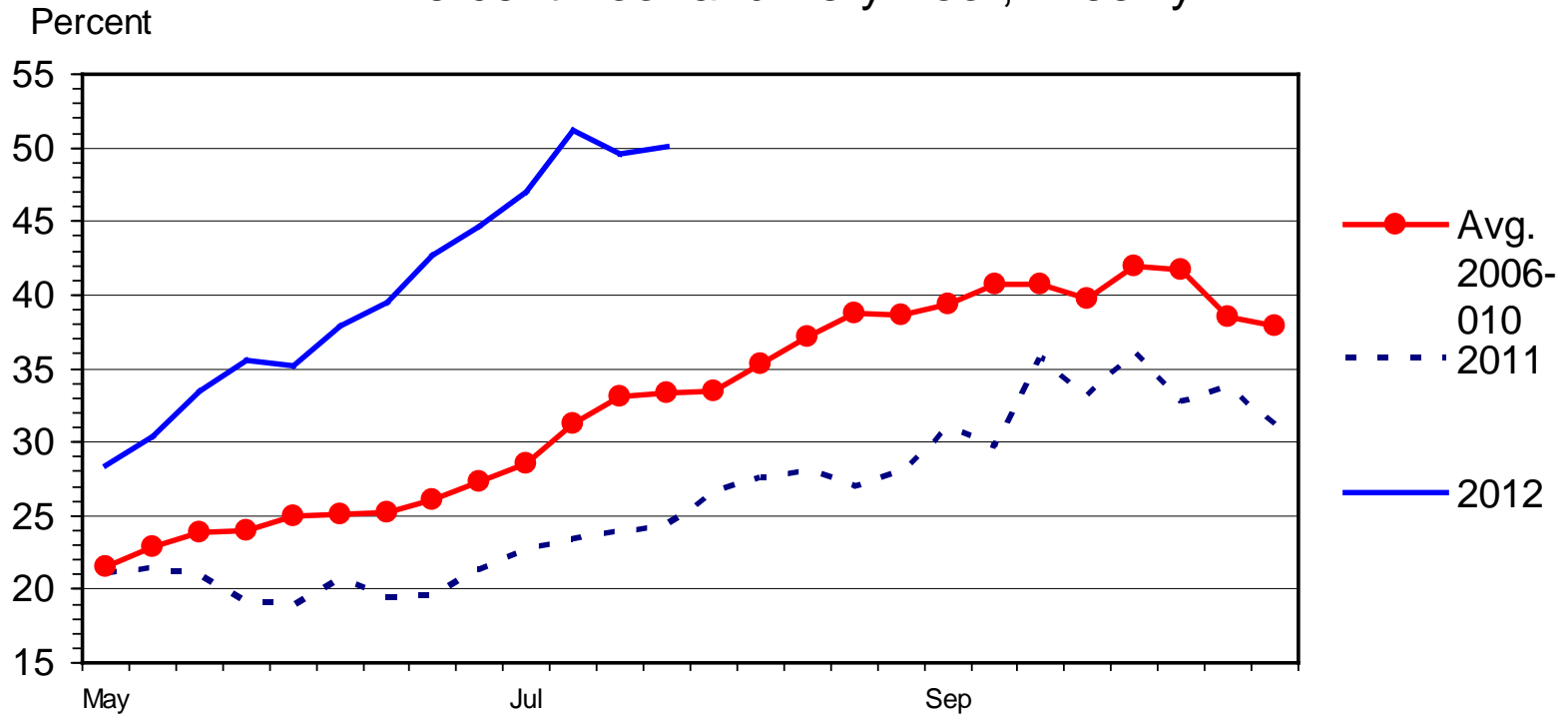
G-NP-34
07/30/12



AZ, CA, ID, NV, NM,
OR, UT, & WA
10.2% of Cows
(2012)

WESTERN REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



Livestock Marketing Information Center

Data Source: USDA-NASS, Compiled & Analysis by LMIC

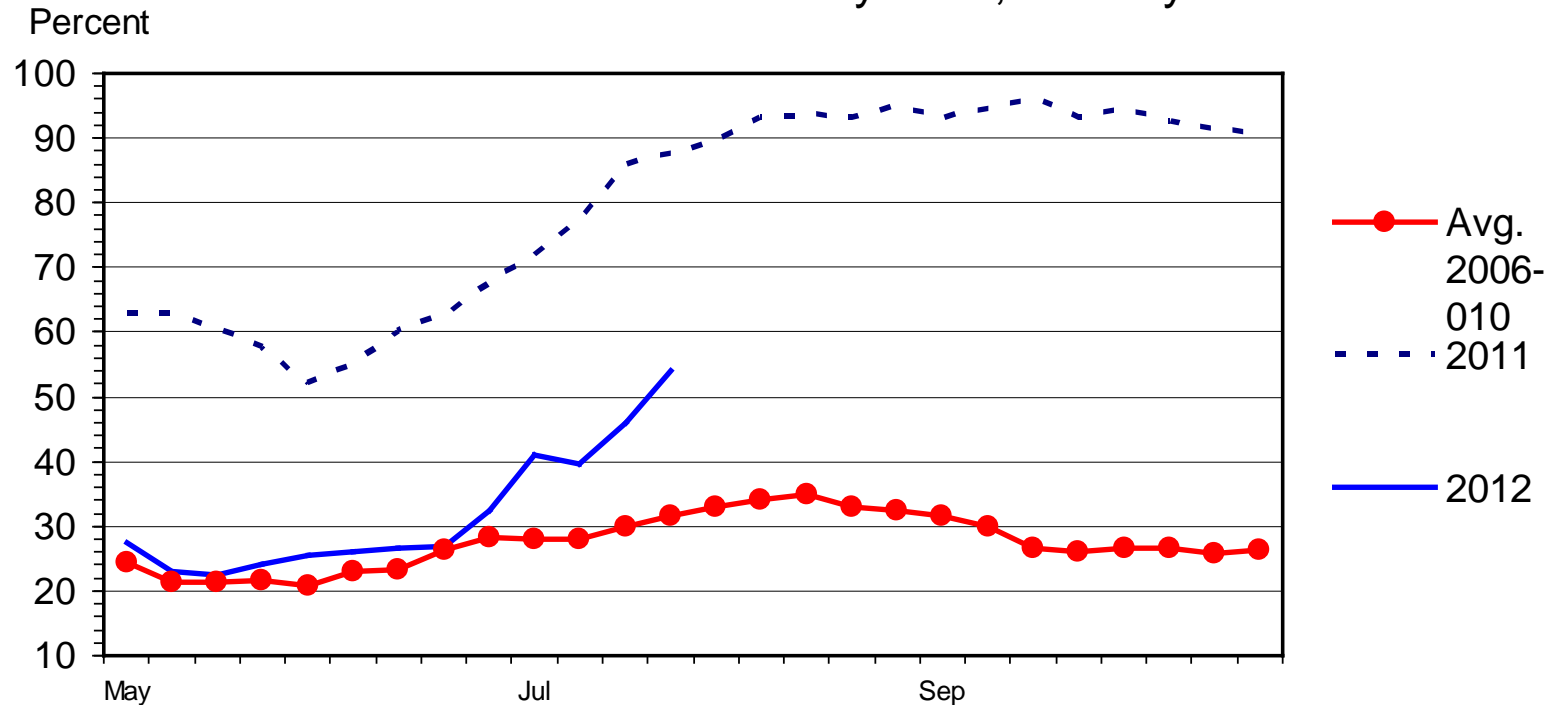
G-NP-31
07/30/12



OK & TX
20.4% of Cows
(2012)

SOUTHERN PLAINS REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



Livestock Marketing Information Center

Data Source: USDA-NASS, Compiled & Analysis by LMIC

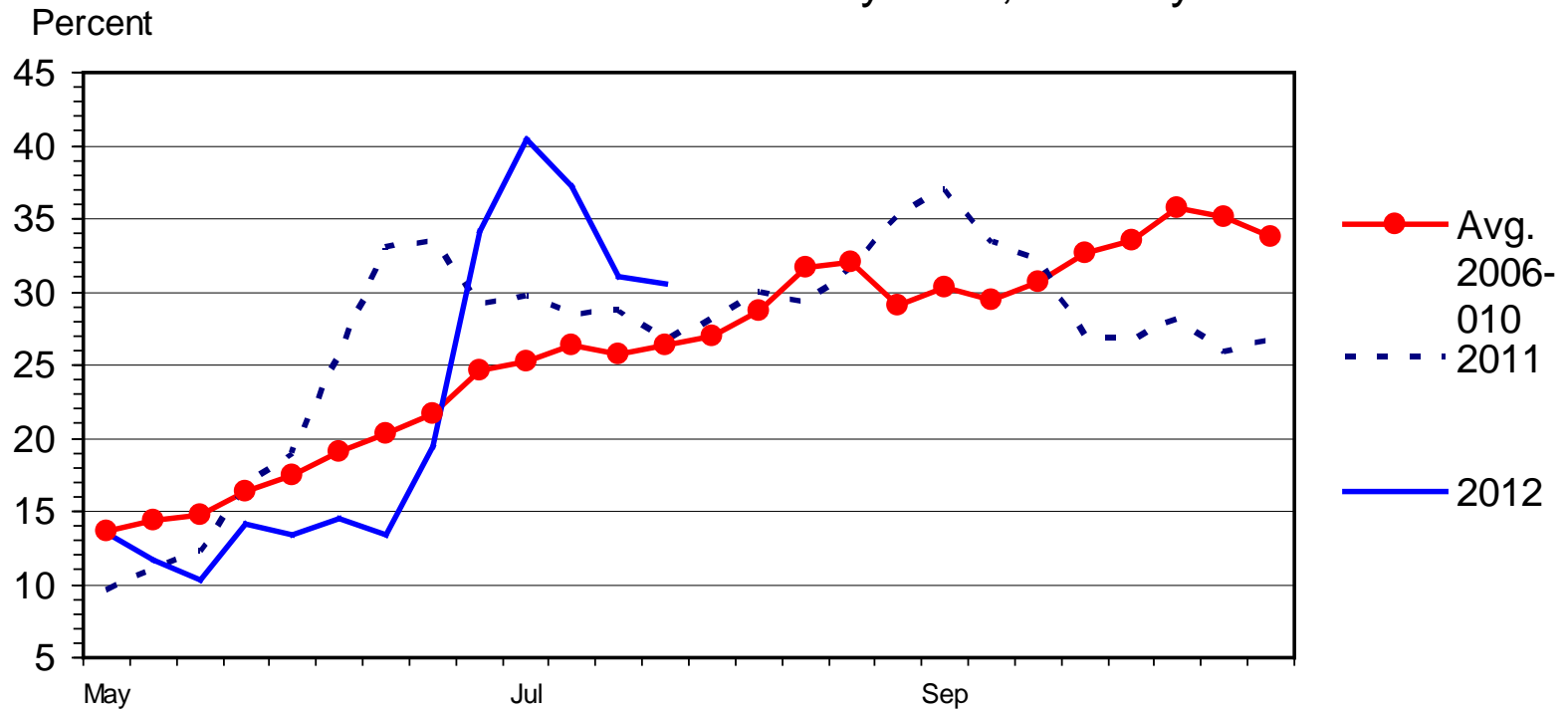
G-NP-33
07/30/12



AL, AR, FL, GA, KY,
 LA, MS, NC, SC, TN,
 VA, & WV
 24.5% of Cows (2012)

SOUTHEAST REGION RANGE AND PASTURE CONDITION

Percent Poor and Very Poor, Weekly



Livestock Marketing Information Center

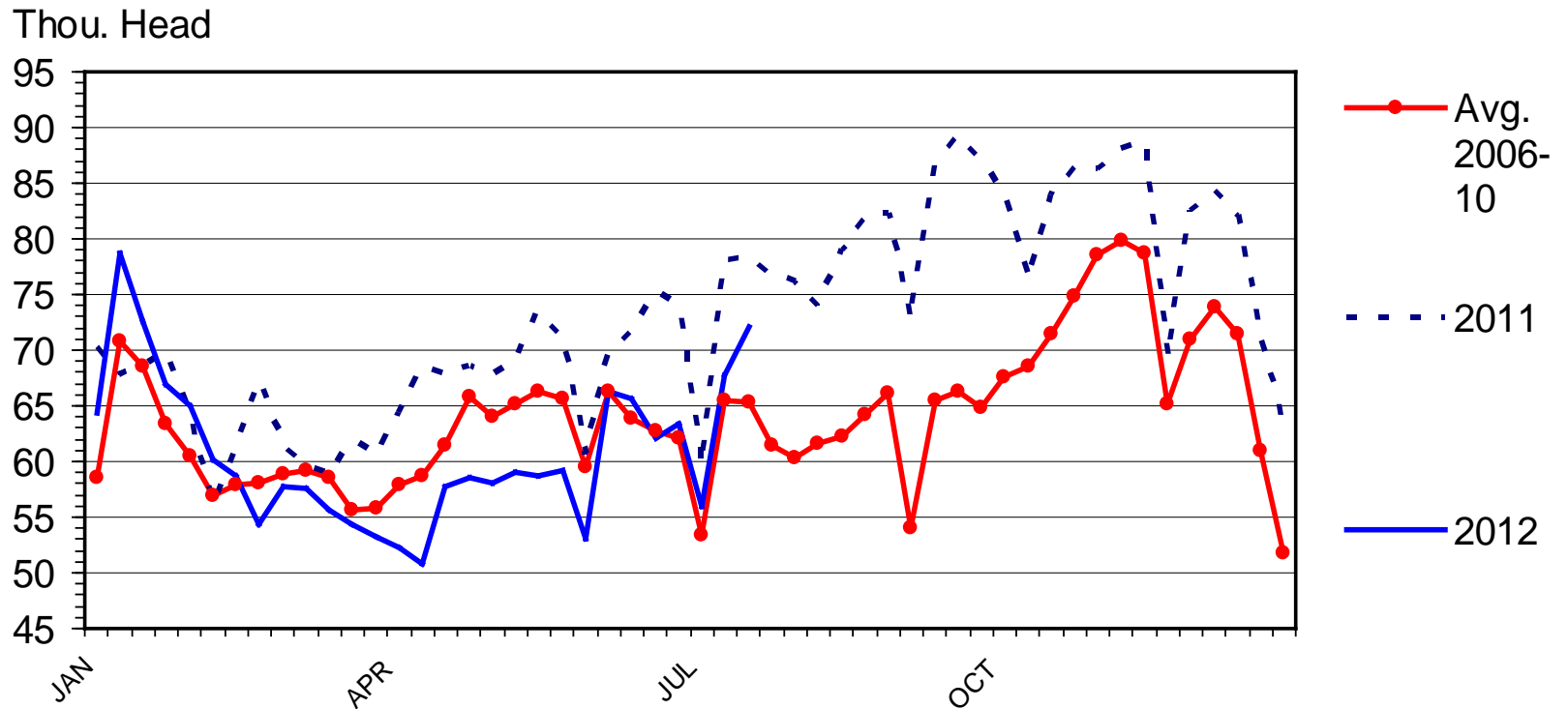
Data Source: USDA-NASS, Compiled & Analysis by LMIC

G-NP-36
 07/30/12



BEEF COW SLAUGHTER

Federally Inspected, Weekly



Livestock Marketing Information Center

Data Source: USDA-AMS & USDA-NASS

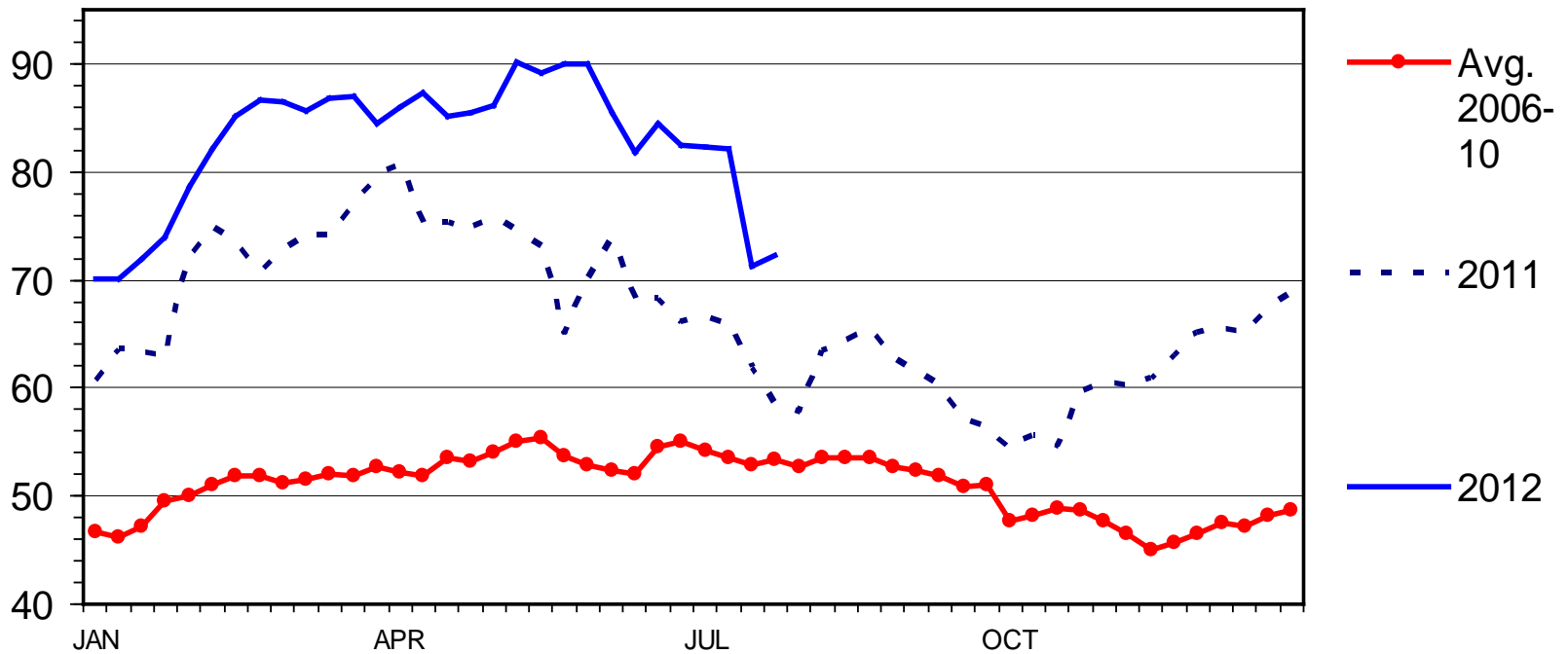
C-S-34
08/03/12



SLAUGHTER COW PRICES

Southern Plains, 85-90% Lean, Weekly

\$ Per Cwt.



Livestock Marketing Information Center

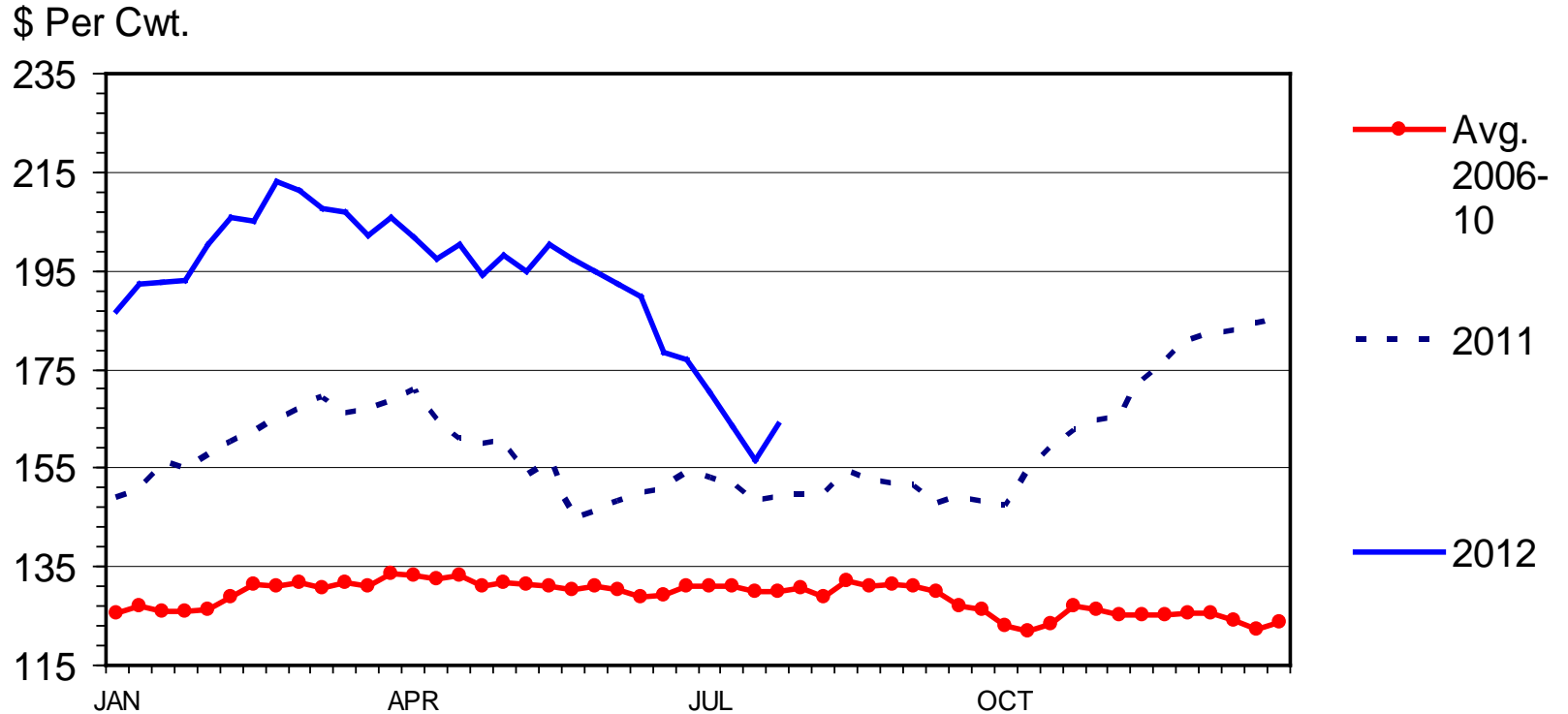
Data Source: USDA-AMS

C-P-35
07/30/12



MED. & LRG. #1 STEER CALF PRICES

400-500 Pounds, Southern Plains, Weekly



Livestock Marketing Information Center

Data Source: USDA-AMS, Compiled & Analysis by LMIC

C-P-49A
07/30/12



July 1 Cattle Inventory Report

- Report was eliminated and then reinstated for 2012; future is unknown ...
- Downsizing of herd continues (yr-on-yr changes)
 - Beef cows: -3% (900,000 hd)
 - Beef heifer replacements: 0% (was +1.4% in Jan.)
 - 2012 calf crop estimate: -2.3% (800,000 hd)
 - Feeder supplies outside feedlots: -3.2% (1.18 mil. Hd)



Reasons for Longer-Term Profitability Improvements...

- Excess Capacity: + for cow-calf producers
- Growing global demand for beef



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **“Developing World” Changes**
 - **Increasing global \$, pop., & per capita meat cons.**
 - **Africa & Middle East (4.4% GDP/yr)**
 - **Arguably the least understood growth market...**
 - **Latin America (4.2% GDP/yr)**
 - **Growing producer & consumer...**
 - **China (8.0% GDP/yr)**
 - **Canada has access but US does not ...**
 - **South Korea (3.7% GDP/yr – but 10x per capita inc. of China)**
 - **US has access but Canada does not...**



USDA's longer-term projections (as of Feb. 2012) ...

<http://www.ers.usda.gov/Publications/OCE121/>

- **“Developed World” Changes**
 - **Declining global economic prevalence, populations, & per capita meat consumption**
 - **US/Canada (2.5% GDP/yr)**
 - **Different dependence on domestic consumption...**
 - **Japan (1.0% GDP/yr):**
 - **Major meat importer currently but will exporters care less going forward?**
 - **Europe (1.9% GDP/yr):**
 - **Will influential role as “food thought leader” persist?**



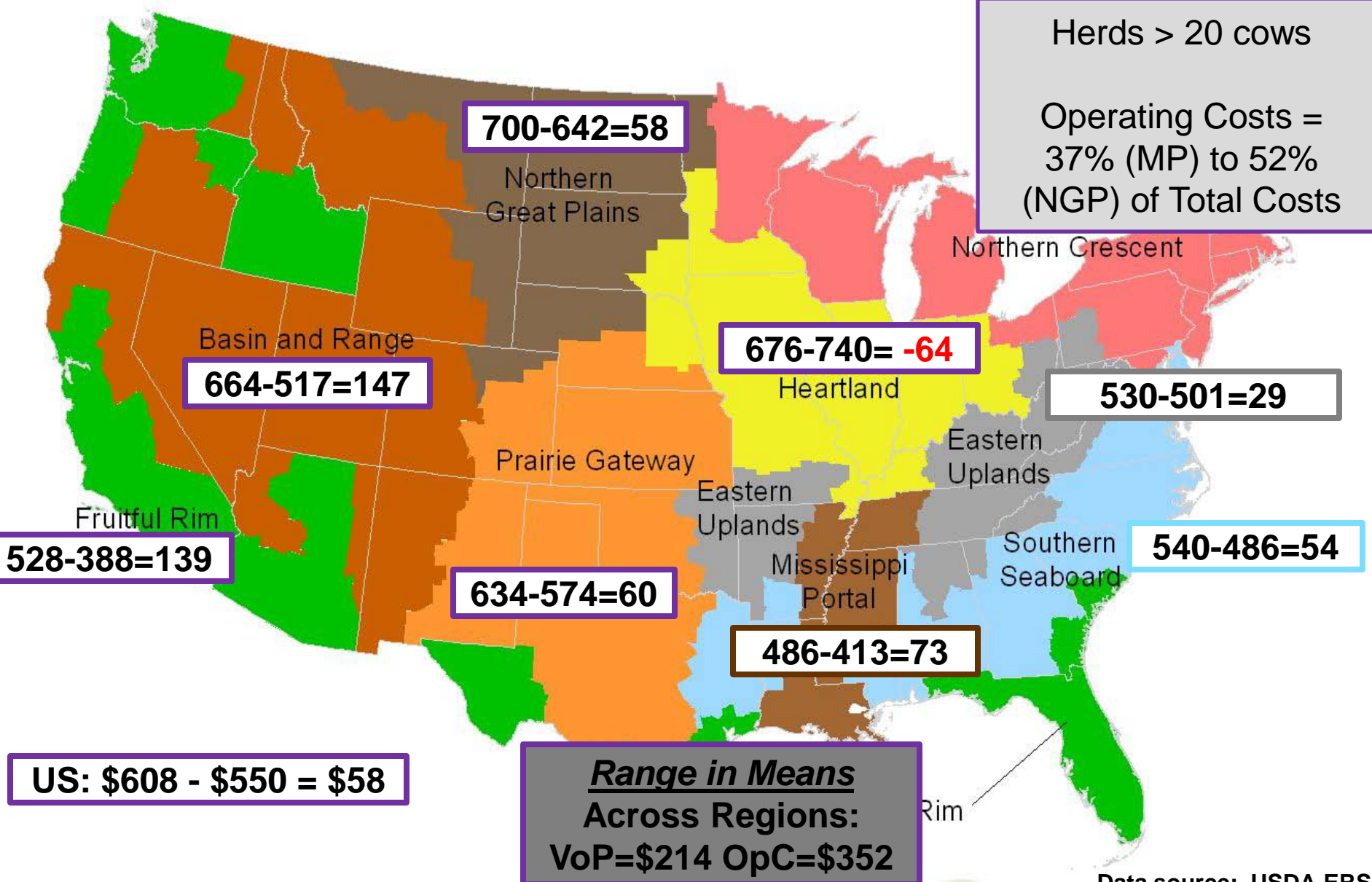
Who will produce beef in the future?

Identify COP Differences ...

- An industry of +/- 750,000 operations is going to be very diverse...
- Differences across regions are significant
- Differences within regions are significant



ERS 2011 (\$/cow): Value of Production LESS Operating Costs



Cow-calf profitability drivers...



- Analysis of KFMA cow-calf enterprise analysis returns
 - 1979-2010 all operations (examine time effect)
 - 2006-2010 operations with at least three years of data (examine producer effect)
- Paper available on web (www.agmanager.info)



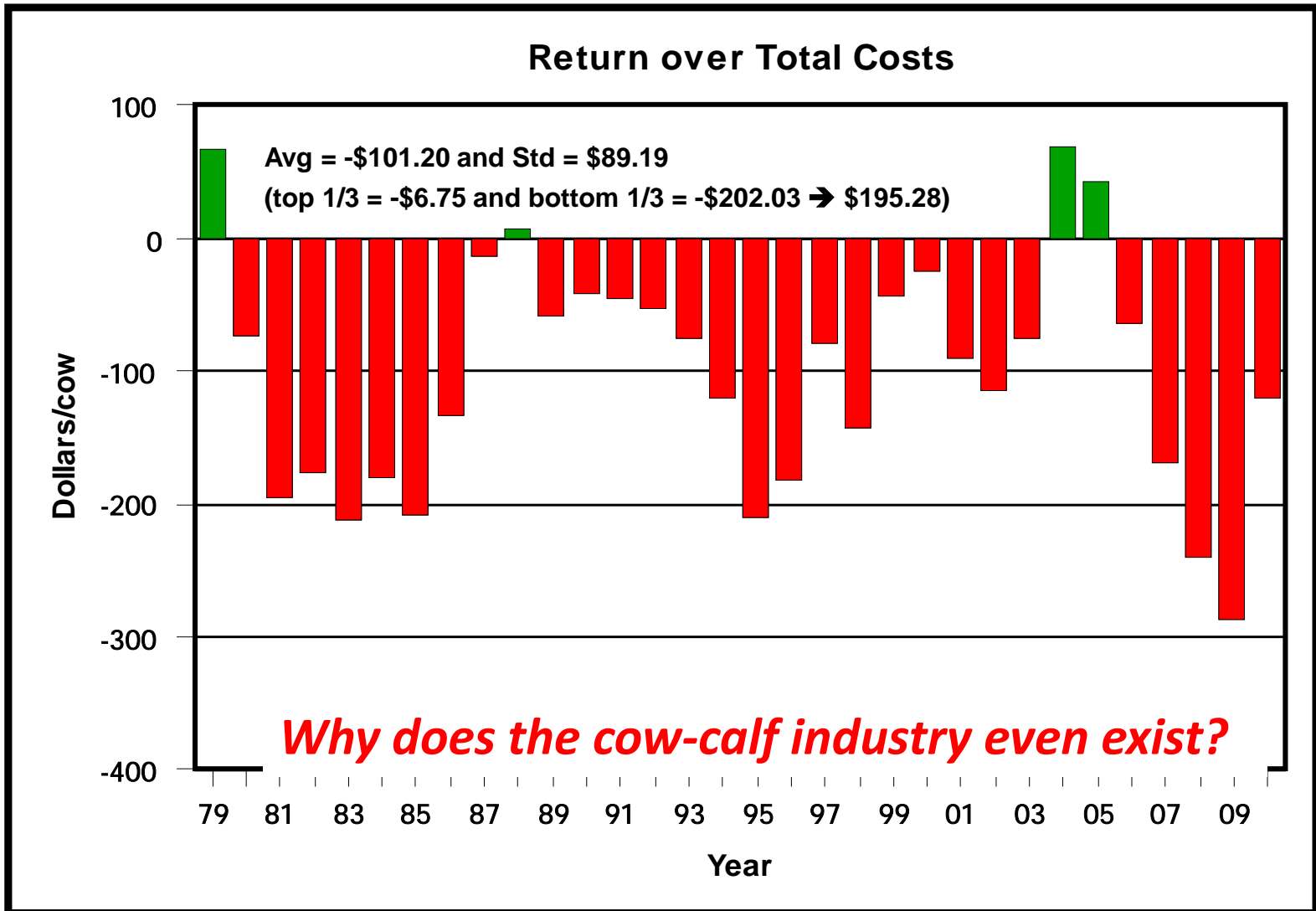
Differences Between High-, Medium-, and Low-Profit Producers:

An Analysis of the Kansas Farm Management Association
Beef Cow-Calf Enterprise

Kevin C. Dhuyvetter
Department of Agricultural Economics, Kansas State University
June 2011



KS average returns are highly variable over time...



Source: Kansas Farm Management Association (KFMA) Annual Enterprise Analysis Reports



Financial importance of U.S. cow-calf operation...

Contributions to Income and Labor Input

Reason	Percent of Operations				All
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	
Primary source of income	5.3	24.1	42.8	65.0	14.3
Supplemental source of income	78.0	68.3	50.9	31.7	71.9
Other	16.7	7.6	6.3	3.3	13.8

Source: USDA NASS APHIS, Beef 2007-08, NAHMS report.

An important characteristic of the U.S. beef cow-calf industry is that many participants are not motivated exclusively by profit from this enterprise ...



... and it shows in their management practices.

Castration					
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	All
Operations that castrated any bull calves before sale					
Percent of operations	50.3	75.0	85.1	95.3	59.2

Implanting Calves with a Growth Promotant Prior to or at Weaning					
Implant Practice	Percent of Operations				
	Herd Size (Number of Beef Cows)				
	1-49	50-99	100-199	200+	All
Any calves	7.0	19.9	27.3	31.1	11.9
Heifers intended for replacement	2.1	6.7	9.7	9.8	3.8
Other calves (nonreplacement)	6.7	19.7	25.2	30.8	11.4

Source: USDA APHIS, Beef 2007-08, Part I: Reference of the Beef Cow-calf Management Practices in the United States, 2007-08



Returns are more variable across producers...

Beef Cow-calf Enterprise, 2006-2010 (min of 3 years)*

	All Farms	Profit Category			Difference between High 1/3 and Low 1/3		
		High 1/3 Head / \$	Mid 1/3 Head / \$	Low 1/3 Head / \$	Absolute	%	
Number of Farms	88	29	30	29			
Labor allocated to livestock, %	36.9	47.3	32.0	31.5			
Number of Cows in Herd	134	187	131	85	103	121%	
Number of Calves Sold	122	173	118	77	96	126%	
Weight of Calves Sold	576	587	570	573	14	3%	
Calf Sales Price / Cwt	\$105.99	\$107.19	\$105.07	\$105.73	\$1.46	1%	
Gross Income	\$517.70	\$561.41	\$525.20	\$466.24	\$95.16	20%	
Feed	\$353.91	\$306.48	\$361.24	\$393.76	27.6% -\$87.28	-22%	34.9%
Interest	\$123.81	\$106.20	\$124.66	\$140.53	-\$34.33	-24%	13.7%
Vet Medicine / Drugs	\$18.99	\$18.25	\$17.92	\$20.84	-\$2.60	-12%	1.0%
Livestock Marketing / Breeding	\$13.01	\$10.86	\$13.24	\$14.93	-\$4.07	-27%	1.6%
Depreciation	\$34.39	\$25.53	\$33.96	\$43.71	-\$18.18	-42%	7.3%
Machinery	\$71.05	\$56.93	\$72.72	\$83.46	-\$26.54	-32%	10.6%
Labor	\$107.81	\$86.28	\$91.21	\$146.52	72.4% -\$60.24	-41%	24.1%
Other	\$36.20	\$25.87	\$40.22	\$42.38	-\$16.50	-39%	6.6%
Total Cost	\$759.19	\$636.40	\$755.16	\$886.14	-\$249.74	-28%	
Net Return to Management	-\$241.48	-\$74.99	-\$229.97	-\$419.89	\$344.90		

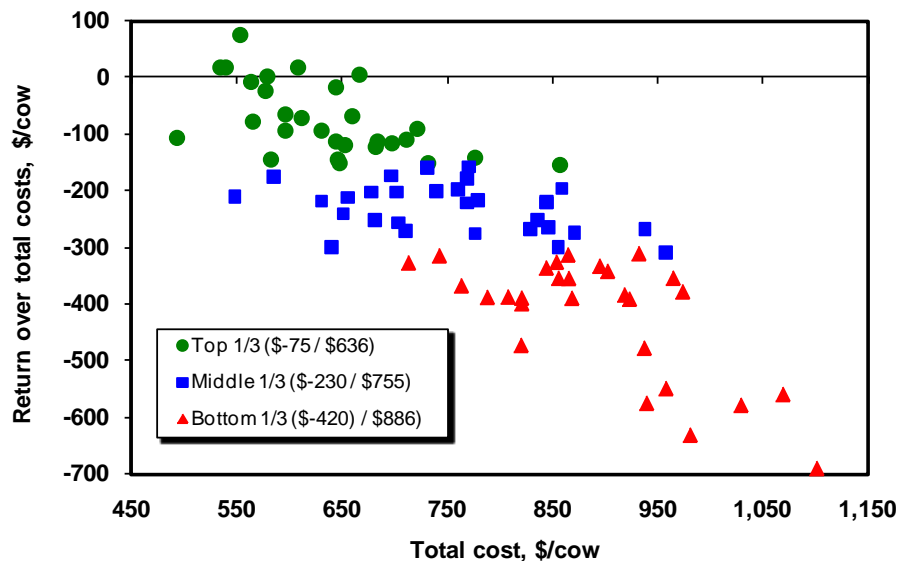
* Sorted by Net Return to Management (Returns over Total Costs) per Cow

Compared to \$195 between top and bottom third years.

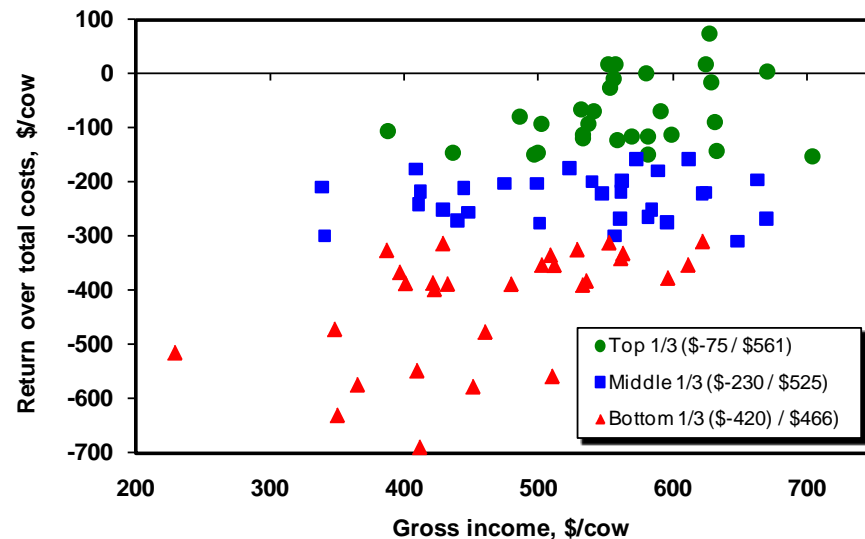
KS cow-calf profitability drivers...

- Returns are more variable across producers at a point in time than they are on average over time
 - even in “hard times” some producers are profitable;
 - similarly, in “good times” some producers lose money...
- Cost differences explain a bigger portion of profitability differences across producers than does income differences

Profitability vs. total cost ($r=-0.82$)



Profitability vs. gross income ($r=0.52$)



Who will produce beef in the future?

Identify Fit with Broader Structural Changes...

- Increasing Variation Across Producers
- Role of “cattle cycle” is less pronounced today
- Excess Capacity: + for cow-calf producers
- Moving, perhaps too slowly, away from “all beef is equal” systems...
 - Dropping % fed cattle sold via negotiated cash
 - Increasing role of premiums w/ eventual ties back to cow-calf producers...
 - *Make sure you aren't producing widgets nobody wants...*



Bottom-line Summary for Cow-Calf Producers

- New normal includes heightened uncertainty and volatility
 - Signals opportunity to many = expansion
 - Triggers discomfort to many = exit/status quo
 - within industry variations in views and comparative advantages will determine the ability to profit and shape future of industry...
- Industry is dynamic = “keep up or get out”
 - Export growth = reduced domestic per capita consumption, changing customer base ...
 - Increasing demand for “higher quality” for consumers worldwide to justify higher costs of consumed protein...



What To Do?

- Does “on average higher returns are associated with higher risk” resonate w/ you?
- What is your comparative advantage?
 - Being in top 1/3 of cost structure is imperative...
 - Increase herd?, Change focus?; Exit?
- I encourage you to:
 - Recognize this “isn’t your father’s world” anymore and manage accordingly...
 - “Think globally, manage locally, and stay informed”



More information available at:



This presentation is available in PDF format at:

<http://www.agmanager.info/about/contributors/individual/tonsor.asp>

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About AgManager.info

AgManager.info website is a comprehensive source of information, analysis, and decision-making tools for agricultural producers, agribusinesses, and others. The site serves as a clearinghouse for applied outreach information emanating from the Department of Agricultural Economics at Kansas State University. It was created by combining departmental and faculty sites as well as creating new features exclusive to the AgManager.info site. The goal of this coordination is to improve the organization of web-based material and allow greater access for agricultural producers and other clientele.



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K-State Decision Aides: Cattle Price Oriented

(<http://www.agmanager.info/Tools/default.asp>)

- Expectations on Future Cash Prices
 - <http://www.beefbasis.com/>
- Examine Feeder Cattle Risk Management Alternatives
 - *“K-State Feeder Cattle Risk Management Tool”*
- Project Premium/Discount of Calf/Steer Attributes
 - *“K-State Feeder Cattle Price Analyzer”*
- Stocker Breakeven Selling/Purchasing Prices
 - *“Cattle Breakeven Selling and Purchase Prices”*



Other K-State Decision Aides

(<http://www.agmanager.info/Tools/default.asp>)

- NPV of Beef Replacements
 - *“KSU-Beef Replacements”*
- Beef Cow Lease Agreements
 - *“KSU-CowLease”*
- Determining Flint Hills Pasture Rents
 - *“KSU-Graze.xls”*





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WEBINAR
Beef-Cattle Economics

Beef-Cattle Economics webinar series

Series of quarterly webinars on beef-cattle markets and other industry-related issues.

2012 schedule (all webinars begin at 1:30 CST)

February 7

May 1

August 7

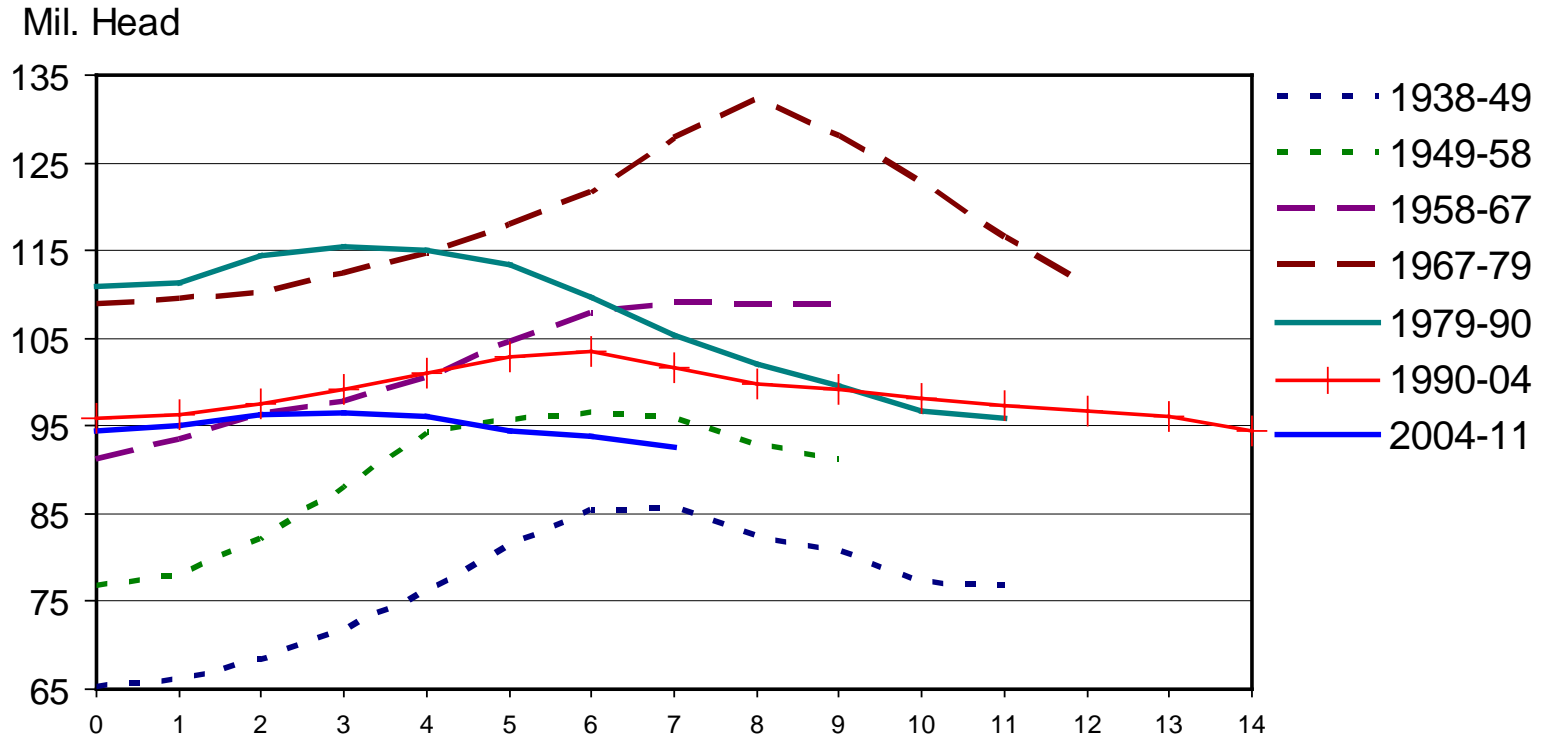
November 6

For details about specific topics and registering for webinars see additional information on AgManager.info AND <http://www.meatingplace.com/Industry/Webinars>



How relevant is assessing today's "cattle cycle" ???

TOTAL CATTLE INVENTORY BY CYCLE U.S., January 1



Livestock Marketing Information Center

Data Source: USDA-NASS, Compiled & Analysis by LMIC

C-N-40
07/22/11

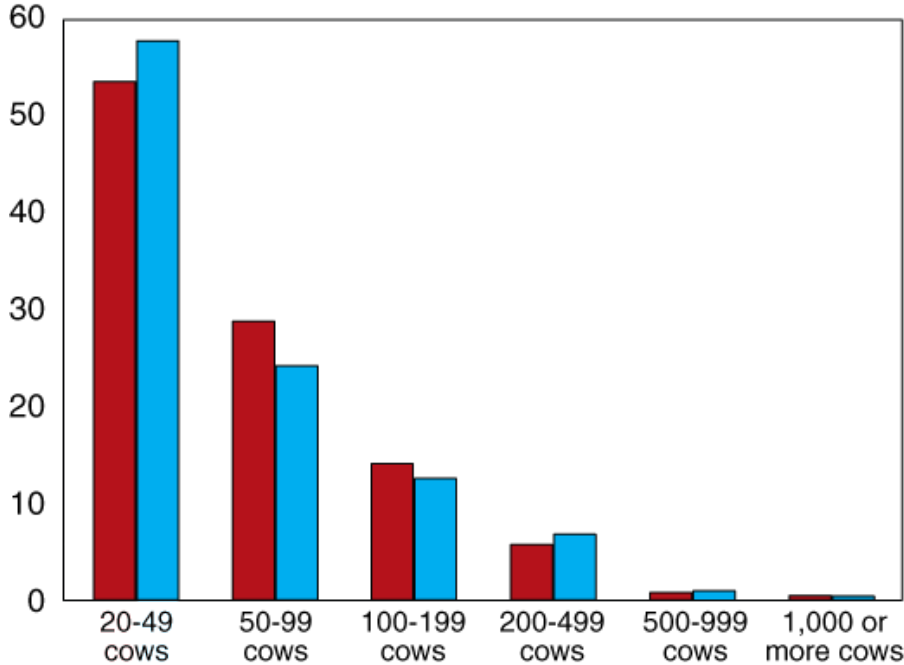


Figure 2

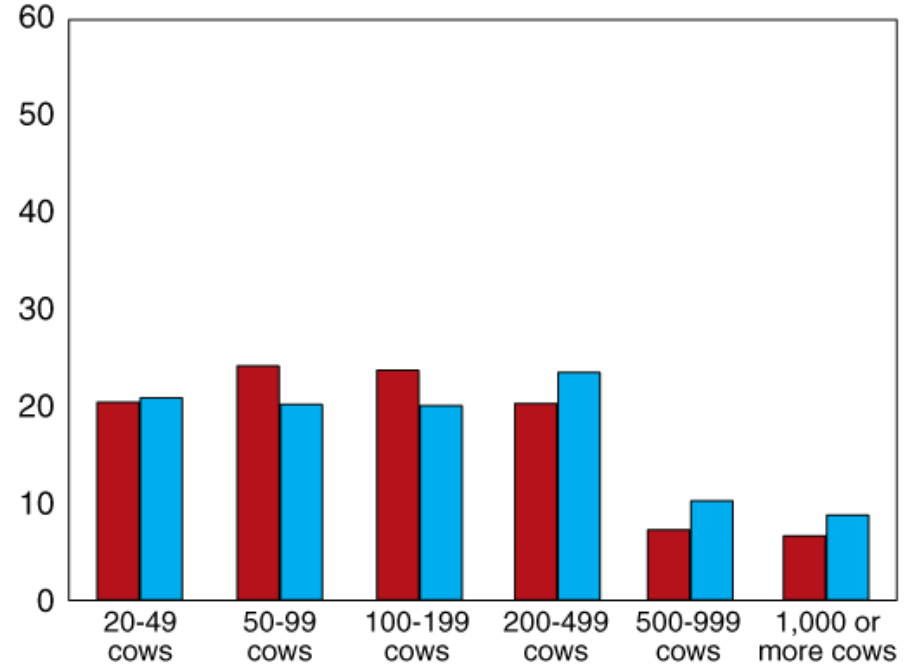
Survey coverage of U.S. beef cow-calf farms and inventory by size of operation, 2008

The expanded ARMS sample of farms with 20 or more beef cows and the ARMS beef cow inventory are distributed similarly across identical size categories of the 2007 Census of Agriculture.

Percent of farms



Percent of inventory



2008 ARMS

2007 Census of Agriculture

Notes: The 2007 Census of Agriculture measured beef cow inventory on December 31, 2007. The ARMS beef cow inventory is that on January 1, 2008. Differences between the estimates are primarily due to fewer States included in ARMS, and the sampling and nonsampling error of ARMS. Limiting ARMS to operations with 20 or more beef cows omitted about 53 percent of farms with beef cows and 10 percent of the beef cow inventory reported in the 2007 Census of Agriculture.

Source: USDA, Economic Research Service using 2007 Census of Agriculture; and USDA's 2008 Agricultural Resource Management Survey (ARMS).

U.S. Cow-Calf Industry: Size Differences...

(March '11 ERS Report: <http://www.ers.usda.gov/publications/eib73/>)

	20-49 cows	50-99 cows	100-249 cows	250-499 cows	500 or more cows
Percent of farms/beef cows	41/13	32/21	21/31	5/15	2/20
Beef cows—average per farm	29	54	116	260	640
Weaning weight (lbs)	494	493	523	538	522
Sold at weaning (%)	63	62	51	49	39
Backgrounded then sold (%)	31	35	43	45	55
Retained until slaughter (%)	6	3	6	6	6
Percent using public grazing land	1	3	8	24	29
Operator:					
Age (percent greater than age 65)	38	40	32	30	22
Completed college (percent)	23	26	27	37	42
Off-farm occupation (percent)	47	37	21	18	10
Exit within 5 years (percent)	26	26	17	10	7

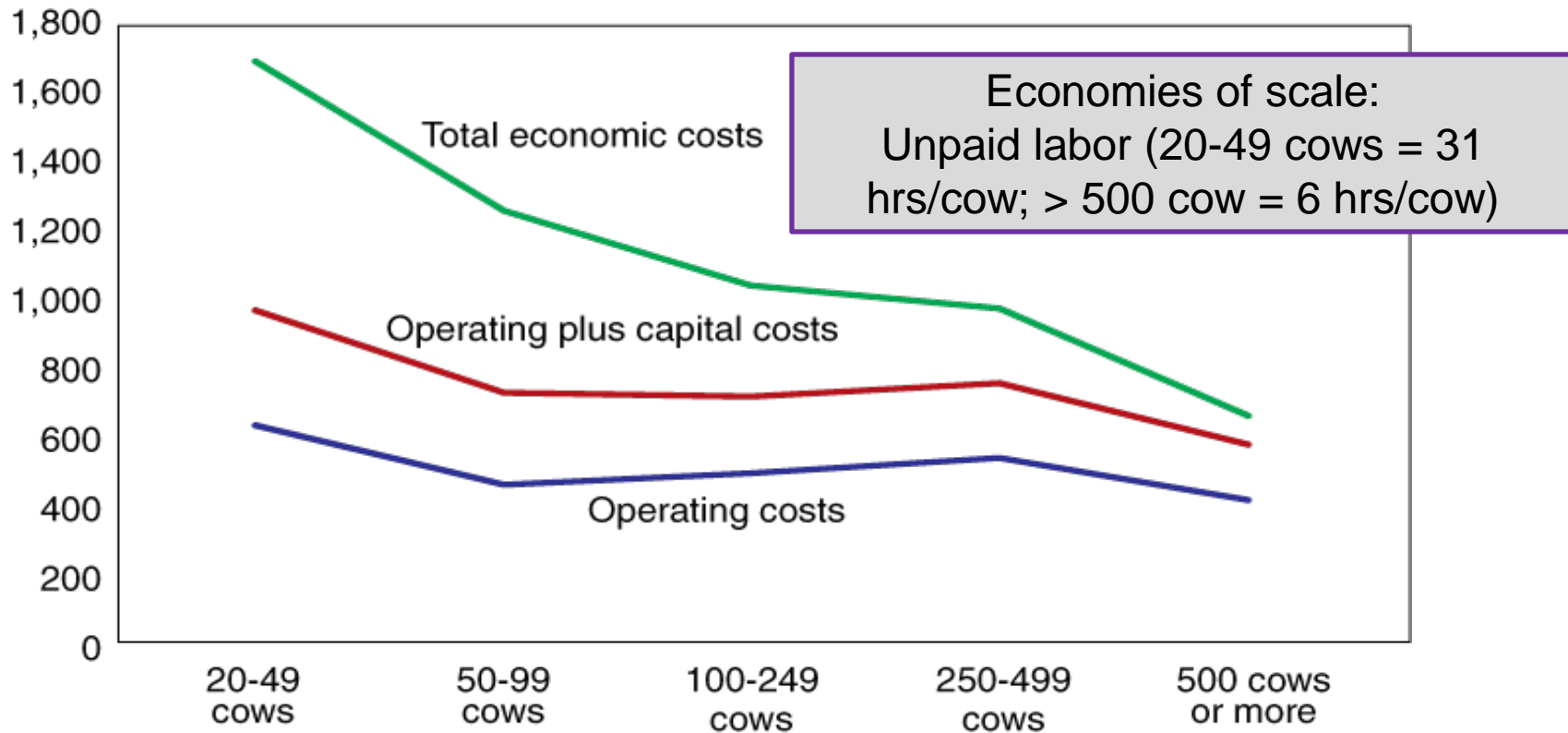


Figure 6

Beef cow-calf cost of production per cow by size, 2008

Economies of size are apparent in beef cow-calf production, particularly for total economic costs.

Dollars per cow



Notes: Production cost estimates for operations with less than 20 beef cows are not available because the ARMS sample is limited to operations with 20 or more beef cows. The number of cows refers to the peak number on the operation at any time during 2008.

Source: USDA, Economic Research Service using USDA's 2008 Agricultural Resource Management Survey (ARMS).



More information available at:
AgManager (<http://www.agmanager.info/>)

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