

LattaHarris, LLP
Pork Production,
Cost of Production & Benchmarking
Standards Report

13th Annual Report
Presented by: John McNutt

LH Pork Industry Team

Consulting – Tax – Audit – Management Information

Tipton Office

Mark Penningroth, CPA

Jim Jorgensen, CPA

John McNutt, MBA

Mitch Richman, Manager

Jim Reeve, Manager

Bob Krogmeier, CPA

Dave Borne, CPA

Renee Virlee, CPA

Susan Hotchkin, CPA

Washington Office

Grant Wubbena, CPA

Philip Morris, CPA

Dave Black, CPA

Tyler Friese, Accountant

Grundy Center Office

Blaine Moats, CPA

Mackenzie Sprain, CPA

Chad Cramer, CPA

Iowa City Office

Danny Stafford, CPA

Greg Reiman, CPA

LH Benchmarks & Comparative – What it is and What it is Not

- Is a confidential peer group
- Is not a contest – no bragging rights
- Is managerial accounting
 - Is information that managers can use to make decisions
 - How competitive are we
 - Where do we look to make improvement
- Is not perfect, includes estimates and assumptions, (90% of the way is better than 100% of nothing achieved)

Participation in LH Comparative Report - Requirements

- Accrual financial information by stage of growth, production data provided
- Full access by LH staff to needed information
- Grant Permission
- Participants from 5 states

LH 2015 Benchmark Process

- Summer 2016 - define estimated benchmark for the year 2015
 - Based on prior year and actual and estimated feed prices for SE Iowa,
 - Weekly quotes
 - Feedstuff reported prices and local elevator
 - Apply an estimated purchasing efficiency
 - example: 95% of average weekly posted price for wean to finish*
- Review sales data for market hogs and market sows
 - Market weights, genetic costs adjustments
- Review data base

Process - continued

- August Review of First Draft of 2015 Benchmarks
 - Internal LH staff
 - Consult with Industry Experts
- Compare benchmarks with client's accrual data
- Refine benchmarks based on observed data
 - 50th & 90th percentile, do they make sense.
- Late summer meeting

Y/E 12/31/15 ESTIMATED Benchmarks - 50th & 90th Percentile Final

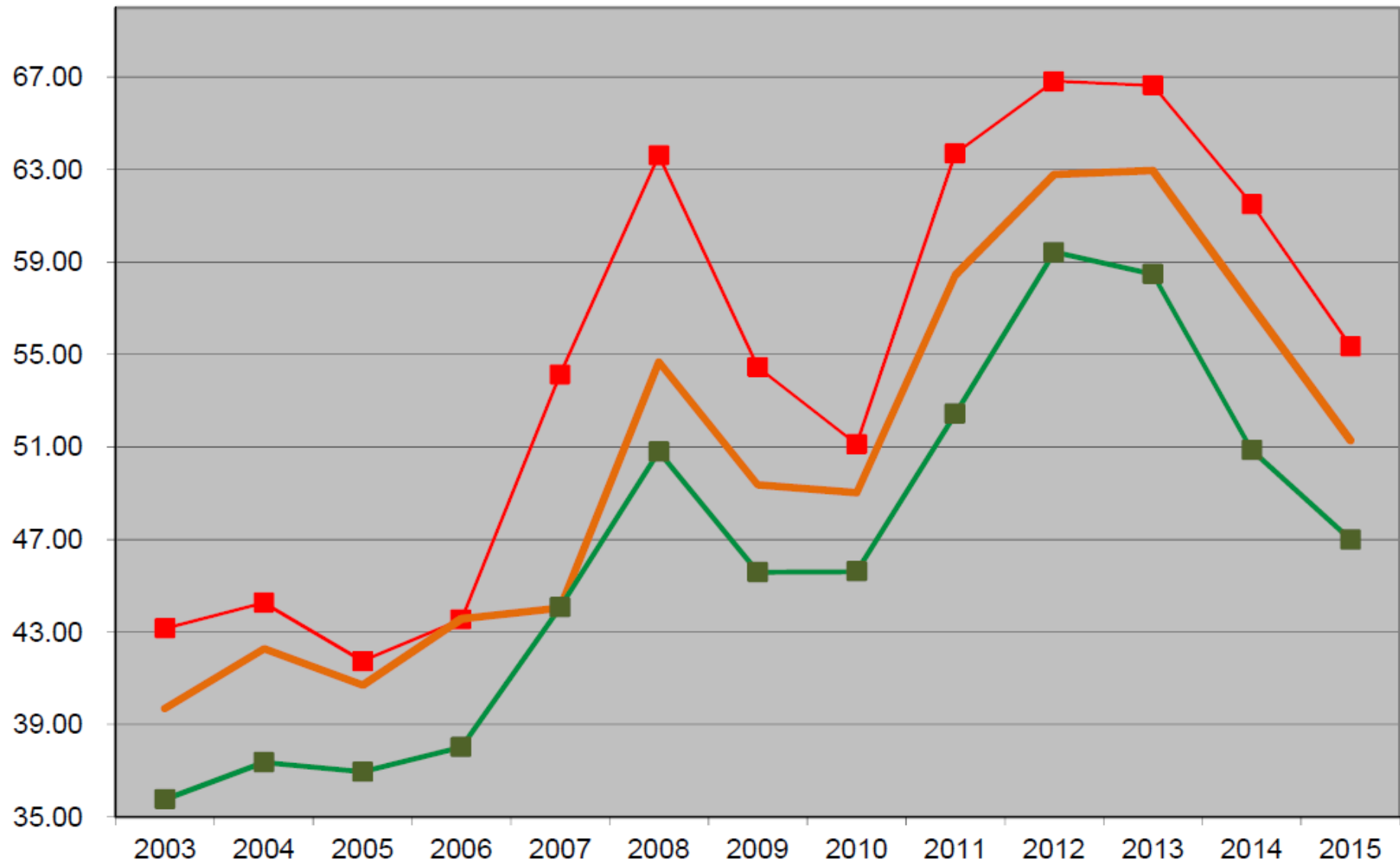
	Breed to Wean		Wean to Finish		Whole Herd	
	<i>\$/pig Weaned</i>	<i>\$/pig Weaned</i>	<i>\$/cwt Produced</i>	<i>\$/cwt Produced</i>	<i>\$/cwt Sold</i>	<i>\$/cwt Sold</i>
<i>CWT Gain - CWT Sold</i>			2.67	2.67	2.80	2.80
<i>Cost to Produce Wean Pig</i>			<i>Cost to Add Gain Per Cwt of Gain, W-F</i>		<i>Total Cost / Pig to Market Per Cwt of Pork Sold</i>	
	50th Percentile	90th Percentile	50th Percentile	90th Percentile	50th Percentile	90th Percentile
Labor	\$ 7.01	\$ 5.85	\$ 2.98	\$ 2.66	\$ 5.47	\$ 4.70
Facilities	6.58	5.20	4.76	4.23	7.02	5.97
Other Expenses	2.41	1.50	1.51	1.25	2.34	1.75
Subtotal cost normally borne by contractor	16.00	12.55	9.25	8.14	14.83	12.42
Feed cost	15.23	13.02	28.88	26.79	33.25	30.39
Genetics	4.75	2.75			1.78	1.02
Vet/Med	5.42	3.55	1.59	1.15	3.56	2.41
General and Administrative	1.45	0.90	0.97	0.35	1.47	0.67
Interest Expense - non facility	0.20	-	0.42	0.07	0.47	0.07
Estimated 12 Months Ending 12/31/15	\$ 43.05	\$ 32.77	\$ 41.11	\$ 36.50	\$ 55.36	\$ 46.98
Breakeven Carcass Price Needed @ 75% Yield, y/e 12/31/15					\$ 73.81	\$ 62.64

Adjustment for Year End - Due to Change in Corn & SBM Prices

Average Estimated Corn Cost \$ 3.67 / Bu, decrease by \$.57/bu. from the 2014 cost of \$4.24/bu.

Average Estimated Bean Meal \$ 331/ Ton Down by \$143/ton from the 2014 cost of \$474/ton

Benchmark Cost - Farrow to Finish 13 Year History



How the Benchmarks Add Up,

90th Percentile Example

Cost of weaned pig @ 13 lbs.

$$= \$32.77 / (1 - \text{death loss, } 4\%)$$

$$= \$32.77 / .96 = \underline{\underline{\$34.14}}$$

Cost of Gain

Market Weight 280 pounds

280 - 13 = 267 pounds of gain

267 / 100 = 2.67 CWT. of Gain

$$= \$36.50 * 2.67 = \underline{\underline{\$97.45}}$$

Cost of a weaned pig sold

$$\$34.14 + \text{Cost of Gain } \$97.45$$

$$= \underline{\underline{\$131.59}}$$

Divided by CWT. sold

$$280 / 100 = 2.80 \text{ CWT. Sold}$$

$$\$131.59 / 2.80$$

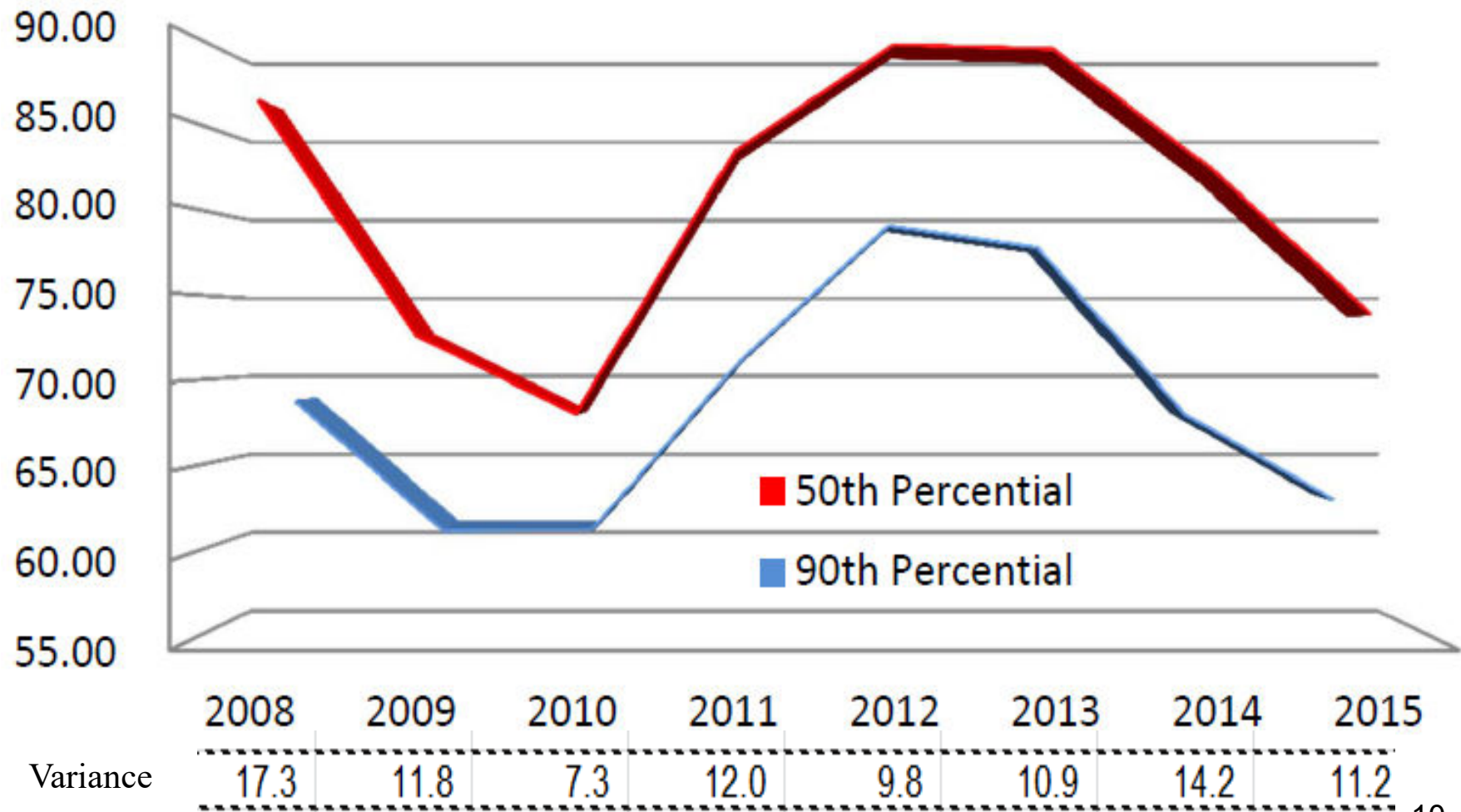
$$= \underline{\underline{\sim \$46.98}}$$

Cost/CWT. Pork Sold

90th percentile

Rate of Change 50th & 90th Percentile

Breakeven Carcass Price



2015 Benchmark Observations

Comparing 2015 to 2014

- ➔ Breed to Wean Cost per Pig Weaned 107% & 103% respectively
 - ➔ 50th Percentile Cost per Pig Weaned up \$ 2.70 to \$ 43.05
 - ➔ 90th Percentile Cost per Pig Weaned up \$ 0.96 to \$ 32.77

- ➔ Wean to Finish Cost per Cwt. of Gain 85% & 89% respectively
 - ➔ 50th Percentile Cost per Cwt. of Gain down \$ 7.50 to \$ 41.11
 - ➔ 90th Percentile Cost per Cwt. of Gain down \$ 4.42 to \$ 36.50

- ➔ Whole Herd Cost per Cwt. Pork Sold 90% & 92% respectively
 - ➔ 50th Percentile Cost per Cwt. Sold down \$ 6.15 to \$ 55.36/Cwt.
 - ➔ 90th Percentile Cost per Cwt. Sold down \$ 3.88 to \$ 46.98/Cwt.

Comparative Cost of Production

Breed to Wean Units, Report Method

- Inventory change is in the divisor
- Divisor is “Pigs Produced – Complete Equivalent”
- Costs are presented in a LHHP modified “NPPC Financial Standard” format
 - Facilities, labor and other operating reported as “Cost Normally Borne By Contractor”. This allows comparability between farms.
 - Genetics include semen, breeding supplies, royalties, sow depreciation, (gain) loss on sale or death. Breeding stock development costs are capitalized.
 - Example of allocation of capitalized cost; 7% labor, 12% facilities, 4% other, 73% feed, & 4% vet
 - Feed includes grind, mix and delivery
 - Other costs may be adjusted to add a standard charge of \$12/Ton
- Totals are presented before general and administrative & before finance
- Marketing costs are treated as deductions from revenue
- The reported numbers may not total, the reported metrics are averages and non conforming data points may not be displayed.

Breed To Wean: (detail - see page 17)

80,200 + sows, 2.02 million pigs, Avg. 25.23 pigs/sows/year

- Average cost to produce wean pig: \$36.68
- Farms: 20
 - Range: \$ 28.61 to \$43.80
 - Spread: \$ 15.19 *2014 & 2013 it was \$ 20.50 & \$15.04 per pig*
- Labor/Facilities/Other: Range \$ 11.46 to \$19.38
- Genetics: Range \$ 2.14 to \$ 7.48
- Feed: Range \$ 9.93 to \$ 17.05
- Veterinary: Range \$ 1.04 to \$ 6.32
- Of the 10 herds with costs lower than the average of \$36.68,
4 < 3,000 & 6 > 3,000 sows

Comparative Cost of Production for 2015

Breed to Wean Units

Cost per Pig Produced – Complete Equivalent

	2015 Average less than 3,000 sows	2015 Average greater than 3,000 sows	Benchmark – 50 th Percentile	Benchmark – 90 th Percentile
Expenses:				
Personnel	7.51	5.73	7.01	5.85
Facilities	4.94	6.56	6.58	5.20
Other Operating	2.04	1.78	2.41	1.50
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	14.49	14.08	16.00	12.55
Genetics	4.24	3.98	4.75	2.75
Feed	13.21	12.92	15.23	13.02
Veterinary/Medicine	3.75	3.86	5.42	3.55
Total Cost of Production before Administrative & Finance	35.69	35.09	41.40	31.87
Administrative	1.35	.98	1.45	0.90
Total Cost of Production before Finance	37.05	36.03	42.85	32.77
Interest – non-facility	0.07	0.16	0.20	-
Total Cost of Production (per pig) *	37.11	36.20	43.05	32.77

* Average Columns May Not Total – Metrics are Averages

Comparative Cost of Production

Breed to Wean Units Compare 2015 to 2014

Cost per Pig Produced – Complete Equivalent

	2015 Average less than 3,000 sows	2015 Average greater than 3,000 sows	2014 Average less than 3,000 sows	2014 Average greater than 3,000 sows
Expenses:				
Personnel	7.51	5.73	6.79	6.14
Facilities	4.94	6.56	5.19	8.02
Other Operating	2.04	1.78	2.53	1.71
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	14.49	14.08	14.51	15.88
Genetics	4.24	3.98	1.38	1.98
Feed	13.21	12.92	15.11	14.54
Veterinary/Medicine	3.75	3.86	3.99	3.70
Total Cost of Production before Administrative & Finance	35.69	35.09	35.00	36.10
Administrative	1.35	0.98	1.46	.84
Total Cost of Production before Finance	37.05	36.03	36.45	36.94
Interest – non-facility	0.07	0.16	0.15	0.34
Total Cost of Production (per pig) *	37.11	36.20	36.60	37.28

*Average Columns May Not Total –
Metrics are averages.

\$0.91/ PIG less > 3000 sows

\$0.68 / PIG less < 3000 sows

Comparative Cost of Production

Breed to Wean Units, Compare 2015 to 2014, Cost per sow

	2015				2014	
	Average less than 3,000 sows	Year to year change	Average greater than 3,000 sows	Year to year change	Average less than 3,000 sows	Average greater than 3,000 sows
Pigs/Inventoried Sow/Year	23.66	102%	25.35	111%	23.76	22.81
Expenses:						
Personnel	181.07	111%	141.06	101%	163.28	139.84
Facilities	115.12	93%	166.30	91%	124.39	181.95
Other Operating	48.93	80%	45.20	119%	61.17	38.04
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	345.12	99%	352.56	98%	348.85	359.82
Genetics	102.05	305%	90.69	201%	33.41	45.01
Feed	306.08	85%	287.67	86%	359.54	333.07
Veterinary/Medicine	88.82	94%	86.78	105%	94.75	82.46
Total Cost of Production before G&A & Finance	842.08	101%	817.70	100%	836.55	820.36
Administrative	32.82	95%	23.63	121%	34.72	19.49
Total Cost of Production before Finance	874.90	100%	841.33	100%	871.28	839.85
Interest – non-facility	1.20	33%	4.19	60%	3.67	7.03
Total Cost of Production (per pig)	876.10	100%	845.52	100%	874.94	846.89

*Average Columns May Not
Total-Metrics are Averages

\$30.58 / Sow higher cost < 3000 sows

\$28.05 / Sow Difference 2014

**2015 Comparative - Breed to Wean Units
Cost per Pig Produced Complete Equivalent**

Number of Sows in Comparison	80,222
Number of Weaned Pigs	2,024,263

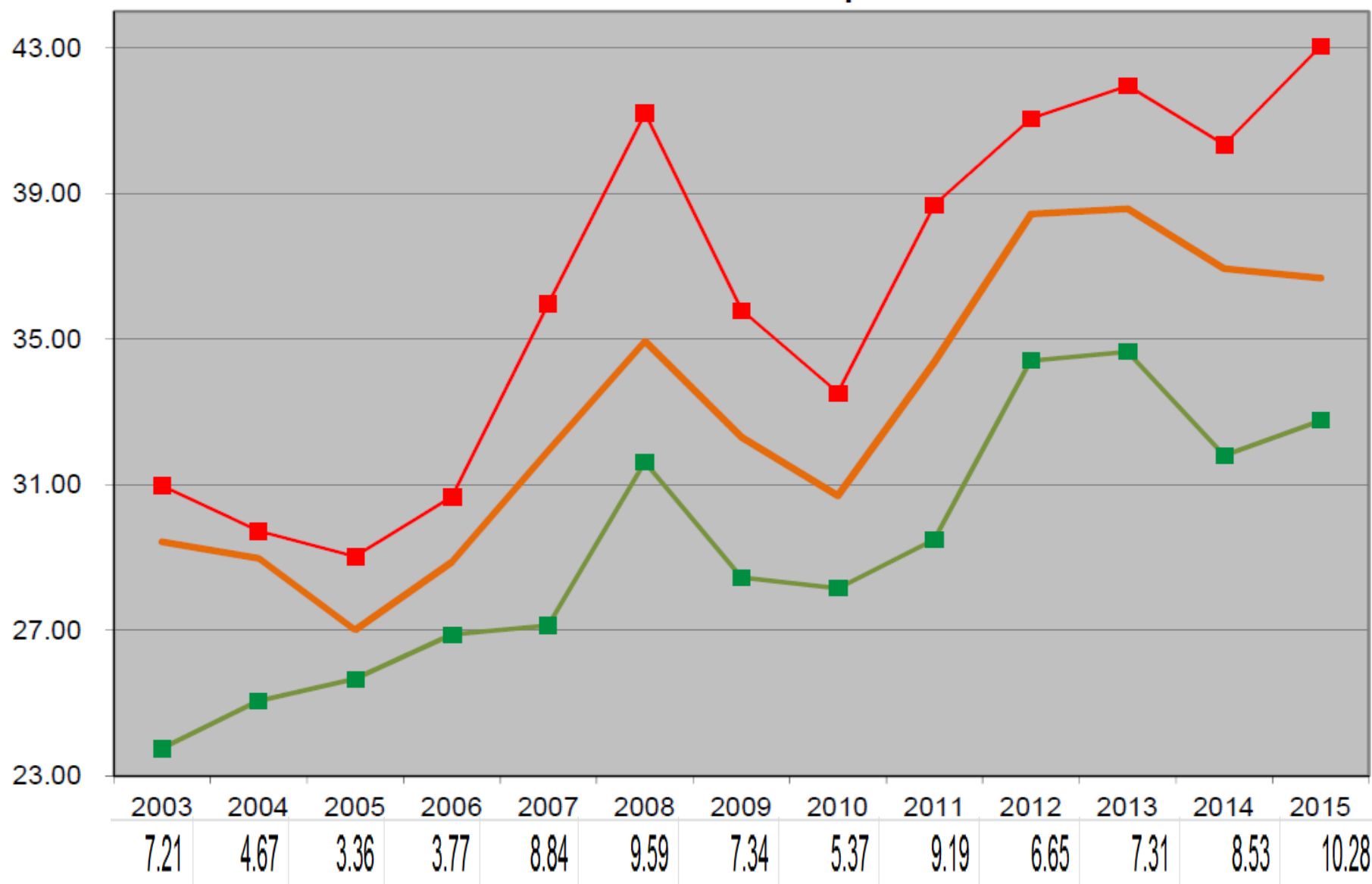
25.23 p/s/y avg/farm

Sorted By:

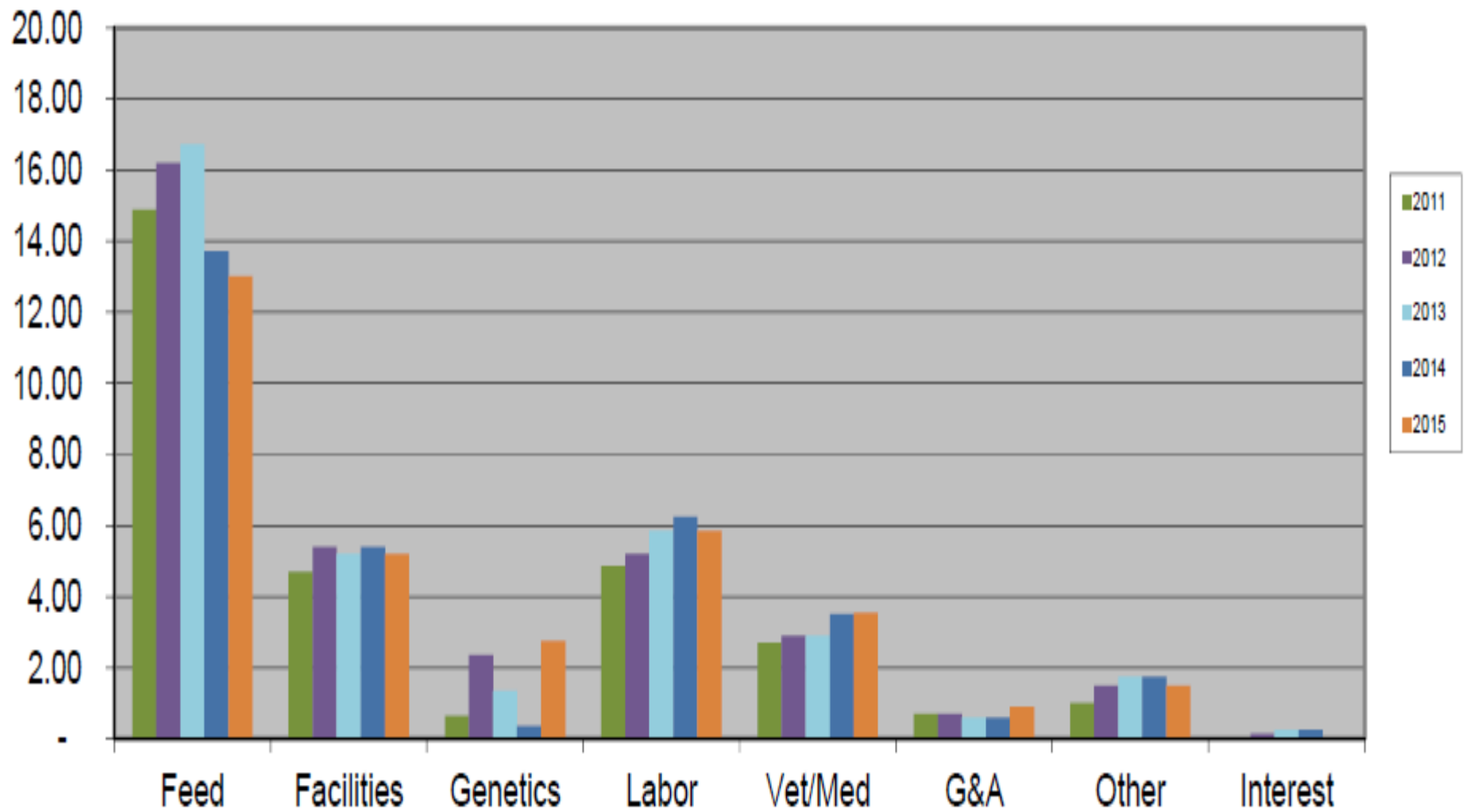
Sow Herd Size	Farm Code	Total Personnel	Total Facilities	Total Other	Cost borne by Contractor	Total Genetics	Total Feed	Total Vet	Total b4 G& A & Interest	Total G&A	Total Interest	Total Cost of Production
< 3000	R	5.49	5.14	1.65	12.28	2.61	11.54	1.04	27.47	1.14	-	28.61
< 3000	I	8.58	4.89	2.02	15.49	2.22	10.15	2.29	30.15	0.67	0.11	30.93
> 3000	K	6.82	4.38	1.02	12.22	3.67	11.92	2.99	30.80	0.43	0.01	31.24
> 3000	G	3.85	8.06	2.78	14.69	4.28	9.93	3.35	32.25	0.22	-	32.47
90th Percentile		5.85	5.20	1.50	12.55	2.75	13.02	3.55	31.87	0.90	-	32.77
< 3000	D	6.68	5.31	2.22	14.21	4.59	10.43	2.92	32.15	1.65	0.02	33.82
> 3000	F	4.51	8.85	2.56	15.92	3.97	10.41	3.75	34.05	0.15	-	34.20
< 3000	T	11.34	2.62	0.36	14.32	3.20	14.16	1.95	33.63	0.63	-	34.26
Average - 1/2 Standard Devia		5.68	4.87	1.58	13.40	3.43	11.98	3.09	33.54	0.77	(0.03)	34.69
> 3000	P	5.20	5.26	1.47	11.93	4.92	13.07	4.79	34.71	0.10	0.08	34.89
> 3000	O	4.72	10.63	1.04	16.39	2.14	12.89	2.02	33.44	3.12	0.03	36.59
> 3000	Q	7.38	7.21	1.25	15.84	7.48	9.96	2.60	35.88	0.72	0.08	36.68
Average		6.64	5.84	1.94	14.42	4.12	13.07	3.80	35.41	1.16	0.12	36.68
> 3000	M	5.96	4.89	1.70	12.55	2.70	15.67	4.27	35.19	1.54	-	36.73
> 3000	B	5.45	4.67	1.34	11.46	2.42	17.05	4.90	35.83	1.46	0.09	37.38
< 3000	U	6.21	4.76	1.87	12.84	5.79	13.70	4.33	36.66	1.65	0.05	38.36
Average --1/2 Standard Devia		7.60	6.80	2.29	15.43	4.81	14.16	4.51	37.28	1.54	0.28	38.68
< 3000	C	6.63	4.37	1.77	12.77	4.83	13.01	6.32	36.93	1.94	0.07	38.94
< 3000	H	7.46	3.18	2.34	12.98	4.57	13.59	5.89	37.03	1.88	0.18	39.09
> 3000	E	6.10	7.86	2.26	16.22	4.18	12.28	5.08	37.76	1.29	1.43	40.48
< 3000	A	6.33	5.04	2.99	14.36	4.89	14.99	5.12	39.36	1.68	-	41.04
> 3000	J	6.84	6.41	2.85	16.10	4.03	15.99	4.88	41.00	0.36	-	41.36
< 3000	S	11.54	5.45	2.39	19.38	6.38	12.84	2.77	41.37	0.67	0.02	42.06
50th Percentile		7.00	6.58	2.41	15.99	4.75	15.23	5.42	41.39	1.45	0.20	43.04
< 3000	L	6.53	7.65	2.91	17.09	4.42	15.32	5.04	41.87	1.90	0.03	43.80

Breed to Wean 13 Year History

B-W 50th vs. 90th Percentile Compare with Observed



Breed to Wean 90th Percentile



2015 Observations on Sow Sales

- Average pounds sold: 481 lbs. ,weight up 13lbs., range 2015; 380-533 lbs, (2014; 403-528 lbs 2013; 446-506 lbs)
- Average value cwt: \$37.20, (2014 \$70.50) range 2015 \$33.60 to \$ 41.80, (2014 \$60.05 to \$75.50)
- Average value per head: 2015 **\$180**
 - (2014 \$330)
- Range: \$159 to \$201 per sow
- Variance high to low per sow: 2015 **\$42** (2014 \$148 2013 \$88, 2012 \$101, 2011 \$54)

Comparative Cost of Production

Wean to Finish Units, Report Method

- Divisor is “Pounds Produced”
- Inventory change is in the divisor
- Genetic cost not included. Calculation is cost to add a pound of gain.
- Purchase pig pounds are accounted for as an adjustment to pounds produced
- Contract fees are allocated by percentage:
 - Example 32% labor, 52% facilities and 16% other. To allow comparability between farms.
- Costs are presented in a LHHP modified “NPPC Financial Standard” format.
 - Facilities, labor and other reported as “Cost Normally Borne By Contractor”. This allows comparability between farms.
 - Feed includes grind, mix and delivery
 - Other cost may be adjusted to add a standard charge of \$12/Ton
 - Example of allocation: 18% labor, 75% facilities, 7% other operating
- Totals are presented before general and administrative & before finance
- Marketing costs are treated as deductions from revenue
- The reported numbers may not total, the reported metrics are averages and non conforming data points may not be displayed.

Wean to Finish: (detail - see page 25)

~ 548,244,000 million pounds produced , ~ 2.05 million pigs,

- Average cost to add 100 lbs. of gain: \$ 38.69
 - Farms: 20
 - Range: \$ 32.41 to \$ 43.10 per cwt.
 - Spread: \$ 10.69/cwt. ~ \$28.50 / pig
 - 2014 spread \$ 15.04/cwt. ~ \$ 40 per pig (- \$11.50 from 2014)
- Labor/Facilities/Other: Range \$ 2.55 to \$ 10.37
- Feed: Range \$ 24.99 to \$ 33.08
- Veterinary: Range \$ 0.29 to \$ 2.50
- The 8 herds under the average \$ 38.69 2 produce > 100,000 cwt. and 6 produce < 100,000 cwt.
100,000 CWT = 10,000,000 pounds gain = ~37,000 pigs

Comparative Cost of Production for 2015

Wean to Finish Units, Cost per CWT Produced

<i>100,000 CWT=10 Million Pounds</i>	2015 Average less than 100,000 CWT	2015 Average greater than 100,000 CWT	Benchmark – 50 th Percentile	Benchmark – 90 th Percentile
Expenses:				
Personnel	2.22	2.78	2.98	2.66
Facilities	4.35	4.55	4.76	4.23
Other Operating	1.10	1.38	1.51	1.25
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	7.67	8.70	9.25	8.14
Genetics	0	0	0	0
Feed	28.32	28.93	28.88	26.79
Veterinary/Medicine	1.33	1.15	1.59	1.15
Total Cost of Production before Administrative & Finance	37.33	38.79	39.72	36.08
Administrative	0.47	0.63	0.97	0.35
Total Cost of Production before Finance	37.79	39.42	40.69	36.43
Interest – non-facility	0.17	0.18	0.42	0.07
Total Cost of Production (per cwt.)	37.96	39.60	41.11	36.50

* Average Columns May Not Total – Metrics are Averages

Comparative Cost of Production

Wean to Finish Units, Cost Per Hundred Weight Of Gain

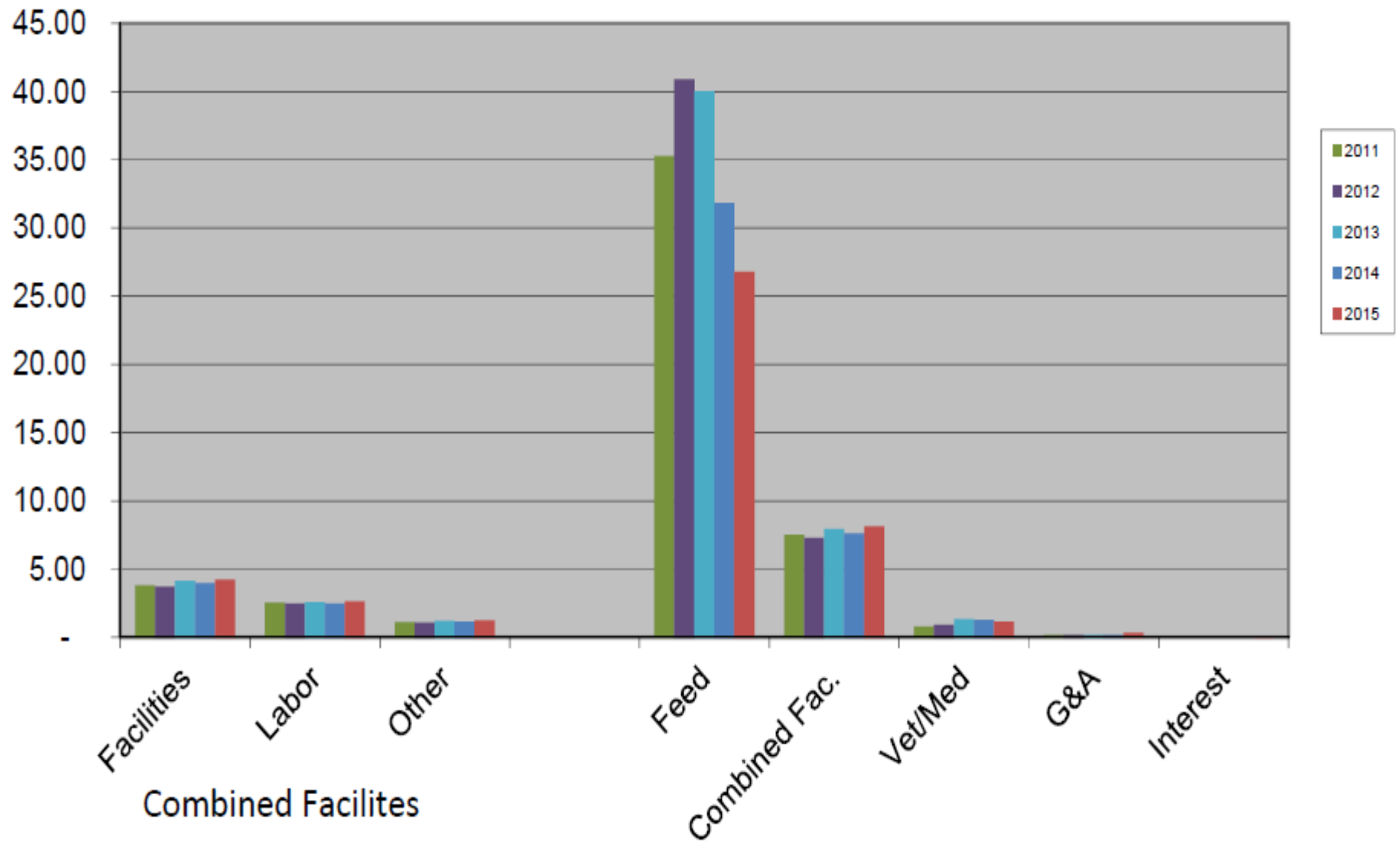
	Average 2015	Average 2014	Benchmark – 50 th Percentile 2015	Benchmark – 90 th Percentile 2015
Expenses:				
Personnel	2.47	2.88	2.98	2.66
Facilities	4.44	4.71	4.76	4.23
Other Operating	1.23	1.49	1.51	1.25
Total of Labor, Facilities, and Other Costs Normally Borne by Contractors	8.14	9.08	9.25	8.14
Genetics	0	0	0	0
Feed	28.60	32.68	28.88	26.79
Veterinary/Medicine	1.25	1.29	1.59	1.15
Total Cost of Production before G&A & Finance	37.98	43.05	39.72	36.08
Administrative	0.54	0.56	0.97	0.35
Total Cost of Production before Finance	38.52	43.61	40.69	36.43
Interest	0.17	0.38	0.42	0.07
Total Cost of Production (per cwt.) *	38.69	43.99	41.11	36.50

2015 Comparative - Wean To Finish
Cost per CWT of Gain

Number of Pigs	2,053,347
Number of CWT in Comparison	5,482,438

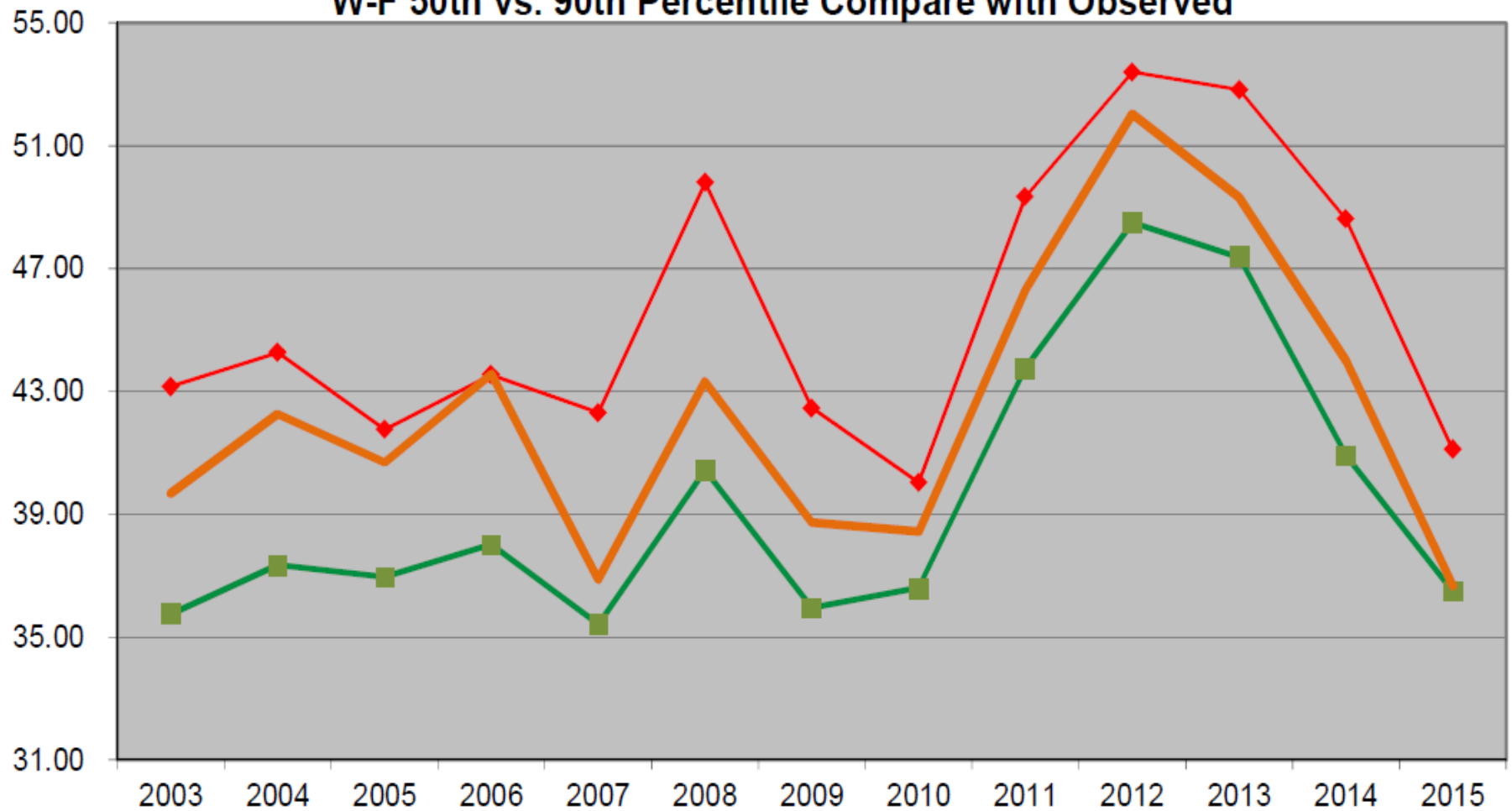
											Sorted By:
> 100,000 cwt	Farm Code	Total Personnel	Total Facilities	Total Other	Cost borne by Contractor	Total Feed	Total Vet	Total b4 G&A & Interest	Total G&A	Total Interest	Total Cost of Production
n	P	1.04	1.38	0.13	2.55	29.42	0.29	32.26	0.15	-	32.41
n	M	1.92	5.17	1.48	8.57	24.99	0.98	34.54	0.65	0.02	35.21
n	K	2.04	3.65	1.02	6.71	27.14	1.50	35.35	0.46	-	35.81
n	O	2.03	3.20	1.52	6.75	27.20	1.53	35.48	0.51	-	35.99
90th Percentile		2.66	4.23	1.25	8.14	26.79	1.15	36.08	0.35	0.07	36.50
y	H	3.80	3.82	1.55	9.17	26.73	0.79	36.69	0.16	-	36.85
Average + 1/2 Standard Dev.		2.04	3.77	0.96	7.29	27.66	1.02	36.82	0.31	0.04	37.46
y	F	0.55	7.04	0.32	7.91	28.01	1.28	37.20	0.64	0.07	37.91
n	J	2.23	6.38	1.76	10.37	26.09	0.94	37.40	0.81	0.10	38.31
n	T	2.10	3.97	1.17	7.24	28.44	2.50	38.18	0.19	-	38.37
		2.47	4.44	1.23	8.14	28.60	1.25	37.98	0.54	0.17	38.69
y	S	2.21	5.20	1.11	8.52	28.13	1.57	38.22	0.52	0.03	38.77
y	D	2.62	4.28	2.30	9.20	26.70	1.15	37.05	2.10	0.02	39.17
n	Q	1.53	4.18	0.77	6.48	31.50	1.27	39.25	0.24	-	39.49
y	E	3.04	3.67	1.18	7.89	30.11	1.36	39.36	0.25	0.20	39.81
n	N	2.65	3.96	1.63	8.24	29.16	2.14	39.54	0.36	-	39.90
y	C	3.10	3.77	1.25	8.12	29.65	1.73	39.50	0.14	0.27	39.91
Average - 1/2 Standard Dev.		2.91	5.10	1.50	8.98	29.53	2.17	39.15	0.77	0.30	39.92
y	R	3.24	4.14	2.02	9.40	28.61	1.19	39.20	0.56	0.17	39.93
n	B	3.58	3.52	1.12	8.22	29.75	0.96	38.93	0.89	0.54	40.36
n	L	2.73	6.54	0.41	9.68	28.48	1.78	39.94	0.36	0.25	40.55
y	A	2.44	5.35	1.34	9.13	29.34	0.55	39.02	1.09	0.69	40.80
50th Percentile		2.98	4.76	1.51	9.25	28.88	1.59	39.72	0.97	0.42	41.11
n	I	2.60	5.84	1.12	9.56	29.41	0.75	39.72	0.50	0.92	41.14
y	G	3.99	3.67	1.34	9.00	33.08	0.76	42.84	0.23	0.03	43.10

Wean to Finish 90th Percentile



Benchmark Cost - Wean to Finish 13 Year History

W-F 50th vs. 90th Percentile Compare with Observed



Spread	7.40	6.91	4.79	5.53	6.90	9.36	6.49	3.42	5.58	4.91	5.45	7.69	4.61
--------	------	------	------	------	------	------	------	------	------	------	------	------	------

Comparative Cost of Production

Farrow to Finish Units / Whole Herd

Report Method

- Inventory change is adjusted against cost by percentage allocation. Percentage allocation determined by cost allocation prior to addition of inventory change.
- Divisor is “Pounds Sold”
- Purchased (sold) pig cost (credit) are allocated to cost categories by use of a percentage allocation method:
 - 15% facilities, 44% feed, 15% labor, 7% genetics, 11% vet, 5% other, 3% G&A
- Contract fees are allocated by percentage:
 - 37% labor, 48% facilities and 15% other. To allow comparability between farms.
- Costs are presented in a LHHP modified “NPPC Financial Standard” format
 - Facilities, labor and other reported as “Cost Normally Borne By Contractor”. This allows comparability between farms.
 - Genetics (same as Breed to Wean)
 - Feed (same as Wean to Finish)
- Totals are presented before general and administrative & before finance
- Marketing costs are treated as deductions from revenue
- The reported numbers may not total, the reported metrics are averages and non conforming data points may not be displayed.

Breed to Finish/Whole Herd: (*detail – see page 32*)

→ Average cost to produce a 100 lbs. of pork: \$ 51.65

→ Farms: 14

→ Range: \$ 47.12 to \$ 57.85 per cwt

→ Spread: \$ 10.73 or \$ 30.04 per pig at 280 lbs

2014 spread \$17.18, \$48.10 at 280 lbs

→ Labor/Facilities/Other: Range \$ 9.28 to \$18.82

→ Feed: Range \$ 29.33 to \$ 38.02

→ Veterinary: Range \$ 1.27 to \$ 4.68

→ Of the 10 herds under the average cost \$ 51.65

6 sold > 8,000,000 pounds

4 sold < 8,000,000 pounds

Comparative Cost of Production 2015

Farrow to Finish / Whole Herd, Cost Per Hundred Weight

	Average less than 8 million live lbs sold	Average greater than 8 million live lbs sold	Benchmark – 50 th Percentile	Benchmark – 90 th Percentile
Expenses:				
Personnel	5.23	4.75	5.47	4.70
Facilities	7.64	7.35	7.02	5.97
Other Operating	1.59	1.85	2.34	1.75
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	14.47	13.94	14.83	12.42
Genetics	1.46	1.55	1.78	1.02
Feed	32.82	31.23	33.25	30.39
Veterinary/Medicine	2.20	2.43	3.56	2.41
Total Cost of Production before Administrative & Finance	50.94	49.16	53.42	46.24
Administrative	1.00	1.29	1.47	0.67
Total Cost of Production before Finance	51.94	50.44	54.89	46.91
Interest	0.30	0.16	0.47	0.07
Total Cost of Production (per cwt.)	52.24	50.60	55.36	46.98

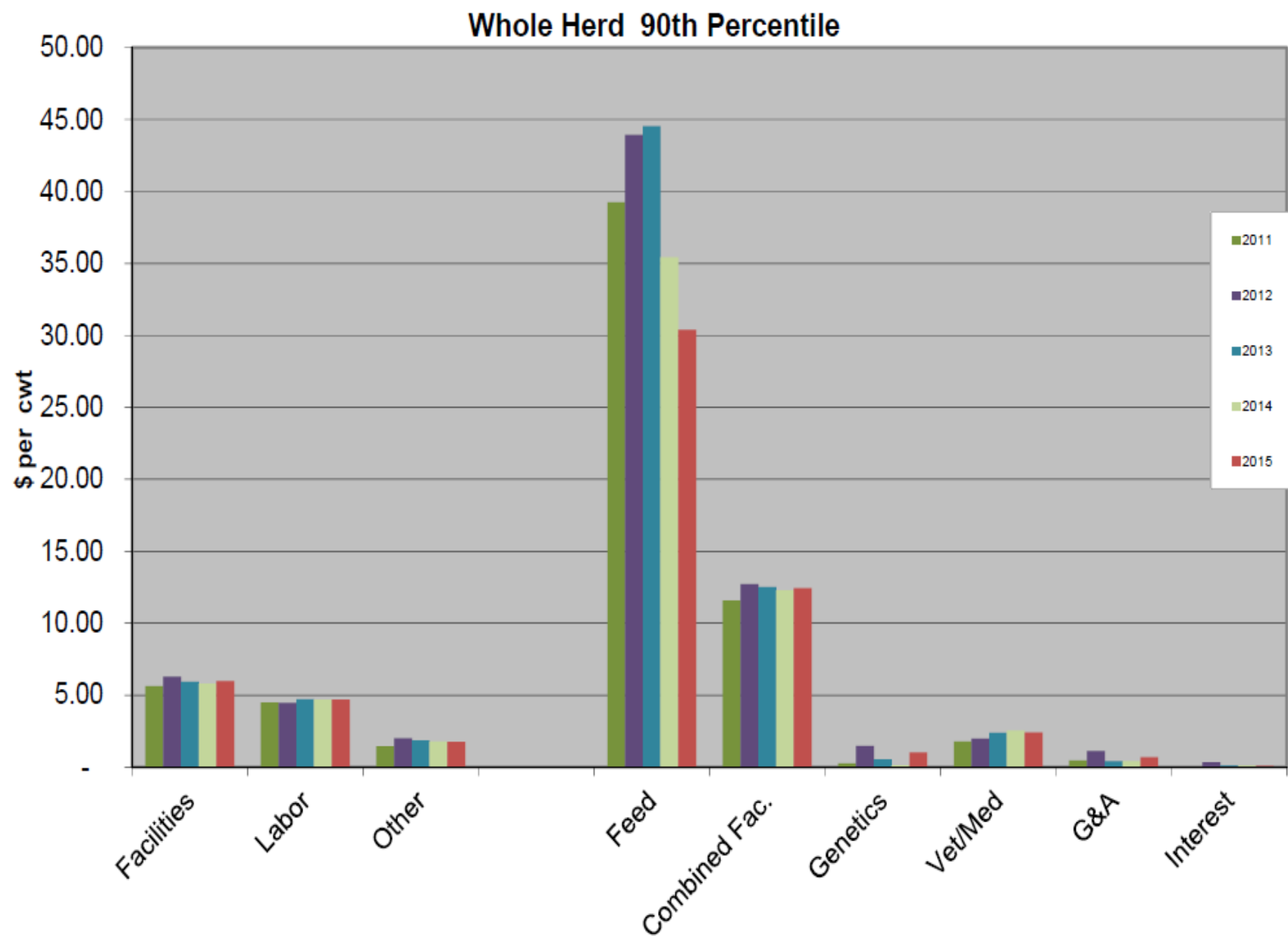
Comparative Cost of Production
Farrow to Finish Units/Whole
Herd
Compare 2015 to 2014
Cost Per Hundred Weight

	2015 Average less than 8 million live lbs. sold	2015 Average greater than 8 million live lbs. sold	2014 Average less than 8 million live lbs. sold	2014 Average greater than 8 million live lbs. sold
	5.23	4.75	5.61	5.41
Facilities	7.64	7.35	7.80	7.10
Other Operating	1.59	1.85	2.03	2.33
Total of Labor, Facilities, and Other Costs Normally borne by Contractors	14.47	13.94	15.45	14.85
Genetics	1.46	1.55	0.55	0.38
Feed	32.82	31.23	37.75	38.07
Veterinary/Medicine	2.20	2.43	2.13	2.02
Death Loss Factor	0	0	0	0
Total Cost of Production before Administrative & Finance	50.94	49.16	55.88	55.32
Administrative	1.00	1.29	0.96	1.37
Total Cost of Production before Finance	51.94	50.44	56.84	56.69
Interest	0.30	0.16	0.26	0.37
Total Cost of Production (per cwt)	52.24	50.60	57.10	57.06
	\$1.64, \$ 0.58/pig		\$ 0.04, \$.01/pig	

2015 Comparative - Breed to Finish
Cost per CWT Pork Sold

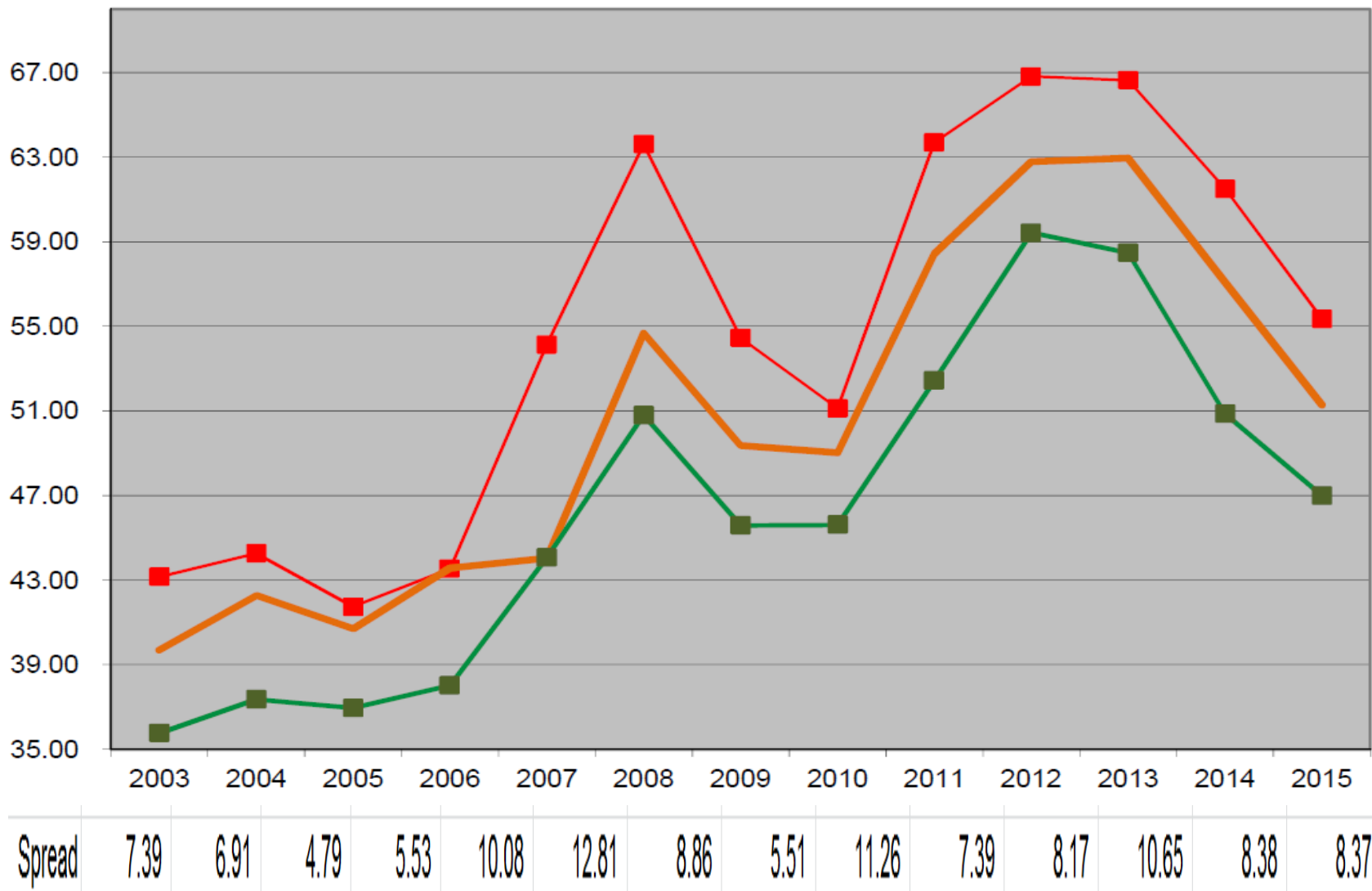
Number of CWT in Comparison	2,980,908
Number of Pigs Marketed	1,062,905

												Sorted By:
Lbs. Sold	Farm Code	Total Personnel	Total Facilities	Total Other	Cost borne by Contractor	Total Genetics	Total Feed	Total Vet	Total b4 G&A & Interest	Total G&A	Total Interest	Total Cost of Production
90th Percentile		4.70	5.97	1.75	12.42	1.02	30.39	2.41	46.24	0.67	0.07	46.98
>8mil	N	5.54	6.05	1.24	12.83	1.46	29.96	1.28	45.53	1.35	0.24	47.12
<8mil	D	4.76	5.34	2.12	12.22	1.16	30.86	3.98	48.22	0.75	-	48.97
>8mil	C	5.44	8.10	2.48	16.02	0.84	29.49	1.80	48.15	1.05	0.15	49.35
<8mil	A	6.96	5.64	3.81	16.41	1.03	29.33	1.41	48.18	1.49	-	49.67
<8mil	K	5.83	3.00	0.45	9.28	1.20	37.84	1.46	49.78	0.44	-	50.22
Average + 1/2 Standard Deviation		4.33	6.30	1.29	13.18	1.27	30.50	1.90	48.90	0.81	0.03	50.25
>8mil	H	5.35	6.10	1.72	13.17	1.14	32.99	2.37	49.67	0.74	0.05	50.46
>8mil	E	4.23	8.02	2.55	14.80	0.80	29.97	1.84	47.41	3.15	0.03	50.59
<8mil	B	5.92	7.36	2.25	15.53	2.12	30.14	2.07	49.86	0.89	0.05	50.80
>8mil	M	4.17	7.36	1.93	13.46	1.78	30.16	4.68	50.08	0.67	0.27	51.02
>8mil	F	3.24	9.64	0.77	13.65	2.68	31.56	2.21	50.10	0.89	0.10	51.09
Average		4.99	7.52	1.79	14.30	1.56	31.97	2.41	50.24	1.18	0.22	51.65
Average - 1/2 Standard Deviation		5.65	8.74	2.30	15.43	1.85	33.44	2.92	51.59	1.55	0.41	53.04
<8mil	J	6.45	12.24	0.13	18.82	1.34	30.15	1.27	51.58	2.23	0.20	54.01
<8mil	I	4.87	8.59	1.87	15.33	1.22	33.39	3.07	53.01	0.76	0.34	54.11
>8mil	G	5.24	6.15	2.25	13.64	2.18	34.47	2.86	53.15	1.17	0.29	54.61
50th Percentile		5.47	7.02	2.34	14.83	1.78	33.25	3.56	53.42	1.47	0.47	55.36
<8mil	L	1.83	11.30	0.52	13.65	2.13	38.02	2.15	55.95	0.40	1.50	57.85



Benchmark Cost Breed to Finish Cost per CWT

Whole Herd 50th vs. 90th Percentile Compare With Observed



2015 Observations on Market Sales

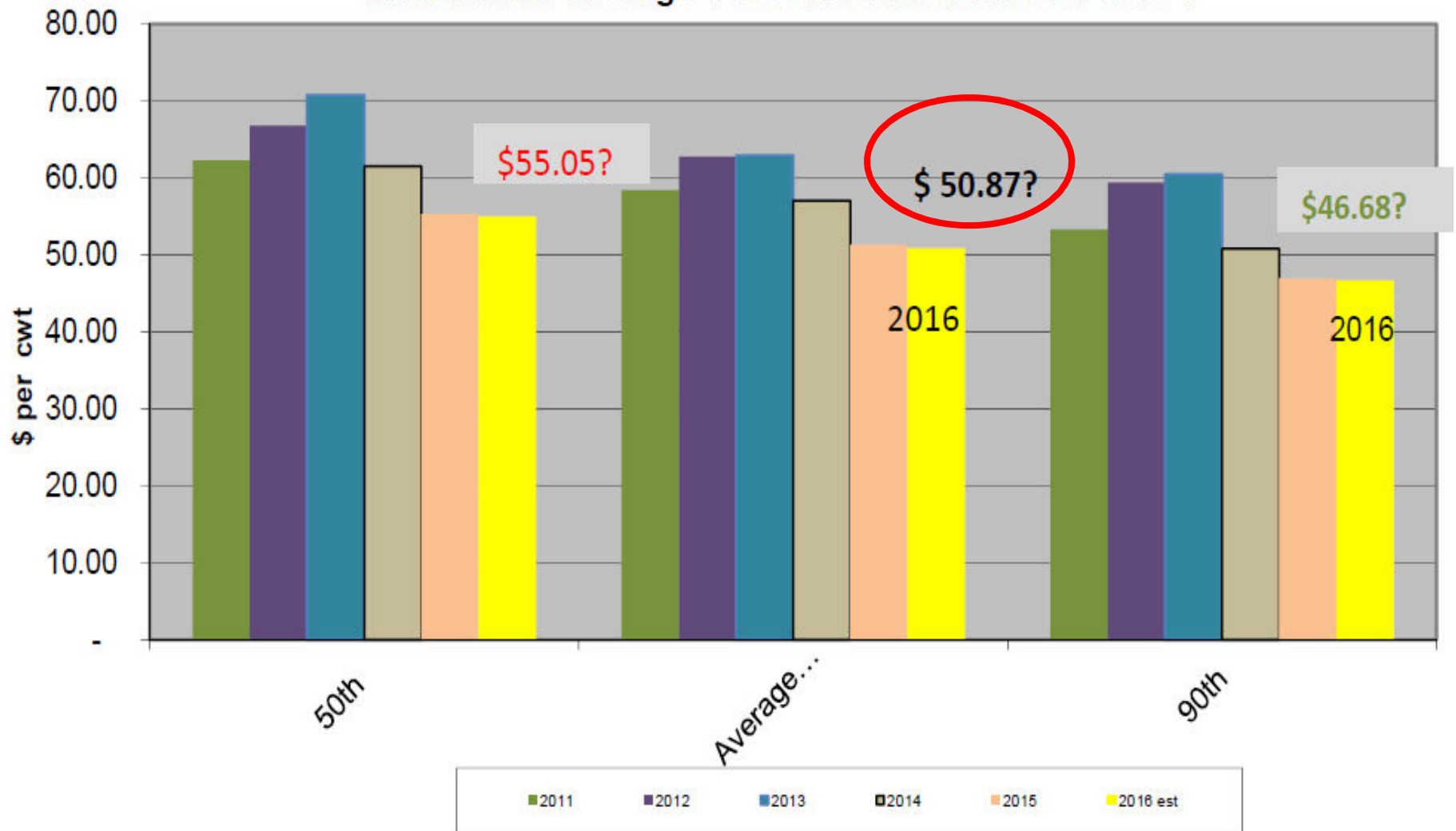
- Average market weight: 283 lbs, *(up 2# from 2014)*
- Average value per cwt: \$ 56.40, *(\$21.81 down from 2014)*
- Average value per head: \$ 160, *(down \$60.00 from 2014)*
- Average weight of “off value”: 169 lbs. *(up 8# from 2014)*
- Average value of “off value” per head \$ 56.00
(down \$32.00 per head from 2014)
- Percentage “off valued” 1.2% , *(down 1.4%)*
 - Range 1.2% - 4.6%

Observation on Profit Margins

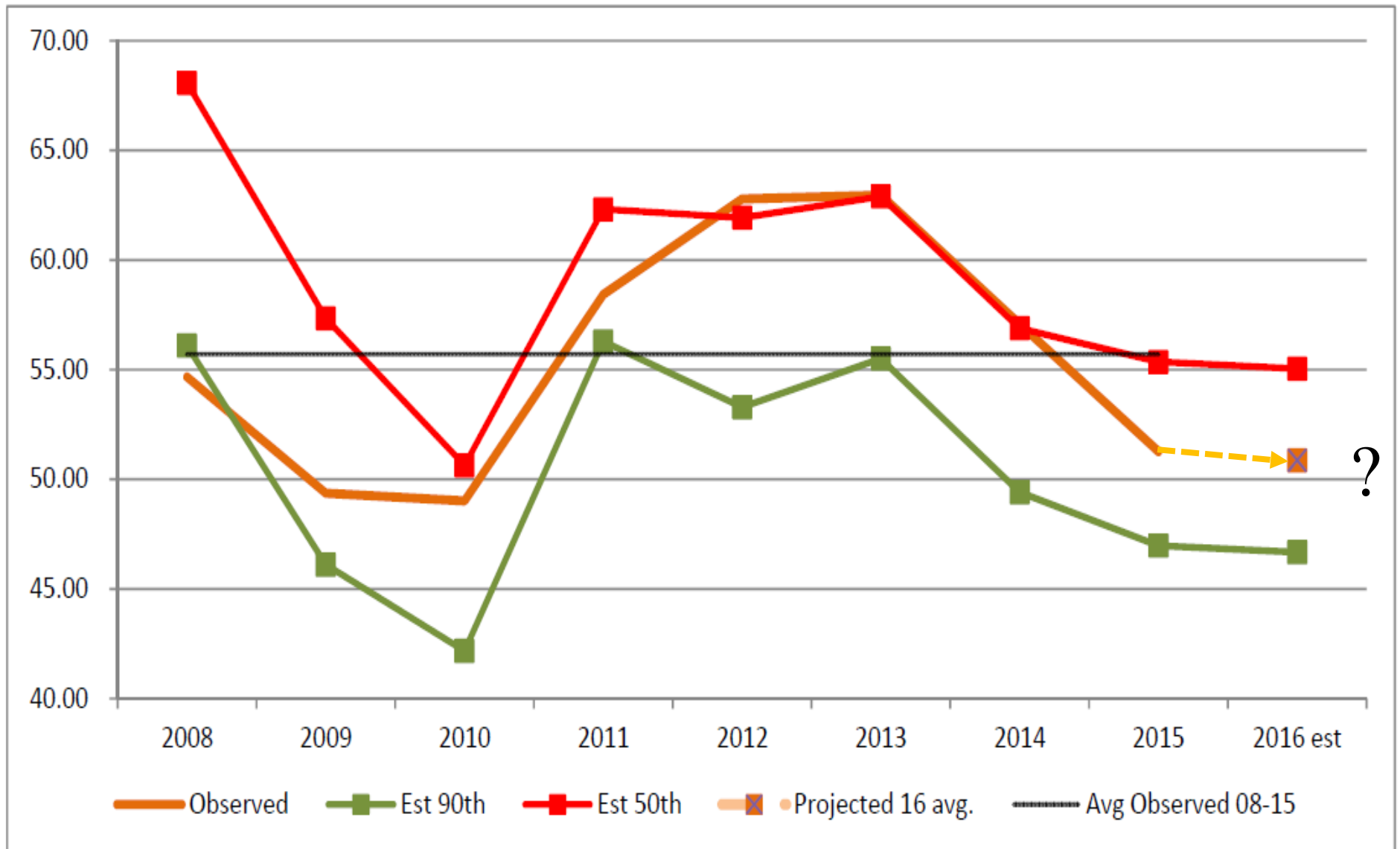
- Average net revenue per head: \$160
(2014, \$220, \$78.21 2013, \$183, \$66.97 per Head & CWT Sold)
- Net \$56.68 per CWT
- Range \$ 142 to \$ 168 , spread \$ 26 per head *(2014 \$37)*
- Market weight range 269 to 289 *(2014 277 to 289)*
- 50th percentile cost \$ 155.26 per head
 - Average Potential Profit per head ~ \$ 4.70
 - 90th percentile cost \$131.74 per head
 - Average Potential Profit per head ~ \$ 28.26
- Spread Potential (@ average revenue & 90th percentile cost = **\$23.50 /pig sold 4yr avg > \$25**
(Spread 90th to 50th in 2014 \$30, 2013 \$22, 2012 \$28)

Total B-F COP, What is the estimated cost for 2016?

What will the Average Cost of Production be for 2016 ?



Future Estimated Benchmarks Compared to Observed



Y/E 12/31/16 ESTIMATED Benchmarks - 50th & 90th Percentile as of 8/17/2016

	Breed to Wean		Wean to Finish		Whole Herd	
	<i>\$/pig Weaned</i>	<i>\$/pig Weaned</i>	<i>\$/cwt Produced</i>	<i>\$/cwt Produced</i>	<i>\$/cwt Sold</i>	<i>\$/cwt Sold</i>
<i>CWT Gain - CWT Sold</i>			2.67	2.67	2.80	2.80
<i>Cost to Produce Wean Pig</i>			<i>Cost to Add Gain Per Cwt of Gain, W-F</i>		<i>Total Cost / Pig to Market Per Cwt of Pork Sold</i>	
	50th Percentile	90th Percentile	50th Percentile	90th Percentile	50th Percentile	90th Percentile
Labor	\$ 7.01	\$ 5.85	\$ 2.98	\$ 2.66	\$ 5.47	\$ 4.70
Facilities	6.58	5.20	4.76	4.23	7.02	5.97
Other Expenses	2.41	1.50	1.51	1.25	2.34	1.75
Subtotal cost normally borne by contractor	16.00	12.55	9.25	8.14	14.83	12.42
Feed cost	15.31	13.08	28.52	26.46	32.94	30.09
Genetics	4.75	2.75			1.78	1.02
Vet/Med	5.42	3.55	1.59	1.15	3.56	2.41
General and Administrative	1.45	0.90	0.97	0.35	1.47	0.67
Interest Expense - non facility	0.20	-	0.42	0.07	0.47	0.07
Estimated 12 Months Ending 12/31/16	\$ 43.13	\$ 32.83	\$ 40.75	\$ 36.17	\$ 55.05	\$ 46.68
Breakeven Carcass Price Needed @ 75% Yield, y/e 12/31/16					\$ 73.40	\$ 62.24

Adjustment for Year End - Due to Change in Corn & SBM Prices

Average Estimated Corn Cost \$ 3.85 / Bu, increase of \$.18/bu. from the 2015 cost of \$3.67/bu.

Average Estimated Bean Meal \$ 312/ Ton Down by \$18.79/ton from the 2015 cost of \$331/ton

Multi-Year Comparative

Breed to Wean 6 Year Average

Breed to Wean Comparative

6 years average, ranked by 6 year average cost of Production

Years 2010,2011,2012,2013,2014,2015

													SORT
ID	Avg Sow > 2000 Head	Average P/S/Y	Average of Personnel	Average of Facilities	Average of Other	Average of contractor	Average of Feed	Average of Genetics	Average of Vet	Average of sub total	Average of G&A	Average of Interest	Average of total
Q	Y	24.2	6.50	7.00	1.10	14.60	11.51	2.52	2.24	30.87	0.58	0.40	31.85
90th Percentile			5.57	5.09	1.66	12.31	14.10	1.60	3.11	31.12	0.78	0.14	32.05
I	N	25.3	6.88	4.92	2.83	14.64	13.90	1.51	2.21	32.25	1.01	0.22	33.49
K	Y	23.6	6.02	5.54	0.74	12.31	15.82	2.22	3.66	34.01	0.20	0.00	34.22
D	N	23.4	6.79	4.71	1.96	13.45	13.47	2.89	3.02	32.84	1.60	0.05	34.49
B	Y	23.0	5.34	4.66	0.91	10.90	17.21	1.52	4.42	34.06	1.57	0.08	35.70
Average		24.08	5.94	5.73	1.88	13.55	14.67	2.80	3.45	34.54	1.17	0.25	35.95
O	Y	24.1	4.40	10.12	1.24	15.76	14.35	2.40	1.81	34.31	1.75	0.34	36.42
P	Y	21.6	5.27	7.24	1.90	14.41	14.60	3.57	3.47	36.04	0.11	0.55	36.70
J	Y	22.3	5.76	5.27	2.10	13.13	16.26	2.89	4.08	36.35	0.25	0.17	36.76
M	Y	22.1	5.34	5.64	1.32	12.30	16.84	2.01	4.07	35.23	1.54	0.05	36.82
C	N	23.5	6.36	4.20	1.78	12.34	15.36	3.47	4.84	36.01	1.93	0.23	38.17
L	N	24.8	5.80	5.83	2.49	14.12	15.00	3.62	4.08	36.81	1.98	0.14	38.92
A	N	23.2	5.96	4.77	2.57	13.30	16.91	2.40	4.77	37.38	1.67	0.16	39.18
H	N	22.9	7.10	3.63	2.28	13.01	16.03	2.49	6.15	37.68	1.79	0.35	39.81
50th Percentile			6.15	6.32	2.35	14.81	15.86	3.31	4.23	38.21	1.38	0.37	39.95

Wean to Finish 5 Year Averages

Wean to Finish Comparative

5 years average 2011,2012,2013,2014,2015

Greater than 200,000 CWT Sold

Sorted by:

	Average of Personel	Average of Facilities	Average of Other	Average of contractor	Average of Feed	Average of Genetics	Average of Vet	Average of sub total	Average of G&A	Average of Interet	Average of total
b90	2.55	3.97	1.17	7.70	34.37	-	1.10	43.17	0.22	0.01	43.41
C	2.48	3.43	1.09	7.01	34.20	-	1.94	43.15	0.10	0.50	43.74
J	2.43	6.42	1.51	10.38	33.58	-	0.77	44.73	0.60	0.12	45.45
F	2.47	4.27	1.20	7.94	35.57	-	1.14	44.64	0.47	0.35	45.46
D	2.48	3.99	2.19	8.66	33.95	-	0.87	43.48	1.94	0.28	45.70
AV	2.62	4.55	1.31	8.48	35.38	-	1.19	45.05	0.59	0.43	46.05
I	2.16	5.79	0.86	8.81	35.40	-	0.67	44.88	0.53	0.94	46.36
T	1.67	3.92	1.29	6.88	36.75	-	2.60	46.23	0.19	0.03	46.45
E	2.90	4.16	1.42	8.48	36.99	-	1.09	46.56	0.19	0.15	46.89
B	3.54	3.31	0.96	7.82	37.24	-	0.72	45.70	0.99	0.93	47.61
A	2.76	5.54	1.21	9.50	36.62	-	0.92	47.04	0.81	0.81	48.66
b50	3.32	5.07	1.66	10.05	36.11	-	1.35	47.51	0.72	0.83	49.06
G	3.60	4.01	1.77	9.37	38.54	-	0.41	48.33	0.51	0.60	49.45

Breed to Finish 6 Year Average

Breed to Finish Comparative

6 years average, ranked by 6 year average cost of Production

Years 2010,2011,2012,2013,2014,2015

> 8,000,000 lbs

											SORT	
ID	Average of Personnel	Average of Facilities	Average of Other	Average of Contractor	Average of Feed	Average of Genetics	Average of Vet	Average of Sub total	Average of G&A	Average of Interest	Average of Total	
90th Percentile	4.54	1.74	5.69	11.98	37.03	0.61	2.17	51.78	0.50	0.16	52.44	
A	7.37	3.36	5.51	16.23	36.32	(0.16)	1.30	53.70	1.33	0.26	55.29	
H	4.89	1.65	6.24	12.78	39.28	0.82	2.26	55.13	0.35	0.14	55.61	
F	4.94	1.59	6.78	13.31	38.65	0.91	1.88	54.75	0.64	0.56	55.94	
B	5.42	1.81	7.33	14.55	37.23	1.41	1.72	54.90	0.82	0.33	56.05	
Average	5.18	1.98	7.01	14.17	37.49	0.95	2.15	54.74	1.05	0.43	56.23	
E	4.79	2.52	7.48	14.78	36.78	0.94	1.51	54.00	2.04	0.50	56.54	
D	4.11	2.07	5.48	11.67	39.38	0.82	3.91	55.77	0.70	0.14	56.62	
G	4.47	1.98	5.66	12.11	38.54	2.01	2.56	55.22	1.17	0.41	56.80	
C	5.20	2.63	8.11	15.94	37.68	0.58	1.60	55.80	0.96	0.21	56.97	
	4.45	2.26	7.38	14.09	38.72	1.39	2.70	56.90	1.39	0.50	58.78	
50th Percentile	5.48	2.44	7.18	15.09	39.28	1.27	2.85	58.49	1.20	0.93	60.62	

Breed to Wean 6 Year Averages, Contractor Costs

Breed to Wean Comparative Contractor Costs

6 years average, ranked by 6 year average Cost of Contractor

Years 2010,2011,2012,2013,2014,2015

> 2000 Head of Sows					SORT
ID	Average P/S/Y	Average of Personnel	Average of Facilities	Average of Other	Average of contractor
B	23.00	5.34	4.66	0.91	10.90
V	25.89	5.56	4.26	1.45	11.27
M	22.12	5.22	5.79	1.24	12.25
H	22.09	5.34	5.64	1.32	12.30
90th Percentile		5.57	5.09	1.66	12.31
K	23.60	6.02	5.54	0.74	12.31
C	23.50	6.36	4.20	1.78	12.34
J	22.29	5.76	5.27	2.10	13.13
A	23.24	5.96	4.77	2.57	13.30
D	23.43	6.79	4.71	1.96	13.45
Average		5.94	5.73	1.88	13.55
L	24.81	5.80	5.83	2.49	14.12
p	21.62	5.27	7.24	1.90	14.41
Q	24.22	6.50	7.00	1.10	14.60
I	25.34	6.88	4.92	2.83	14.64
50th Percentile		6.15	6.32	2.35	14.81
O	24.11	4.40	10.12	1.24	15.76



LattaHarris, LLP Offices

**2730 Naples Avenue SW, Suite 101
Iowa City, Iowa 52240
319-358-0520**

**116 W. Main Street
Washington, Iowa 52353
319-653-6684**

**1201 North Avenue
Tipton, Iowa 52772
563-886-2187**

**3037 Center Point Rd NE
Cedar Rapids, Iowa 52402
319-366-2163**

**626 G Ave
Grundy Center, Iowa 50638
319-824-5221**

www.lattaharris.com

John McNutt

jmcnutt@lattaharris.com

Tipton office 563-886-2187