

Columbia.<sup>17</sup> These are adjusted by a population density function that stretches the actual distance in the high traffic east coast states, and reduces them between western states.<sup>18</sup> The next matrix contains population data – given price differentials and distances between states, the volume of trade is adjusted by the number of people living in a state.<sup>19</sup> The fourth matrix contains the price differentials between each state pair, and the last matrix is a calculated matrix containing expected consumption and trade patterns. The import (or export) values in this matrix are calculated according to the formula:

$$\text{Import}(ij) = \text{Price}(ij) * \text{Pop}(i) * 1 / (1 + \text{EXP}(-U * \text{Distance}(ij)))$$

where i denotes the importing state and j is the exporting state. Price(ij) is the price differential, Pop(i) is the population of the importing state, and distance ij is the distance between the pair. The term u is the parameter to be estimated for the distance function in the shape of a sigmoid.

The value of u is determined based on a minimization function that sets the model parameter to the point where the total trade curve is tangent to a 45 degree line. Below this point, trade between states is surprised, while above it trade explodes exponentially. An in-state elasticity of -.44 is used to calculate lost demand outside of the interstate modeling structure.<sup>20</sup>

The demand model is then shocked with a price change which reflects the impact of the key provisions of the proposed GIPSA rule – the shift from the current system of livestock supply based on a combination of spot market purchases, futures contracts and marketing agreements to one dominated by spot prices.

The estimated cost was developed by comparing the spot price index (developed above) to the behavior of the Producer Price Index for meat over the same period. This comparison showed that producer prices had risen much more slowly than our measure of spot meat prices.

With current meat prices set as a baseline, two scenarios for the future evolution of the retail price of meat were developed. The first was based on the assumption that the weighted average price of meat would rise in line with the historic trend growth rate in producer prices, while the other assumes that retail prices will track the historical trend in spot prices. This provides an estimate of the possible increase in meat prices from a switching supply sources from the contract market to the spot market. The simulation was conducted over a period of 43 months, which is the length of the meat price “cycle” observed in the data.

The result of this analysis is that the proposed GIPSA rule will increase meat prices by 3.33 percent, which would lead to a national decrease in sales of 1.68 percent or about 1.35 billion dollars.

The change in sales is linked back to the Industry Economic Impact Model, which is adjusted to reflect the lower sales volume. The resulting change in employment, output, wages, and taxes are reported in Table 2 and in Appendix Table 1.

<sup>17</sup> State-to-state centroid distance data were obtained from Caliper Corp

<sup>18</sup> US Department of Commerce, Bureau of the Census, Data for 2007

<sup>19</sup> US Department of Commerce, Bureau of the Census, Data for 2009.

<sup>20</sup> You, Z., J.E. Epperson, and C.L. Huang, *A Composite System Demand Analysis for Fresh Fruit and Vegetables in the United States*, Journal of Food Distribution Research, (October 1996):11-22

## Appendix 1: Employment Impact of Proposed GIPSA Rule by State

State	Initial Direct Jobs	Direct Jobs Lost	Initial Producer Jobs	Producer Jobs Lost	Initial Supplier Jobs	Supplier Jobs Lost	Initial Induced Jobs	Induced Jobs Lost	Initial Total Jobs	Total Jobs Lost
Alabama	33,127	567	72,815	1,223	102,029	1,746	39,078	669	174,234	2,981
Alaska	2,610	44	64	1	790	13	1,253	21	4,653	78
Arizona	23,717	396	2,026	34	10,674	178	14,674	245	49,064	820
Arkansas	44,506	751	88,417	1,485	147,023	2,480	78,606	1,326	270,136	4,557
California	187,877	3,142	57,811	971	166,221	2,780	169,220	2,830	523,318	8,752
Colorado	27,948	467	10,094	170	27,177	454	23,281	389	78,405	1,311
Connecticut	15,105	252	1,967	33	6,723	112	9,060	151	30,888	516
Delaware	10,946	183	1,762	30	8,712	146	7,825	131	27,483	461
District Of Columbia	4,289	72	-	-	742	12	530	9	5,561	93
Florida	90,875	1,518	10,659	179	47,428	792	64,659	1,080	202,962	3,391
Georgia	72,041	1,206	83,388	1,401	152,751	2,557	87,231	1,460	312,023	5,224
Hawaii	7,268	126	1,275	21	3,907	68	4,533	79	15,708	272
Idaho	7,430	130	3,748	63	8,704	152	5,759	101	21,892	383
Illinois	82,550	1,390	31,587	531	105,560	1,778	103,102	1,736	291,211	4,904
Indiana	41,775	699	21,145	355	51,794	866	38,895	651	132,464	2,216
Iowa	45,098	756	45,034	756	105,514	1,768	70,596	1,183	221,208	3,707
Kansas	19,242	333	11,270	189	29,594	512	21,616	374	70,452	1,219
Kentucky	27,679	463	37,938	637	58,578	980	28,052	469	114,309	1,912
Louisiana	25,305	423	9,681	163	23,182	388	19,481	326	67,968	1,136
Maine	7,493	125	1,886	32	4,639	78	4,987	83	17,119	286
Maryland	27,892	466	6,052	102	17,655	295	19,229	321	64,776	1,083
Massachusetts	35,444	592	1,570	26	14,743	246	23,283	389	73,470	1,228
Michigan	51,661	864	24,488	411	47,374	792	36,585	612	135,620	2,267
Minnesota	39,645	664	29,206	491	69,818	1,169	52,621	881	162,084	2,713
Mississippi	22,567	390	35,782	601	56,795	980	27,642	477	107,004	1,847
Missouri	43,364	731	70,791	1,189	121,874	2,055	63,476	1,070	228,714	3,856
Montana	6,976	117	6,747	113	12,430	208	6,435	108	25,841	432
Nebraska	21,146	354	13,747	231	45,944	770	33,459	561	100,549	1,685
Nevada	9,338	156	107	2	2,551	43	4,408	74	16,298	272
New Hampshire	7,066	118	163	3	1,932	32	3,634	61	12,633	211
New Jersey	43,427	726	8,155	137	29,731	497	32,590	545	105,747	1,768
New Mexico	8,800	147	2,010	34	5,784	97	5,705	95	20,288	339
New York	89,008	1,488	25,662	431	62,050	1,037	62,565	1,046	213,623	3,571
North Carolina	56,422	944	19,037	320	57,241	958	48,391	810	162,055	2,711
North Dakota	5,503	92	4,233	71	7,961	133	3,788	63	17,253	289
Ohio	74,872	1,253	52,092	875	98,059	1,640	66,308	1,109	239,238	4,002
Oklahoma	23,953	412	45,341	762	70,896	1,218	33,629	578	128,477	2,208
Oregon	19,260	322	8,505	143	19,426	325	15,945	267	54,631	913
Pennsylvania	75,915	1,270	61,864	1,039	121,907	2,039	87,184	1,459	285,007	4,768
Rhode Island	5,398	90	69	1	1,447	24	2,816	47	9,660	161
South Carolina	28,283	473	16,826	283	33,381	558	22,068	369	83,733	1,401
South Dakota	6,228	107	3,816	64	9,021	155	6,689	115	21,938	377
Tennessee	32,804	574	28,199	474	45,672	799	27,211	476	105,687	1,848
Texas	143,483	2,401	161,111	2,706	294,155	4,922	160,806	2,691	598,444	10,013
Utah	13,857	235	10,586	178	21,728	368	13,910	236	49,495	838
Vermont	4,061	68	7,643	128	10,117	169	3,594	60	17,772	297
Virginia	54,099	920	55,768	937	97,010	1,649	49,483	841	200,592	3,410
Washington	34,916	584	18,980	319	40,492	677	28,968	484	104,376	1,746
West Virginia	8,162	140	13,943	234	17,739	304	4,196	72	30,097	515
Wisconsin	43,651	731	40,525	681	83,086	1,391	53,956	903	180,692	3,025
Wyoming	2,861	48	1,006	17	1,823	30	1,102	18	5,785	97
United States	1,816,942	30,518	1,266,592	21,274	2,581,583	43,443	1,794,114	30,151	6,192,639	104,112

Appendix 2: Industry Facts by State

State	Cattle and Calves on Farms	Sheep and Lambs on Farms	Hogs on Farms	Number of Operations with Beef Cattle	Number of Operations with Sheep and Lambs	Number of Operations with Hogs	Number of Operations with Broiler Chickens	Cash Receipts from Farm Marketings of Cattle and Calves	Cash Receipts from Farm Marketings of Sheep and Lambs	Cash Receipts from Farm Marketings of Hogs	Hired and Contract Labor Expenses for Livestock Workers
Alabama	1,260,000	N/A	140,000	22,000	-	750	2,263	\$ 331,749	\$ -	\$ 34,079	\$ 188,604,396
Alaska	14,000	N/A	1,400	100	-	40	22	\$ 1,877	\$ -	\$ 306	\$ 16,917,550
Arizona	1,020,000	150,000	167,000	5,300	5,000	380	101	\$ 637,016	\$ 6,102	\$ 43,057	\$ 172,442,542
Arkansas	1,810,000	N/A	200,000	25,000	-	1,100	2,408	\$ 494,614	\$ -	\$ 95,075	\$ 216,622,937
California	5,250,000	660,000	100,000	11,800	4,100	1,400	374	\$ 1,822,856	\$ 30,717	\$ 33,217	\$ 1,460,588,988
Colorado	2,600,000	410,000	710,000	11,600	1,600	1,200	291	\$ 3,058,056	\$ 113,923	\$ 175,882	\$ 380,831,867
Connecticut	52,000	N/A	2,900	N/A	N/A	N/A	96	\$ 8,168	\$ -	\$ 305	\$ 23,293,784
Delaware	21,000	N/A	7,500	250	-	80	778	\$ 7,465	\$ -	\$ 3,115	\$ 30,688,279
District Of Columbia	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	N/A	N/A	N/A
Florida	1,700,000	N/A	20,000	16,700	-	1,900	376	\$ 405,124	\$ -	\$ 3,226	\$ 390,538,014
Georgia	1,110,000	N/A	195,000	17,700	-	1,100	2,170	\$ 291,990	\$ -	\$ 62,244	\$ 227,974,523
Hawaii	150,000	N/A	15,000	850	-	230	59	\$ 24,305	\$ -	\$ 3,359	\$ 38,855,094
Idaho	2,110,000	210,000	36,000	7,400	1,200	660	235	\$ 1,183,446	\$ 19,439	\$ 9,586	\$ 325,073,124
Illinois	1,200,000	58,000	4,250,000	14,800	1,900	2,900	370	\$ 581,032	\$ 2,634	\$ 971,218	\$ 212,657,285
Indiana	860,000	50,000	3,600,000	12,700	2,000	3,400	594	\$ 253,482	\$ 2,070	\$ 923,843	\$ 258,916,776
Iowa	3,950,000	200,000	19,000,000	21,000	3,500	8,300	738	\$ 2,881,656	\$ 30,266	\$ 4,758,635	\$ 535,064,019
Kansas	6,300,000	80,000	1,810,000	26,000	1,200	1,500	270	\$ 6,239,795	\$ 5,455	\$ 421,076	\$ 405,670,295
Kentucky	2,300,000	40,000	350,000	38,000	1,400	1,500	909	\$ 574,379	\$ 2,206	\$ 83,315	\$ 428,384,286
Louisiana	890,000	N/A	10,000	12,400	-	720	410	\$ 191,011	\$ -	\$ 1,709	\$ 78,780,813
Maine	89,000	N/A	4,900	N/A	N/A	N/A	214	\$ 13,330	\$ -	\$ 782	\$ 56,612,963
Maryland	185,000	24,000	30,000	2,500	800	410	783	\$ 70,118	\$ 1,121	\$ 7,400	\$ 127,954,769
Massachusetts	43,000	N/A	11,000	N/A	N/A	N/A	114	\$ 8,223	\$ -	\$ 1,250	\$ 43,581,660
Michigan	1,070,000	78,000	1,080,000	7,800	2,300	2,700	1,088	\$ 384,943	\$ 4,274	\$ 250,885	\$ 314,809,874
Minnesota	2,400,000	140,000	7,200,000	14,400	2,500	4,400	1,195	\$ 1,095,348	\$ 16,489	\$ 2,046,905	\$ 509,844,505
Mississippi	960,000	N/A	365,000	16,000	-	680	1,478	\$ 150,134	\$ -	\$ 75,904	\$ 166,032,288
Missouri	4,250,000	83,000	3,100,000	52,000	2,200	3,000	978	\$ 1,216,820	\$ 5,142	\$ 876,503	\$ 331,148,418
Montana	2,600,000	255,000	175,000	11,100	1,500	490	150	\$ 1,009,050	\$ 17,533	\$ 42,246	\$ 193,653,163
Nebraska	6,350,000	71,000	3,100,000	18,300	1,300	2,200	321	\$ 7,068,679	\$ 10,144	\$ 728,702	\$ 439,243,951
Nevada	450,000	67,000	2,900	1,300	250	90	31	\$ 185,168	\$ 3,642	\$ 737	\$ 54,870,735
New Hampshire	39,000	N/A	2,400	N/A	N/A	N/A	120	\$ 5,349	\$ -	\$ 339	\$ 11,256,282
New Jersey	38,000	N/A	8,000	930	-	270	158	\$ 5,187	\$ -	\$ 940	\$ 45,936,591
New Mexico	1,540,000	120,000	1,500	8,200	2,900	400	86	\$ 999,419	\$ 4,923	\$ 235	\$ 248,862,114
New York	1,380,000	62,000	77,000	6,800	1,800	1,900	636	\$ 144,664	\$ 2,983	\$ 9,462	\$ 489,314,831
North Carolina	850,000	28,000	9,600,000	15,000	1,300	2,800	1,879	\$ 197,650	\$ 784	\$ 2,170,806	\$ 269,133,546
North Dakota	1,760,000	88,000	155,000	9,700	680	350	126	\$ 705,903	\$ 6,289	\$ 39,217	\$ 51,859,972
Ohio	1,280,000	130,000	2,010,000	17,400	3,400	3,700	1,027	\$ 356,646	\$ 11,204	\$ 434,662	\$ 277,877,090
Oklahoma	5,400,000	80,000	2,290,000	47,000	1,900	2,700	837	\$ 2,436,638	\$ 3,078	\$ 558,580	\$ 351,648,948
Oregon	1,240,000	220,000	17,000	12,900	3,200	1,300	398	\$ 517,238	\$ 12,686	\$ 5,433	\$ 218,690,289
Pennsylvania	1,590,000	100,000	1,140,000	12,300	3,800	3,600	1,499	\$ 493,627	\$ 5,795	\$ 182,141	\$ 370,350,536
Rhode Island	5,000	N/A	1,700	N/A	N/A	N/A	18	\$ 787	\$ -	\$ 287	\$ 2,306,407
South Carolina	380,000	N/A	225,000	8,200	-	810	512	\$ 126,404	\$ -	\$ 48,789	\$ 75,608,492
South Dakota	3,700,000	305,000	1,190,000	13,800	1,700	960	141	\$ 1,699,376	\$ 26,898	\$ 393,124	\$ 173,315,375
Tennessee	1,980,000	34,000	185,000	42,000	1,500	1,500	959	\$ 534,092	\$ 1,709	\$ 39,848	\$ 135,948,428
Texas	13,600,000	870,000	760,000	132,000	8,700	4,500	1,872	\$ 6,895,625	\$ 28,711	\$ 130,691	\$ 1,135,916,711
Utah	810,000	290,000	730,000	5,600	1,600	610	106	\$ 301,492	\$ 17,600	\$ 167,601	\$ 161,101,432
Vermont	270,000	N/A	5,000	N/A	N/A	N/A	149	\$ 51,667	\$ -	\$ 383	\$ 49,341,381
Virginia	1,470,000	75,000	365,000	22,000	2,100	1,200	738	\$ 395,946	\$ 4,884	\$ 61,841	\$ 222,792,659
Washington	1,080,000	53,000	23,000	10,100	2,400	1,500	467	\$ 605,380	\$ 2,227	\$ 5,562	\$ 370,253,311
West Virginia	415,000	33,000	5,000	10,700	1,300	1,000	334	\$ 113,545	\$ 3,911	\$ 970	\$ 38,014,218
Wisconsin	3,350,000	85,000	360,000	14,800	2,800	3,200	1,723	\$ 820,222	\$ 5,344	\$ 112,800	\$ 731,854,891
Wyoming	1,350,000	420,000	87,000	4,800	900	270	49	\$ 598,510	\$ 32,497	\$ 61,110	\$ 65,083,966
United States	94,521,000	5,747,000	64,887,000	765,350	83,130	75,450	32,668	\$ 48,189,201	\$ 442,680	\$ 16,077,382	\$ 13,126,124,368

Appendix 3: Consumer Impact

State	Initial Cost to Consumers	Extra Cost to Consumers	Population	June 2010 Unemployment Rate
Alabama	\$ 1,063,128,531	\$ 35,451,537	4,625,354	10.3%
Alaska	\$ 159,023,195	\$ 5,302,855	681,235	8.5%
Arizona	\$ 1,517,499,784	\$ 50,603,194	6,343,952	9.1%
Arkansas	\$ 571,823,738	\$ 19,068,278	2,830,047	7.5%
California	\$ 10,243,026,798	\$ 341,568,336	36,418,499	12.3%
Colorado	\$ 1,499,173,681	\$ 49,992,084	4,844,568	7.8%
Connecticut	\$ 1,007,267,073	\$ 33,588,757	3,493,006	8.5%
Delaware	\$ 267,084,029	\$ 8,906,298	861,804	8.7%
District Of Columbia	\$ 311,401,726	\$ 10,384,135	588,373	9.8%
Florida	\$ 5,318,925,509	\$ 177,367,156	18,182,321	11.2%
Georgia	\$ 2,581,594,989	\$ 86,086,966	9,509,254	9.8%
Hawaii	\$ 438,194,217	\$ 14,612,211	1,280,273	6.3%
Idaho	\$ 355,701,330	\$ 11,861,368	1,493,713	9.1%
Illinois	\$ 3,188,242,705	\$ 106,316,500	12,829,014	10.8%
Indiana	\$ 1,749,365,766	\$ 58,335,096	6,335,595	9.8%
Iowa	\$ 836,557,507	\$ 27,896,203	2,984,391	7.0%
Kansas	\$ 716,576,489	\$ 23,895,265	2,778,599	6.3%
Kentucky	\$ 1,122,823,464	\$ 37,442,150	4,234,999	10.2%
Louisiana	\$ 1,211,161,304	\$ 40,387,901	4,342,582	6.2%
Maine	\$ 410,171,746	\$ 13,677,762	1,315,069	8.4%
Maryland	\$ 1,651,100,796	\$ 55,058,311	5,618,250	6.9%
Massachusetts	\$ 2,095,152,880	\$ 69,865,861	6,469,770	9.1%
Michigan	\$ 2,494,120,388	\$ 83,170,001	10,045,697	13.7%
Minnesota	\$ 1,452,057,460	\$ 48,420,927	5,181,962	7.0%
Mississippi	\$ 549,807,296	\$ 18,334,108	2,918,790	10.7%
Missouri	\$ 1,533,092,396	\$ 51,123,152	5,874,327	8.8%
Montana	\$ 250,115,000	\$ 8,340,441	956,496	7.1%
Nebraska	\$ 453,175,406	\$ 15,111,780	1,770,896	4.9%
Nevada	\$ 664,524,869	\$ 22,159,529	2,546,235	14.0%
New Hampshire	\$ 410,396,216	\$ 13,685,247	1,312,298	6.3%
New Jersey	\$ 2,306,997,071	\$ 76,930,107	8,658,668	9.6%
New Mexico	\$ 474,142,579	\$ 15,810,960	1,962,226	8.1%
New York	\$ 4,900,358,404	\$ 163,409,439	19,428,881	8.2%
North Carolina	\$ 2,377,611,117	\$ 79,284,833	9,036,449	10.0%
North Dakota	\$ 183,099,750	\$ 6,105,722	638,613	3.8%
Ohio	\$ 3,007,365,877	\$ 100,284,904	11,473,983	10.7%
Oklahoma	\$ 767,254,969	\$ 25,585,211	3,606,200	6.3%
Oregon	\$ 1,027,468,304	\$ 34,262,396	3,735,524	10.8%
Pennsylvania	\$ 3,214,952,465	\$ 107,207,175	12,418,756	8.7%
Rhode Island	\$ 297,710,751	\$ 9,927,590	1,054,306	12.4%
South Carolina	\$ 1,246,657,008	\$ 41,571,556	4,403,175	10.4%
South Dakota	\$ 204,555,589	\$ 6,821,198	795,757	4.5%
Tennessee	\$ 1,664,973,812	\$ 55,520,926	6,144,104	10.3%
Texas	\$ 6,150,934,430	\$ 205,111,680	23,845,989	8.1%
Utah	\$ 578,534,596	\$ 19,292,061	2,663,500	7.0%
Vermont	\$ 163,908,852	\$ 5,465,774	620,738	6.7%
Virginia	\$ 2,087,442,507	\$ 69,608,747	7,698,738	6.7%
Washington	\$ 1,867,221,664	\$ 62,265,169	6,453,083	8.7%
West Virginia	\$ 372,733,524	\$ 12,429,331	1,810,358	8.9%
Wisconsin	\$ 1,387,397,621	\$ 46,264,752	5,598,453	8.2%
Wyoming	\$ 149,982,821	\$ 5,001,391	522,833	7.2%
United States	\$ 80,553,590,000	\$ 2,686,174,335	301,237,703	9.5%

## Appendix 4: Questions and Answers About the Study

**1. What is defined as “meat” in the study?**

Meat as defined in the study is a combination (weighted average) of all edible meats including beef, pork, lamb, poultry and offal.

**2. What jobs are included as “direct” and what are included as “supplier” and “producer?”**

This is a model of the meat processing industry, so direct jobs include people working in meat packing, processing, meat wholesaling and meat retailing. Suppliers to the processing industry include livestock producers (farmers and ranchers) as well as firms that provide equipment, utilities, transportation, packing supplies, business services, etc. to the processors, wholesalers and retailers. A “producer” as defined in this study is a livestock producer – a farmer or a rancher.

**3. What does “induced” economic impact mean?**

Induced economic impacts are those effects that are due to the re-spending of income by people working as direct employees of the meat processing industry or by those working for supplier firms. This would include their spending on things like housing, utilities, entertainment, cars, etc. It is what is commonly called the “multiplier effect.”

**4. The impact in some states seems counter-intuitive. For example, how can Connecticut, a small agricultural state, lose more producer jobs than say, Wyoming, which is typically considered a “big” agricultural state?**

Production jobs do not necessarily correlate with livestock production. In this case producer jobs are those jobs directly involved in the farming of meat animals. These could be owner-operators of farms or hired laborers. Jobs are counted in full-time-equivalent units so someone working half time on a ranch for example would be counted as half a job. In Wyoming where animals are produced on an open range, the amount of labor per dollar of output is very low, while in New England, where animals are generally produced on smaller farms, it will take more people (or units of labor) to produce the same output.

**5. When looking at job losses and economic impact by state, what are the key variables that come into play that affect that bottom line?**

There are a number of factors, but the most important are 1) the mix of industries in a state. For example, if a meat processor uses particular machines that are only produced in Ohio, then there would be a large impact in Ohio relative to the amount of meat actually produced there; 2) the mix of land, labor and capital availability in a state. (States with a lot of land and few people will have higher output per employee of livestock production.); and 3) the relative price levels in a given state. Higher cost states may generate more economic output without necessarily generating more “goods.”

**6. Does this model account for all aspects of the proposed GIPSA rule? If not, why?**

No, the model only accounts for the effects that the proposed GIPSA rule will have on the input price of livestock into meat processing companies and how that translates into higher consumer prices. If the rule changes the way in which companies do business – if it changes the amount of capital that they need to hold, the mechanization of processes, or the mix of animal types that they use – those effects are not included since the model is based on the current production system and technologies. It cannot control for these changes.

**7. Is the price elasticity of demand for meat a figure that is widely used in these kinds of models?**

Yes, the price elasticity is used to help determine how consumers will react to higher meat prices. Our elasticity estimate is roughly -0.44375 suggesting that a 10 percent increase in the retail price of meat will reduce demand by 4.44 percent.

**8. How will the proposed GIPSA rule affect different types of meat consumers' purchase?**

If the proposed rule increases prices to the extent that we believe, then consumers will react by purchasing less meat. They could react by purchasing either a smaller volume of meat, or by changing the mix of products that they buy – substituting cheaper poultry for more expensive lamb for example. The model looks at meat as if it is a single product so it can't determine these substitution effects.

**9. How can you predict the impact on consumers and their response?**

We know what when prices rise in a production system where there is competition the increased costs will be passed on to the consumer. We also know that for what economists call “normal goods,” higher prices lead to reduced demand. Because meat is a normal good, any increased costs from the proposed rule will lead to reduced demand. This model only examines the costs associated with the way in which processors must purchase meat from producers – particularly a reduction in the use of marketing agreements. This will add significantly to the cost of the livestock purchased by the processors – a cost that will be passed on and lead to roughly a two percent decline in meat sales.

**10. How can we be sure these numbers are accurate?**

No economic analysis comes with a guarantee of a future impact, and all models are based on assumptions and estimates. However, this analysis was built on widely accepted principles of economic modeling and in consultation with industry experts. All of the assumptions have been made available and are documented. If they are generally correct, then the results will be generally correct.



## **The Proposed GIPSA Rule Will Have Unintended Consequences Throughout the United States**

A regulation proposed by the Grain Inspection, Packers and Stockyards Administration (GIPSA) would, among other things, adversely affect packers' and their suppliers' willingness to use marketing agreements. Why? The proposed rule increases the risk associated with using marketing agreements because it would change longstanding judicial precedent and make it easier for a disgruntled producer to sue and win in a Packers and Stockyards Act lawsuit. In doing so, the proposed rule creates a disincentive for packers to use such agreements.

### **The Proposed GIPSA Rule Hurts Consumers**

- Currently, the people who live in the United States spend about \$80.6 billion on meat and poultry products annually.
- Under the proposed GIPSA rule, these consumers would be forced to pay about 3.33% - or \$2.7 billion - more for the same amount of meat and poultry they currently purchase.

### **Producers Will Lose Jobs and Face Volatility on the Spot Market**

- Over the last 20 years, livestock spot prices have been 500 percent more volatile than retail meat prices. Consumer prices for meat and poultry have been fairly stable over time, while livestock spot prices vary wildly by day or even hourly.<sup>1</sup>
- This volatility not only leads to higher producer prices, but makes production more difficult if producers are forced to sell livestock when market prices are low / or have to keep inventory in hopes of receiving a higher price.
- Conversely, more stable and predictable prices reached in marketing agreements reflect the innovation, care and work that producers put into their product. This rule will take those quality incentives away from producers.

### **The Meat Industry is an Integral Part of the United States' Economy**

- Companies in the United States that produce, process, distribute and sell meat and poultry products would lose more than 30,000 jobs if the proposed GIPSA rule were implemented. In addition, almost 74,000 jobs in supplier and ancillary industries will also be lost. These include jobs in companies supplying livestock and services to packers, distributors and retailers, as well as those that depend on retail meat and poultry sales.
- In this harsh economic period, every job is important. In fact, in the United States the unemployment rate has reached 9.2 percent. This means that there are already 14,139,762 people trying to find jobs in the country and collecting unemployment benefits. The GIPSA rule would add another 104,000 unemployed Americans to the jobless list.

### **The Economic Benefit of the Industry Spreads Throughout the Nation**

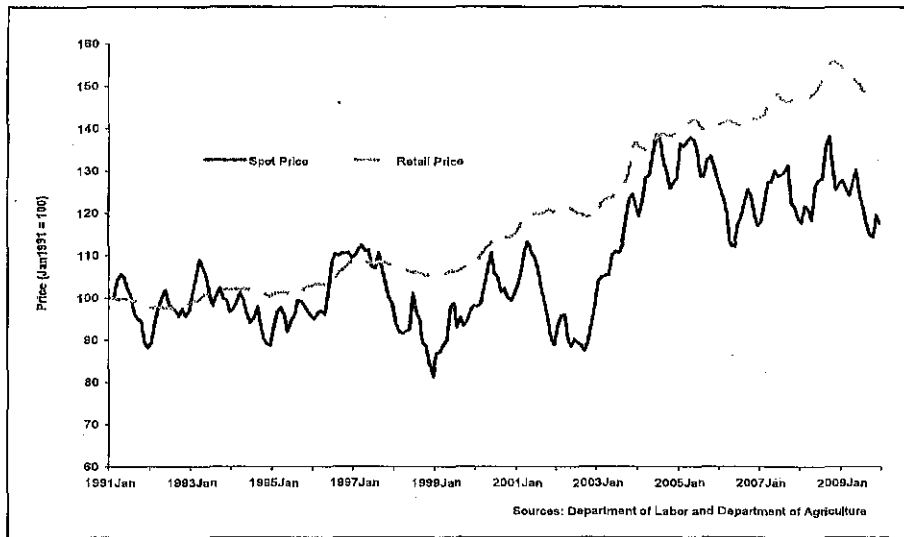
- Not only does the meat industry create good jobs in the United States but the industry also contributes to the economy as a whole. The proposed GIPSA rule could cost the nation as much as \$14.0 billion in economic activity.
- Producers would be especially affected, losing more than 21,000 jobs under the proposed rule. In summary, the proposed GIPSA rule raises prices to consumers, it does nothing to stem the exodus of producers from rural America; rather it would exacerbate the job losses in rural America.

---

<sup>1</sup> The standard deviation of monthly growth rates of spot prices was 3 compared to 0.6 for retail prices.

**The Proposed GIPSA Rule Will Cost Livestock Producers 21,000 Jobs<sup>1</sup>  
While Making it More Difficult for Them to Produce Quality Products**

A regulation proposed by the Grain Inspection, Packers and Stockyards Administration (GIPSA) would, among other things, adversely affect packers' and their suppliers' willingness to use marketing agreements. Why? The proposed rule increases the risk associated with using marketing agreements because it would change longstanding judicial precedent and make it easier for a disgruntled livestock supplier to sue and win in a Packers and Stockyards Act lawsuit. In doing so, the proposed rule creates a disincentive for packers to use such agreements.



**Marketing Agreements Help Producers Manage Volatile Day to Day Price Changes**

- ❖ Historically, “spot” prices for livestock have been 500 percent more volatile than market prices for meat. As the graph above shows, meat prices have been fairly stable over time, while spot prices for livestock vary wildly by day or even hour.<sup>2</sup>
- ❖ This volatility not only leads to higher meat costs, but makes livestock production more difficult because no one producer, packer, retailer, nor consumer knows what to expect from day to day. Producers who are forced to rely on a spot market may be forced to sell inventory when market prices are low, and will be forced to keep inventory longer than average in order to ensure a consistent flow of income.

**Higher Consumer Prices Will Reduce the Overall Demand for Meat and Meat Products, Leading to a Reduction of About 21,000 Jobs for the United States Livestock Producers**

- ❖ In these tough times with as many as 14,139,762 workers in the United States struggling to find jobs, removing 21,000 from the nation’s economy will only make matters worse. In other words, even though the proposed GIPSA rule raises prices to consumers, it does nothing to stem the exodus of producers from the state.

<sup>1</sup> Producer jobs include agricultural supplier jobs that are meat and poultry related.

<sup>2</sup> The standard deviation of monthly growth rates of spot livestock prices was 3 compared to 0.6 for retail meat prices. There is a direct relationship between the price of livestock and the retail price of meat. In fact, over time the two prices are almost perfectly correlated.



## **Increased Uncertainty Will Reduce Producers' Ability to Benefit from the Production of Quality Products**

- ❖ The prices reflected in marketing agreements reflect the innovation, care and work that farmers put into their product. The rule proposed by GIPSA will remove the incentive from farmers and ranchers to produce high quality livestock.

## USDA's Grain Proposed GIPSA Rule will Raise Food Prices and Harm Consumers in the United States

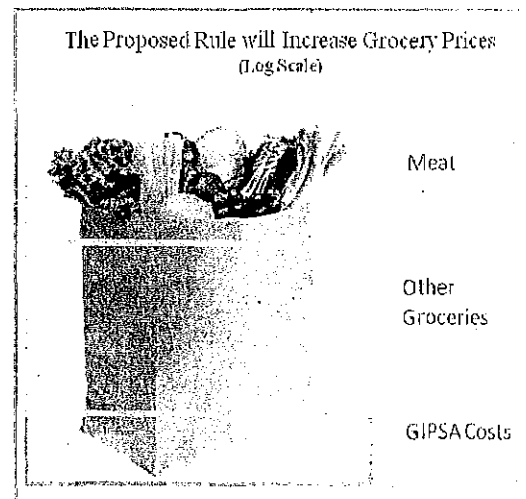
A regulation proposed by the Grain Inspection, Packers and Stockyards Administration (GIPSA) would, among other things, adversely affect packers' and their suppliers' willingness to use marketing agreements. Why? The proposed rule increases the risk associated with using marketing agreements because it would change longstanding judicial precedent and make it easier for a disgruntled livestock supplier to sue and win in a Packers and Stockyards Act lawsuit. In doing so, the proposed rule creates a disincentive for packers to use such agreements.

### The Proposed GIPSA Rule Would Dismantle Innovative Marketing Tools that Help Producers<sup>1</sup> and Processors

- ❖ Rather than helping struggling consumers during these difficult economic times, a new bureaucratic regulation proposed by GIPSA will lead to higher consumer prices for meat and meat products.
- ❖ The current meat production system relies on mutually agreed upon marketing agreements to help both farmers and meat packers ensure a steady stream of quality products at a stable price.
- ❖ By forcing meat packers to purchase livestock on a volatile spot market, packers will have to increase their inventory carrying costs and will – over time – face higher prices for livestock.

### The Proposed GIPSA Rule Will Cost United States Consumers More Than \$2.7 billion per Year

- ❖ Currently, the people who live in the United States spend about \$80.6 billion on meat and poultry products annually.
- ❖ If the proposed GIPSA rule is implemented, these consumers would be forced to pay about 3.33% more for their meat and poultry products.
- ❖ This means that the United States's residents will have to pay an additional \$2.7 billion to keep eating the same amount of meat they currently do.
- ❖ As a result, they may be forced to make tough choices at the supermarket and elsewhere.



### The United States's Producers Are Harmed by the Proposed GIPSA Rule

- ❖ Rather than helping the United States's livestock producers, the proposed GIPSA rule actually harms them. In fact, it is estimated that about 21,000 of the United States' livestock producers will lose their jobs as a result of these bureaucratic rules.
- ❖ That is why organizations like the National Cattlemen's Beef Association and the National Pork Producers' Council – groups that represent livestock producers – strongly oppose this government interference in the marketplace.

<sup>1</sup> Producer jobs include agricultural supplier jobs that are meat and poultry related.



## The Proposed GIPSA Rule will Cost the United States 104,000 Jobs

A regulation proposed by the Grain Inspection, Packers and Stockyards Administration (GIPSA) would, among other things, adversely affect packers' and their suppliers' willingness to use marketing agreements. Why? The proposed rule increases the risk associated with using marketing agreements because it would change longstanding judicial precedent and make it easier for a disgruntled livestock supplier to sue and win in a Packers and Stockyards Act lawsuit. In doing so, the proposed rule creates a disincentive for packers to use such agreements.

Although supporters of the rule claim the proposal will help livestock producers<sup>1</sup>, a careful look at the economics of the proposal shows that it actually will lead to a decline in jobs, wages, economic activity, and tax revenues in United States. That's why so many organizations representing cattle, pig and poultry producers, as well as meat and poultry processors, oppose the rule.

The United States companies that produce, process, distribute, and sell meat and poultry products are an integral part of the nation's economy. Manufacturers, retailers, and distributors of meat and poultry products, provide well-paying jobs in the United States, and pay significant amounts in taxes to the State and Federal governments.

### Economic Impact of the Proposed GIPSA Rule in the United States

	Direct <sup>2</sup>	Supplier	Induced	Total
Jobs (FTE)	30,000	43,443	30,151	104,000
Wages	\$764,318,247	\$1,415,726,892	\$1,172,971,419	\$3,353,016,558
Economic Impact	\$3,838,461,850	\$6,350,851,492	\$3,795,974,168	\$13,985,287,510

	Federal Taxes	State Taxes	Total
Business Taxes	\$790,705,294	\$569,758,882	\$1,360,464,176

### The Meat Industry is an Integral Part of the United States' Economy

- ❖ Companies in the United States that produce, process, distribute and sell meat and poultry products would lose as many as 30,000 jobs in the nation. As many as 74,000 jobs in supplier and ancillary industries will also be lost. These include jobs in companies supplying livestock and services to manufacturers, distributors and retailers, as well as those that depend on sales to workers in the meat industry.
- ❖ In this harsh economic period, every job is important. In fact, in the United States the unemployment rate has reached 9.2 percent. This means that there are already 14,139,762 people trying to find jobs in the nation and collecting unemployment benefits.

### The Nation Would Suffer from a Decrease in Taxes Paid by the Industry

- ❖ Not only does the meat industry create jobs, it also generates sizable tax revenues. In the United States, the industry and its employees would pay about \$1.4 billion less in taxes to the State and Federal governments, as a result of the proposed GIPSA rule.

<sup>1</sup> Producer jobs include agricultural supplier jobs that are meat and poultry related.

<sup>2</sup> Direct jobs are those involved in the packing, wholesaling, and retailing of meat products. Supplier jobs include livestock and poultry producers, as well as those working in other companies that supply goods and services to meat packers, wholesalers, and retailers. Induced impacts come about when those working in the direct and supplier sectors spend their income in the regional economy.

# **ATTACHMENT I**

# Executive Summary

## An Estimate of the Economic Impact of GIPSA's Proposed Rules

Informa Economics  
Nov 8, 2010

### Background:

In September and October of 2010, Informa Economics conducted an economic impact analysis of the recently proposed GIPSA rules on behalf of the National Meat Association in cooperation with the National Cattleman's Beef Association, the National Pork Producers Council and the National Turkey Federation. The primary objective of the research was to discern how industry participants might respond to the rules if implemented and to estimate the economic impact that would result. The study utilized an approach that relied on extensive interviews with key personnel in all stages of the beef, pork and poultry supply chains. In addition, cost estimates were solicited from many of the major companies operating in the packing sector. This information was used to develop an estimate of industry-wide direct and indirect costs that might be expected as a result of the rule. Finally, this cost information was utilized in an input-output model of the US economy which enabled the research team to project how the rule might impact employment, GDP and tax revenue nationwide.

### Findings:

<b>Total Economic Impact of GIPSA's Proposed Rules</b>	
Job Losses	22,800
Annual GDP Loss	\$1.5 billion
Annual Tax Revenue Loss	\$359 million

### With Respect to the Rule Itself:

- Industry participants are nearly unanimous in assessing the rule language as being vague and poorly-defined.
- Affected companies have no guidance as to how stringently GIPSA will interpret and enforce the rule. This has created considerable uncertainty and fostered an environment where participants are predisposed to take extreme measures to minimize their exposure to the risks associated with the proposed rule.
- The provision that removes the burden for litigants to show competitive injury in order to seek damages is by far the largest area of concern. Informa finds that nearly 75% of the expected economic damage arising from this proposed rule can be tied directly to this provision.

## With Respect to Costs and Losses:

- Direct costs associated with rule compliance are significant but considerably smaller than the indirect costs that are expected to materialize. Direct costs encompass spending on people and systems needed to comply with the rule. Indirect costs refer to losses suffered by the industry from product quality deterioration and efficiency reduction.
- Direct one-time costs are projected as follows: Beef Industry, \$39 million, Pork Industry \$69 million, Poultry Industry: \$28 million.
- Direct annual ongoing costs are projected as follows:

<b>Direct Annual Ongoing Costs from GIPSA's Proposed Rules</b>	
Beef Industry	\$62 million
Pork Industry	\$74 million
Poultry Industry	\$33 million

- Indirect costs are largest in the beef sector where packers are likely to significantly reduce the use of marketing agreements that are currently used to supply premium and specialty beef as well as permit efficient plant throughput.
- Pork industry indirect costs arise from the presence of both marketing and production contracts. Changes to market agreements are expected to diminish product value and hamper plant efficiency. Changes to production contracts will foster production efficiency losses.
- Indirect losses in the poultry sector arise from lost efficiency in bird production that is expected to result from modification or abandonment of tournament pay systems.
- Annual indirect losses are estimated as follows:

<b>Annual Indirect Losses from GIPSA's Proposed Rules</b>	
Beef Industry	\$780 million
Pork Industry	\$259 million
Poultry Industry	\$302 million

- Ongoing and indirect costs will eventually be borne by consumers and producers, not packers. Our analysis indicates the following percentages of costs borne by producers: Beef Industry, 82%; Pork Industry, 56%, Poultry Industry, 19%.
- The rule is expected to have a significant impact on livestock auction facilities and commission agents. We find that the rule may reduce buyer participation at auction barns to the point where 150-200 of the smallest barns in remote areas may go out of business.

**With Respect to the US Economy:**

- The added costs are expected to result in reductions in industry output that will impact not only the meat and poultry industries themselves, but support industries and entities that rely on spending by meat and poultry industry employees.
- This research finds the following industry contractions:

<b>Industry Contraction Due to the Proposed Rules</b>	
Beef Industry	-494,000 head (-0.6%)
Pork Industry	-1.25 million head (-1.9%)
Poultry Industry	-55.2 million birds (-0.6%)

- Our full-economy model suggests that overall annual GDP could fall by as much as \$1.56 billion, with the losses divided among the various industries as follows:

<b>Lost Value Resulting From the Proposed Rules</b>	
Beef Industry	-\$837 million
Pork Industry	-\$335 million
Poultry Industry	-\$341 million
Livestock Auction Markets	-\$45 million

- Total job losses as a result of the rule are expected to total just over 22,800.
- Job losses will be highest in the production sectors for beef and pork with cattle ranching expected to lose nearly 2900 jobs while pork production could lose over 1900 jobs.
- Other areas that will be particularly hard hit in terms of employment declines are agricultural support activities as well as the retail and foodservice sectors.
- As a result of the decline in economic activity, tax revenues are expected to decline by \$359 million, with 46% of that reduction occurring at the state and local level.

**With Respect to Timing:**

- The outcomes portrayed above will take time to reach their full levels. For example, it may take 2-3 years before the declining beef quality or poultry production efficiency reach the point that results in the economic losses described above.
- Industry participants will eventually find ways to adapt to the rules and thus the economic impact will be lessened at much longer time horizons. However, we expect lingering economic effects for ten years or more in all three industries.

**Heather Schoch**

**From:** Shafran, Ann [ashafran@courtesyassoc.com]  
**Sent:** Monday, November 15, 2010 9:26 AM  
**To:** Heather Schoch  
**Cc:** Greenbaum, Lindsey  
**Subject:** RE: CHANGE OF PLANS: SASS Form for Dec. 9 Grab & Go

Ladies,  
Our 8<sup>th</sup> board room is reserved from 11am – 1pm.

The address is 2025 M Street NW, Suite 800 (8<sup>th</sup> floor), Washington, DC 20036

Is there anything else I can do?  
Ann

Ann Shafran  
202-367-2485

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**From:** Heather Schoch [mailto:HSchoch@meatami.com]  
**Sent:** Monday, November 15, 2010 8:40 AM  
**To:** Shafran, Ann  
**Cc:** Greenbaum, Lindsey  
**Subject:** RE: CHANGE OF PLANS: SASS Form for Dec. 9 Grab & Go

At least 20ppl either conference or hollow-square setup... Thanks!

---

**From:** Shafran, Ann [mailto:ashafran@courtesyassoc.com]  
**Sent:** Friday, November 12, 2010 5:31 PM  
**To:** Heather Schoch  
**Cc:** Greenbaum, Lindsey  
**Subject:** RE: CHANGE OF PLANS: SASS Form for Dec. 9 Grab & Go

Let me check and get back to you next week. How many people?

Ann Shafran  
202-367-2485



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**From:** Heather Schoch [mailto:HSchoch@meatami.com]  
**Sent:** Friday, November 12, 2010 9:46 AM  
**To:** Shafran, Ann  
**Cc:** Greenbaum, Lindsey  
**Subject:** FW: CHANGE OF PLANS: SASS Form for Dec. 9 Grab & Go

Hi Ann,

See below. We're looking for a home for a Grab and Go meeting scheduled for December 9<sup>th</sup> over the lunch hour. Any chance Courtesy could host this? I remember Dot mentioned that the conference rooms were undergoing renovations....is all of that finished now? Let me know when you have a chance!

Thanks,  
Heather

---

**From:** Greco, Shannon N. [mailto:ShGreco@FDIC.gov]  
**Sent:** Friday, November 12, 2010 9:38 AM  
**To:** Heather Schoch; dot.hewitt@onpeak.com  
**Cc:** Jason Watkins; Shonzia Thompson; Rebecca Miller  
**Subject:** CHANGE OF PLANS: SASS Form for Dec. 9 Grab & Go

Good Morning Ladies,

We've had a slight change in plans to our repertoire for the December 9 educational session. It was supposed to be a webinar that highlighted MACE but instead we are going in another direction and decided to make this a supplier focused Grab & Go Session. I need your help finding a location to hold this G&G, which we'd like to have from 12pm - 1pm on December 9.

Please find attached the completed SASS form for this event. Time is of the essence, so anything you can put together would be great. I can also send an email out to the Board to see if anyone is interested in hosting it (since I plan to see if any of our suppliers want to be a "speaker" at the event). Do you want me to do that or do you want to handle it from here?

If you have any questions, please let me know.

Sorry for the last minuteness of this request!!!

Thanks,

<<SASS Form - December 9 G&G.doc>>

11/16/2010

Shannon Greco

Conference Planning Manager

ARAMARK @ FDIC

L. William Seidman Center

3501 Fairfax Drive

Arlington, VA 22226

Ph: 703-562-2747

F: 703-812-7464

Work Cell: 571-436-5485

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**From:** Greco, Shannon N.  
**Sent:** Tuesday, September 21, 2010 11:54 AM  
**To:** hschoch@meatami.com; 'dot.hewitt@onpeak.com'  
**Cc:** Jason Watkins; Shonzia Thompson; 'Rebecca Miller'  
**Subject:** SASS Forms for Future Grab & Gos - PD Committee

Good Afternoon Ladies,

Please find attached completed SASS forms for our March & May Grab and Go sessions. I was told that SASS will be handling site selection for the Grab and Go's moving forward.

These are just 1 hour complimentary sessions that we hold around lunch time. We prefer an intimate space that can hold up to 20 people (like a Large Boardroom or smaller function space). We prefer a 12pm – 1pm timeframe but can be a little flexible so long as it sticks to lunchtime (1130am – 12:30pm; 12:30pm – 1:30pm okay). These venues do not have to be hotels so you can expand your facility search if necessary.

11/16/2010

In the past, I know you said that Coco Sala was interested in hosting one of these. I know Katie Hais with the American Hotel & Lodging Association expressed interest when I sent out an email to Leadership about a venue for the July G&G. These might be good starting points?

Anyways, let us know if you are able to locate venues/facilities for these programs.

Thanks!

Shannon

<< File: SASS Form - March G&G.doc >> << File: SASS Form - May G&G.doc >>

Shannon Greco

Conference Planning Manager

ARAMARK @ FDIC

L. William Seidman Center

3501 Fairfax Drive

Arlington, VA 22226

Ph: 703-562-2747

F: 703-812-7464

Work Cell: 571-436-5485

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11/16/2010

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# **An Estimate of the Economic Impact of GIPSA's Proposed Rules**

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Prepared for  
**National Meat Association**

Prepared by  
**Informa Economics, Inc.**  
**775 Ridge Lake Blvd**  
**Memphis, TN 38120**

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 **informa economics**  
an AGRA Informa company

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[www.informaecon.com](http://www.informaecon.com)

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## **1. Study Background and Objectives**

In the 2008 Farm Bill, language was included that called for USDA's Grain Inspection, Packers and Stockyards Administration (GIPSA) to develop new regulations dealing with several sections of the Packers and Stockyards Act of 1921 (PSA). The requests made by Congress relevant to GIPSA regulations were identified in Sections 11005 and 11006 of the 2008 Farm Bill. In Section 11005, the legislation addresses the need to make amendments to Sections 208, 209 and 210 of the PSA focusing on poultry and swine production contracts. That language lays out specific requirements regarding the right of growers to cancel contracts, disclosure about capital investment requirements, arbitration issues, etc.

Section 11006 of the Farm Bill talks specifically about writing new GIPSA regulations with respect to:

*(1) Whether an undue or unreasonable preference or advantage has occurred in violation of such Act;*

*(2) Whether a live poultry dealer has provided reasonable notice to poultry growers of any suspension of the delivery of birds under a poultry growing arrangement;*

*(3) When a requirement of additional capital investments over the life of a poultry growing arrangement or swine production contract constitutes a violation of such Act; and*

*(4) If a live poultry dealer or swine contractor has provided a reasonable period of time for a poultry grower or a swine production contract grower to remedy a breach of contract that could lead to termination of the poultry growing arrangement or swine production contract.*

GIPSA has responded with a set of proposed rules as required by Congress and our research effort is directed at estimating the economic impact of the proposed rules. The rules (collectively referred to as the "GIPSA rule") are currently open for public comment and may be amended before they

are implemented.<sup>1</sup> This work is based on our interpretation of the rules as they are currently written.

It seems that in writing their regulations, USDA/GIPSA focused heavily on number (1), above. Numbers (2), (3) and (4) are quite specific in their focus on poultry and swine contracts, and these are addressed by the proposed regulations (as in USDA sections 201.215, 201.216 and 201.217 of USDA's proposed regulations). Of course, one could argue that USDA goes way too far even on these issues. (For example, nothing in the Farm Bill section above mentions anything about poultry tournament contracts) Most of the remainder of GIPSA's proposed regulatory language, including banning packer-to-packer sales, disclosure of contract terms, applying base pricing standards to all producers, requiring justifications for differential pricing, seem to be derived from the requirement number (1), above. That provision requires GIPSA to write regulations with respect to determining whether an undue or unreasonable preference or advantage has occurred in violation of the PSA.

It is readily apparent that the intent of Congress was for the regulations not to go beyond some relatively specific poultry and swine contract issues.

With this as a background, a heated debate is now taking place within the livestock and poultry industry regarding the implications and economic impacts of these proposed regulations should they be implemented as written. Informa Economics, Inc. has been retained by stakeholders in the industry to conduct an economic analysis of the proposed rule and this report contains Informa's findings in this regard.

Specific tasks included in this analysis are as follows:

- (1) Conduct an information discovery on how industry participants would react to (or be forced to change business practices) due to implementation of the proposed rules. This involves information collection from the various segments of the major meat protein supply chains (packers, processors, producers/growers, livestock dealers, market agencies, retailers, food service providers and consumers) that would be affected by the rules.

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<sup>1</sup> The Federal Register posting of the proposed rules can be found at <http://archive.gipsa.usda.gov/rulemaking/fr10/06-22-10.pdf>

- (2) Provide an interpretation of how industry business responses would likely manifest in aggregate for beef, pork and poultry in complying with the rules.
- (3) Estimate the financial impact on producers and consumers in each supply chain (beef, pork and poultry) as a result of the industry changes that are likely to occur if the rules are implemented.
- (4) Assess the expected macroeconomic impact of the rules on jobs, GDP, taxes, industry size and meat/poultry industry growth.

As one might expect, the task at hand is extremely complex in nature as each industry stakeholder and particularly the packing sector can be impacted by one or more of the proposed rules and each entity could be affected differently than others in the same segment of the supply chain. Since several of the proposed rules are rather vague in terms of what changes will actually be required of industry participants and how the regulations might actually be implemented, quantification of the ultimate effects becomes somewhat open-ended and hazardous. In some cases, the vagueness of the rule and the lack of any similar precedent forced Informa to utilize the knowledge and expertise of the study team to make "best estimates" of the economic impacts.

## **2. Project Methodology**

In order to meet the objectives of the study outlined above, it was determined that an all-inclusive supply chain evaluation would need to be conducted for each of the major meat protein categories; beef, pork, and poultry. Section 4 contains a set of schematics that provide focal points for each supply chain as it relates to the elements of the proposed rules put forward by GIPSA. In some cases, the functional or operational impact of a particular rule will be restricted to one segment of the supply chain; in other cases it may impact several segments of the chain or the entire chain. We have attempted to be as specific as possible in identifying how the various rules will create the need for "new" or "altered" business practices and, on a best efforts basis, have estimated the costs associated with these changes at various transactional points in the respective supply chains.

## **2.1. Industry Interviews**

Gaining first-hand input from industry stakeholders was considered to be essential for identifying and measuring the financial and business impacts from the proposed GIPSA rules. Consequently, numerous telephone and personal interviews were conducted with stakeholders at all levels of each supply chain. Attempts were made to get specific input and data from companies and individuals representing all segments of each of the supply chains as well as from different sized operations.

A list of contacts was provided to Informa representing entities that had agreed in advance to participate. We supplemented that interview list with additional firms in order to get a broad cross section of primary input. In excess of 40 interviews were conducted by both telephone and in-person and the issues and concerns raised during these interviews were taken into consideration when developing the analytic approach for estimating the impacts and costs of the proposed rules. The information and business intelligence gathered through the interview process was extensive and essential to the results presented in this report. However, it is important to recognize that it was impossible to structure the interview process in a way that provided a pure random sample and thus the information gleaned from the surveys should not be used to make statistical inferences about industry populations in a strict sense.

## **2.2. Industry Cost Survey**

The proposed rules developed by GIPSA are extremely complex and consequently, identifying all of the business process changes or new business activities that would be required to comply with the rules was difficult. Part of that difficulty is that many of the requirements related to the rule do not have a "clear business precedence" so often companies were uncertain as to how they were going to deal with changes and the costs of those changes had limited basis for comparison.

Informa dissected the various elements of the proposed rules and organized these elements into categories. A cost matrix survey was developed and sent to several companies operating in the slaughter segment of each supply chain. The rules are directed at these companies and they will experience the most significant changes in business practices

and hence incur the bulk of the costs originating from this change. Follow-up discussions were held with many of these companies regarding the cost estimates they provided for the study. All industry participants were guaranteed that their cost estimates would be kept in strict confidence and only reported in aggregate if required in the study.

Informa industry experts were also challenged to provide estimates of the cost of implementing and complying with the various elements of the rule and these professional opinions were synthesized with those provided by industry participants. A consensus cost range for each of the various element categories was transformed into a cost-per-unit of production for each supply chain and then aggregated into an industry-wide cost. These per unit costs then became essential input into subsequent analysis such as the effort to quantify the rule's effect on industry size, economic activity, job creation/loss etc.

### **2.3. Desk Research**

Informa conducted a rather thorough literature search seeking other sources of industry data that might provide analytical guidance to the needed estimation process. It quickly became apparent that little effort has been extended to fully documenting costs within each of the supply chains. One can certainly expect that companies themselves have a relatively good feel for how costs break down in their own operations but this data tends to be proprietary and consequently, little is available in the public sector.

Informa does have experience in evaluating supply chain costs and conducted a major economic evaluation of the supply chain cost impacts related to the introduction of Mandatory Country of Origin Labeling (MCOOL). The industry cost estimates developed by Informa (formerly Sparks Companies, Inc.) were highly referenced by the USDA when formalizing and implementing rules related to MCOOL. Informa business and economic professionals that conducted that work are the same consultants conducting this economic impact study. They possess a high degree of knowledge and experience in the organization and structure of each of the supply chains. Several have many years of experience working with companies in each vertical and, as a result of this high intensity engagement with each supply chain, they possess the internal

knowledge and a "business feel" that is useful in validating the cost estimates provided by companies for this project.

## **2.4. Macroeconomic Modeling**

The final step taken in this study entails using the cost and economic loss estimates derived in the previous steps into a market-level supply demand model in order to estimate the lost production that will occur in each supply chain. This information then becomes input into a large scale input-output model of the US economy. This model allows us to make projections as to the effect of the rule on macroeconomic variables such as gross domestic product (GDP), employment and tax revenue.

In this report, Informa will focus on the results of this complex analysis process and strive to present it in a way that can be easily understood and that increases the readability of the document.

## **3. Important Elements of the Proposed Rule**

The proposed rule changes described above will require multiple changes to how US beef, pork and poultry industry stakeholders conduct their business activities. Some of the potential changes in business activities could actually lead to changes in a company's asset structure as well as a broader change in industry structure. An example of such changes would be the need for a business to divest of certain assets or possibly initiate changes within the business that would lead to more vertical integration.

A forensic review of the proposed rules was conducted and an attempt was made to identify all of the provisions that have economic significance and would require business process and supply chain alterations in order for supply chain participants to adhere to the rules as proposed. Informa finds the rules as written to be very open-ended and vague and thus a high degree of uncertainty exists at this point as to intent and interpretation from an implementation and enforcement perspective. Nonetheless, the study team identified the following broad areas described by the rule as those which have economic significance. Brief descriptions of each rule element are given below, but the reader is directed to GIPSA's document announcing the rule for the official interpretation.<sup>1</sup>

### **3.1. Justification of Differential Pricing**

An important element of the proposed rules is a requirement for documentation to justify differential pricing. This would put increasingly more scrutiny on packer purchases of cattle and hogs in an attempt to ensure that the prices they are paying for those animals are reasonable and fair. As it stands right now, packers are able to use considerable discretion in paying premiums for livestock that meet certain quality thresholds or discounts for animals that are of a poorer quality. Requiring documentation to justify those price differentials would place a significant cost burden on packers as they would be forced to invest in technology to adequately and accurately maintain written and/or electronic records.<sup>2</sup> A packer who chooses to absorb those costs may find themselves in an uncompetitive situation in the market and they will at least be forced to pass on those additional record-keeping costs to consumers and producers. Some packers may avoid these costs by simply paying one standard price for all animals, regardless of quality. Without the premiums associated with higher-quality cattle or hogs, livestock producers will likely put less effort into raising a higher-quality animal. The result of this would be poorer quality beef and pork products, which would translate into reduced consumer choice.

Packers expressed concerns about the interpretation of this provision. While the quality-related differentials may be relatively straightforward, packers worry about differing prices paid simply because the market has "moved". For example, a packer may pay more for animals in the afternoon than in the morning simply because he wasn't getting enough animals at the lower price to fill his kill schedule. It is unclear whether or not the packer might be subject to a violation of the Act in such a case. Documenting this type of market differential will be much more onerous for packers than the documenting quality-related differentials.

### **3.2. Prohibition of Livestock Transactions Between Packers**

The proposed rules include a stipulation that "packers shall not purchase, acquire, or receive livestock from another packer or another packer's affiliated companies." This is critical because this is a common practice

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<sup>2</sup> The risk also exists that GIPSA may not deem the packer's justification to be adequate, thus leaving the packer at risk for a violation of the Act.

among beef and pork packers and would significantly change the nature of business transactions in the livestock industry. Take, for example, a pork packer who also owns and manages a live production unit as well. Right now, in situations where that packer-producer is caught running with an excess of hogs in the supply chain compared to their processing capacity, they can sell those hogs directly to another packer at the prevailing market price. With the proposed rule, that kind of transaction would not be allowed and would be forced through a third party or independent livestock dealer. Given that an independent dealer is not going to take on that role without being properly compensated, there will be a transactional cost associated with getting those hogs from the initial packer to their final destination. The increase in costs will eventually be accounted for by higher pork prices at a cost to the consumer and lower live animal prices paid to producers. Similar situations can be found in the cattle and beef industry but are practically non-existent in the poultry industry because of the heavy influence of vertical integration.

Of special interest is the situation where producers may also be the owners of packing plants. There are several examples of this in both the beef and pork supply chains. For example, producers that own shares in US Premium Beef, which itself owns a large proportion of National Beef Packing, might be considered packers. Many of these producer/owners sell large volumes of cattle to other packers because those cattle do not meet the specifications that US Premium Beef requires. If those producers can no longer transact with other packers directly, a middleman would need to be inserted into the transaction. This would almost certainly lower the price that the producer receives.

### **3.3. Limits on Livestock Dealers and Packer Buyers**

Limits are placed on livestock dealers and packer buyers by the proposed rule. It states that dealers who operate as packer buyers must purchase livestock only for the packer that identifies that dealer as its packer buyer. Also, a packer may not enter into an exclusive arrangement with a dealer except those dealers the packer has identified as its packer buyers and reported to the Secretary of Agriculture on approved forms. It is common at many auctions, particularly at smaller ones, to find packer buyers bidding on cattle for multiple packers. This rule's intent appears to target the buying side of the market and encourage more bidders for those



animals, possibly increasing the likelihood that sellers are receiving a “fair market price”. However, if packer buyers were forced to purchase livestock for only one packer, it could be prohibitively expensive for packers to send individual buyers to every auction market. Over time, some business would dry up at the smaller markets because there would actually be fewer buyers attending those auctions. Livestock producers would then be forced to send their cattle to larger auction markets that are farther away. The increased transportation costs would be borne by the producer, thus lowering the effective price they receive for their cattle.

### **3.4. Restrictions on Poultry Tournament Systems**

One of the key ways that live poultry dealers have been able to promote innovation and investment from contract growers is through the use of the so-called tournament system, a method of measuring growers' performance relative to each other based on metrics such as feed conversion efficiency and livability that is commonly used throughout the industry. Compensation to growers begins with what is called a “base pay” which is a set price paid by the live poultry dealer. This is spelled out in a grower's production contract, and payment is usually made on a per live pound basis for the total liveweight amount that is harvested from the grower's farm. All of the growers who have birds harvested during the settlement period, which is typically one week, are scored against each other and are paid according to how well they performed against each other based on the aforementioned performance metrics. Premiums to the base pay are often given to growers with better-performing flocks in a settlement period while a grower may be docked for substandard performance. Premiums are also paid to some growers who have invested in new buildings or have made upgrades to existing facilities, regardless of how they perform relative to their peers during a settlement period. What this often means is that growers who continue using older houses and equipment are consistently compensated at a lower rate than their peers because they are not able to take advantage of specific premiums being paid for updated technology and because their birds often score lower than the growers with newer buildings and equipment that they are scored against as part of the tournament system.

Differing levels of compensation among growers during a settlement period has led to accusations of unfairness or unjust practices on the part

of integrators, or live poultry dealers. This issue was raised during interviews with several broiler growers who are currently on a production contract. A few different remedies have been offered to combat these alleged discrepancies and are included as part of the proposed rule. The first is a stipulation that all growers raising the same type and kind of poultry must receive the same base pay and that live poultry dealers are not allowed to offer a growing arrangement that contains provisions that reduce compensation below the base pay amount. The next is that live poultry dealers must rank growers in settlement groups with other growers with similar or "like" houses.

Informa's interviews with live poultry dealers revealed an incredible amount of concern about these stipulations, especially the first one that if discounts to the base pay were no longer allowed, it would have the effect of lowering the base pay for everyone and severely restrict their ability to give premiums to new growers or innovative ones to help them as they make significant capital investments in newer equipment and technology. Without those additional incentives, investment in new buildings and equipment would slow down considerably, which would slow down the rate of gain in feed conversion efficiency and livability the industry has enjoyed over the past few decades. The requirement for live poultry dealers to rank growers only in settlement groups with similar-type houses could also prove to be an onerous and costly endeavor. While all poultry houses are similar to one degree or another in that they provide shelter and climate control mechanisms as well as feed and water delivery systems, the age, size, and effectiveness of the buildings and equipment being used can vary greatly. The sturdy nature of poultry barns means that some are still in use 25 years or more after they are built. Differences in size can be stark between older and newer poultry houses. Older broiler houses, for example, may have been built at a length of 400 feet while newer ones are often built at a length of 600 feet. Even after accounting for size, the proposed rules seem to indicate that another step of grouping houses according to technology is necessary (i.e., climate control and feed/water delivery systems). Grouping growers in a settlement period based on like houses would be very difficult, and developing a system to do so would be very costly compared to the current system of grouping everyone together. The most extensive interpretation of the proposed rules could potentially break up a settlement group of 15 or 20 growers into 6 or 7 groups with no more than 2 or 3 growers apiece.

Discussions with live poultry dealers and contract growers revealed some interesting thoughts about the proposed changes to the poultry tournament system. Growers want a level playing field but do seem to be cognizant of the fact that integrators need to have a tool to encourage investment in newer buildings and technology to promote efficiency. Integrators are very concerned about this aspect of the proposed rules as it could mean a complete overhaul in the way they administer the tournament system, which would come at a significant cost both in up-front changes to how they restructure the system around growers with like houses and in lost efficiency over the long-term.

### **3.5. Changes to Poultry and Hog Contracts**

Beyond what might necessitate a total restructuring of the way poultry tournament systems are administered, the proposed rule addresses other issues of fairness between live poultry dealers, swine contractors and contract growers. Much of this was initially included in the 2008 Farm Bill, and Informa was given the impression during the interview process that many of the poultry integrators (GIPSA uses the less common term, "live poultry dealers") had already taken steps to accommodate these requirements. Some of these same requirements will apply in the pork industry, where entities designated as swine contractors enter into production agreements with swine growers in much the same fashion as poultry integrators contract with poultry growers.

While the estimated costs associated with restructuring poultry contracts to comply with these proposed rules is dwarfed by potential costs associated with loss of efficiency if onerous restrictions are placed on how poultry tournament systems can be administered, they are still significant and would be another added cost passed on to consumers over time.

One of the proposed rules requires that live poultry dealers provide adequate notice to a grower about an impending suspension of delivery of birds, which has become commonly known as the "90-day rule." Some contract growers have indicated that, in the past, there have been problems with live poultry dealers terminating the delivery of birds without warning, leaving growers in a financial bind after extending considerable effort to prepare for a new flock of birds and counting on that new flock

for the next round of income. Advance warning in the form of a 90-day notice that birds would not be delivered to their farm would allow growers time to try and respond by making other accommodations. In interviews with poultry companies, they maintain that these are very isolated occurrences and necessary decisions when some growers have failed to adequately prepare their facilities for a new flock of birds. The proposed rule does include language that gives integrators the discretion to suspend bird delivery during an "emergency," but some expressed concern that their judgment may ultimately be considered unfair.

Another grower concern that was expressed in the comment period in putting together the 2008 Farm Bill and was reiterated in interviews was that live poultry dealers have used coercion and threats of retaliation as methods of requiring additional capital investment on the part of growers to invest in or upgrade to newer facilities and equipment. These investments can occasionally be in the hundreds of thousands and sometimes millions of dollars. Furthermore, live poultry dealers have been accused of terminating contracts with growers soon after they have made these expensive investments, leaving them with much of the cost of that additional investment without a source of revenue, possibly leading to bankruptcy on the grower's part. Integrators deny that they have used any coercive tactics to encourage additional investment and insist that they have a vested interest in maintaining a long relationship with a grower who is willing to make those investments. Informa is not in a position to examine the accuracy of the claims from either side. One element of the proposed rule would make it more difficult for live poultry dealers to require additional capital investment so long as a grower's facilities are in "good working order" and if upgrades are necessary, live poultry dealers must be willing to extend a contract long enough for the grower to recoup at least 80% of their investment. It is Informa's perception that live poultry dealers are not strongly opposed to the rule on the surface, but recognize that if it is applied in its strictest sense it could severely limit new investment in facilities and technology. It might also make integrators financially liable for growers who make those investments but fail to back it up with the necessary labor and management skills to raise quality birds, thus reducing efficiency by adding potentially significant costs to the supply chain.

Similar to the last item is a provision in the proposed GIPSA rule to make sure a reasonable time period has been afforded growers to remedy a breach of contract that might lead to contract termination. This is the foundation behind the "90-day" and "80%" rules, and its intent is to address the reasoning behind why a contract may be terminated and ensure that a grower has been given a reasonable opportunity at compliance. The live poultry dealers that were interviewed indicated that they either already had in place or are currently developing and building what are commonly known as poultry improvement plans, which are simply methods of getting underperforming growers up to speed by having service technicians spend extra time and attention on these farms for several months or up to a year or more before making a decision to terminate the contract. A strict interpretation of the rule could possibly make live poultry dealers stick with underperforming growers for longer periods of time to avoid being accused of terminating a contract in an unreasonably short time period. Sticking with these growers would lower the overall efficiency and result in higher costs across the poultry industry.

Similar to poultry, swine contractors will also need to make a number of contract changes. These will parallel those described above for poultry, with the exception of the 90-day rule. Swine production contracts are not as prevalent as poultry contracts, but are still an important tool used in the supply chain. Interviewees had similar concerns about additional costs of compliance with the rule and indicated that production efficiencies could suffer due to the provisions that restrict the contractor's ability to require facility and equipment upgrades.

Some swine contracts have risk-sharing components that allow for ledger accounts where producers can essentially receive a loan from packers when the market price is below a reference or breakeven price and this loan gets paid back when prices are above the reference price. Producers place a high value on this contract feature. Some producers indicated that their business would not have survived the recent two-year stretch of negative margins without this type of contract. Packers benefit from this type of contract as well because it keeps valued producers operating at a less variable rate, thus limiting throughput risks. It is doubtful that packers could afford to finance these contracts for all of the hogs that they process. If they decide that offering such contracts to some, but not all

producers puts them at risk for a violation of the Act as a result of the proposed rules, then these contracts may disappear.

### **3.6. Abolishment of the Need to Prove Competitive Injury**

Perhaps the most contentious provision of the proposed rule is one that would no longer require producers who bring complaints under the Packers and Stockyards Act to show that the actions of the accused packer caused competitive injury. In many past legal proceedings damages have not been allowed because the plaintiffs have been unable to demonstrate that the actions of the defendant caused harm to competition in the market. With these rules, GIPSA is proclaiming that that condition is no longer necessary to find damages under the Act.

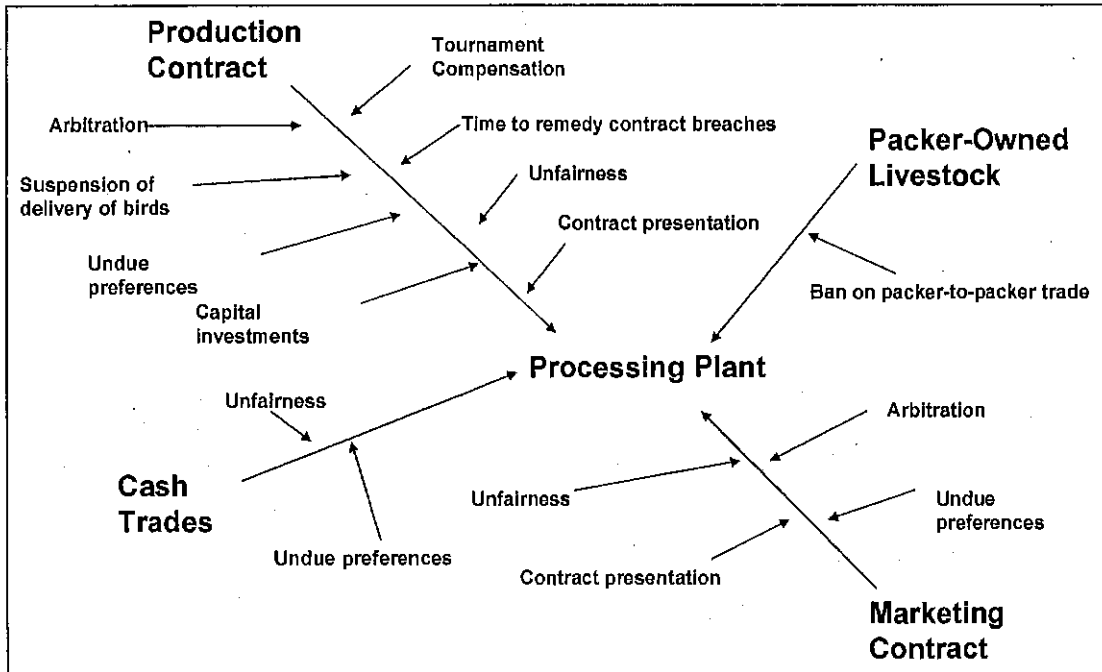
This provision was far and above the one that respondents claimed would cause the most harm. Nearly all interviewees from the packer community referenced the \$1.2 billion verdict that was rendered by an Alabama jury against Tyson Foods in 2004 in a case that alleged a violation of the Act.<sup>3</sup> The judgment was later vacated largely because the element of competitive injury did not exist. Needless to say, this past experience has led packer/processors to fear legal action brought by producers. It was clear that many thought their company's overarching concern would be to limit legal liability first ahead of all other company concerns.

Figure 1 below provides a visual representation of how the many rule elements will impact various business functions such as production contracts, cash transactions/trades, marketing agreements/contracts and packer-owned livestock. The segment of the supply chain that receives most of the focus is the livestock/poultry processing plant as most of the rules are directed toward issues related to the sale of live animals to slaughter/processing facilities.

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<sup>3</sup> <http://caselaw.findlaw.com/us-11th-circuit/1492709.html>

Figure 1: Proposed GIPSA Rule, Areas of Impact



#### 4. How Rule Elements Will Affect Industries

Not all of the elements that create a market or economic impact will occur in each supply chain. Many of the elements of the rules specifically requested in the 2008 Farm Bill will impact the poultry (chicken and turkey) sectors directly; some will have an impact on the hog sector and most will have no impact on the cattle and beef sector. Similarly, the rules that contain high levels of regulative authority related to livestock market transactions including a ban on packer-to-packer trade and restrictions on use of livestock buyers will impact the cattle and hog sectors in a major way but will have limited impact on the poultry industry. The rule dealing with market “fairness”, undue market “preference” and market “discrimination” will impact all meat protein sectors as it exposes businesses in these supply chains to potential litigation issues. A discussion follows of some of the key business practices and supply chain processes that will require change based on a literal interpretation of the proposed rules.

It is useful to recognize that in the poultry supply chain, it is only production contracts that will be affected. There is no cash market, no packer-to-packer issues and no livestock dealer issues. In the pork supply chain, both production and marketing contracts exist and will be affected and the packer-to-packer and cash market issues will apply. In the beef vertical, production contracts are not a factor but all of the remaining areas will be affected: cash trades, packer-to-packer, livestock dealers, marketing contracts.

#### **4.1. Cattle & Beef**

Figure 2 provides a view of the cattle and beef supply chain and focuses on those segments of the chain that will be directly affected by various elements of the proposed rules. Since the proposed rules are directed at business transactions between the sellers of cattle and cattle slaughter/processing operations, the supply chain economic impact will have its primary origins in the center of the supply vertical. Cattle sold by cattle feeding entities (large and small) will be directly affected as will other entities that assemble cattle for sale to packers such as dealers and auction sale operations. Packers that have direct or partial ownership of feedlot and/or backgrounding operations will be affected by the proposed rule that restricts packer-to-packer sales of live cattle as in many instances such cattle are not sold strictly within the packer's own vertically integrated system.

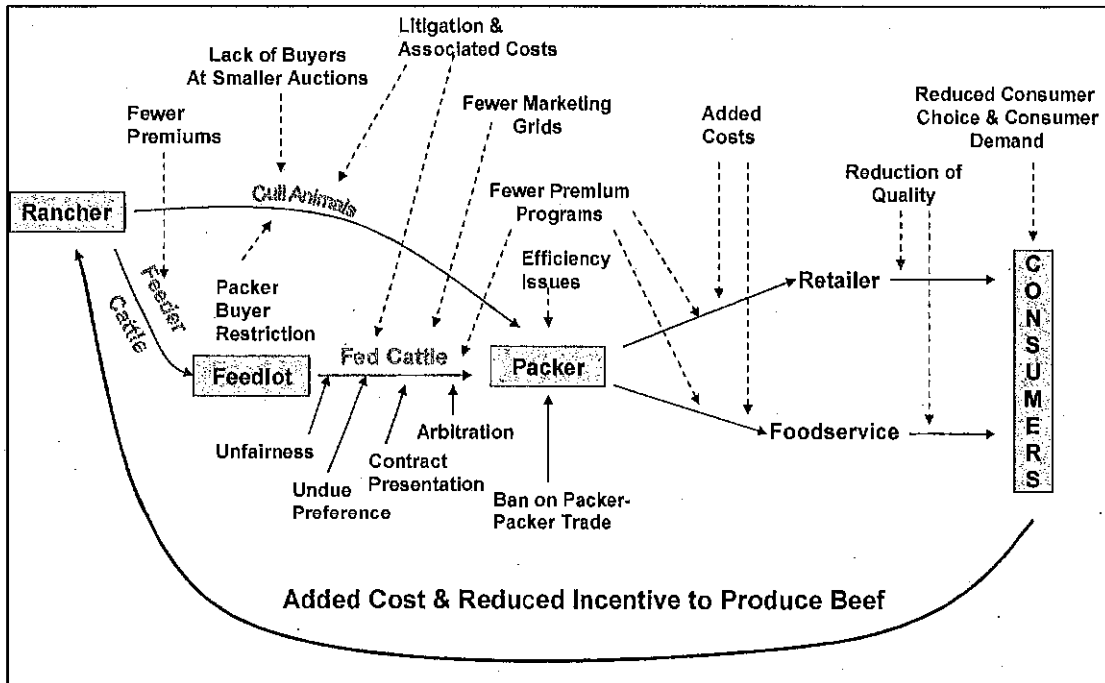
Given the broad nature of the proposed regulations, there will be supply chain impacts (both costs and sales prices) that affect stakeholders in the industry right from the cow calf/ranching sector all the way through the supply chain to consumers. In Figure 2 below, we attempt to reflect where these effects will occur and the nature of the business impact. In the end, implementation of the rules will add cost to the US beef supply chain as well as reduce incentives for industry participants to enhance quality and value added offerings. The methods by which businesses react to regulatory requirements will ultimately determine the magnitude of supply chain value loss that will occur.

Much of the direct impact of the rules as they relate to the beef supply chain will fall on the feedlot and the steer and heifer slaughter sector with likely pushback toward the cow-calf producer. Individual producers and



other entities selling cull cows and bulls to cow/bull slaughter operations will be directly affected by the proposed rules as well. New costs are anticipated as a result of the regulations that address market transactions between buyers and sellers of cull animals.

Figure 2: Proposed Rule Impact Diagram, Beef



In addition to the direct economic impacts on supply chain participants involved in the buying and selling of cattle for slaughter, changes in the rules will also have an indirect effect on supply chain participants who operate on both sides of the packer interface in the beef vertical. Of major interest and concern is whether implementation of the rules, as proposed, would seriously impact current cattle marketing agreements and other formalized quality-based programs that are built upon enhanced live animal and animal production specifications that provide premiums back to the producer. This study attempts to identify and quantify, where possible, both direct and indirect cost and revenue impacts related to the proposed rules.

The cattle and beef supply chain holds the most potential to be affected by the proposed rules as it is much more complex than either the pork or poultry supply chains. There are many breeds and cross breeds of cattle that results in a broad range of animal quality. Genetic variability, which can result in a wide variety of carcass attributes, has given rise to multiple breed-oriented programs. Further, many quality-oriented specification programs have evolved as supply chain participants attempted to differentiate beef products to meet a broad range of consumer tastes and preferences (differentiated demand).

In addition to quality differentiation in live animal and beef products, the beef supply chain has multiple transaction points with many animals that progress through the supply chain being bought and sold three or four times before the animals are slaughtered. Differentiated consumer beef demands result in a broad range of price premiums (and in some cases, discounts) relative to a benchmark cattle price. This mix of pricing differentials seems to be one of the targets of some components of the proposed rules. There is a notion that not all cattle being transacted receive "fair" market value and portions of the proposed rules are focused at regulating what "fair" means and that in itself creates huge issues for the industry to deal with.

The beef industry is also relatively concentrated as very significant economies of scale have driven the industry toward a structure that is dominated by a few large firms. The top four cattle slaughter operations in the US account for roughly 80% of the annual steer and heifer kill. There are other slaughter operations (mostly single plant firms) that compete in this segment of the beef supply chain and yet another group of operations that specialize mostly in the slaughter of cull animals (cows and bulls). Proposed restrictions on packer-to-packer cattle sales will be particularly onerous on several of the industry's slaughter operations.

The US cattle and beef industry has a modest degree of vertical integration with some slaughter operations also whole or part owners of cattle feeding operations. For those firms that are involved at multiple levels of the beef supply chain, the new rules would prohibit them from selling their feedlot cattle to slaughter operations other than their own. In order to avoid violating the rule, additional transportation costs might need to be incurred or there could be added costs for selling these cattle to a third party who

would then sell the animals to a slaughter operation. Companies that are integrated between the feedlot segment and the slaughter segment of the industry may find business reasons to become even more integrated or alternatively, to divest of assets in one of the business segments.

The schematic of the cattle and beef supply chain (Figure 2) and the schematic of the proposed rule elements (Figure 1) provide the broad basis from which Informa developed economic impact measures. The complexity of the rules and how they would impact the cattle and beef industry resulted in segmenting the economic analysis into multiple components. It was determined that there would be a host of one-time costs associated with putting in place processes and measuring mechanisms to deal with some aspects of the rule. There would also be on-going costs associated with these business process changes.

## **4.2. Hogs & Pork**

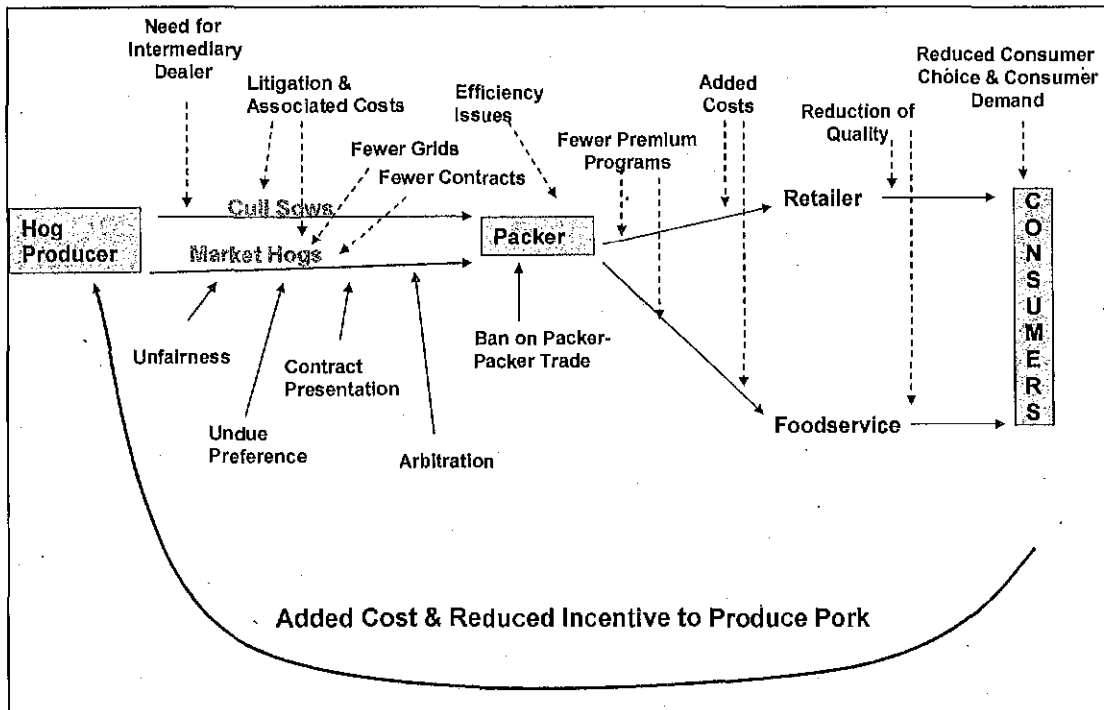
Figure 3 provides a very simplified schematic of the US hog and pork supply chain. The pork supply chain is much simpler than the one for beef, but it is much more concentrated and integrated. This creates the potential for enhanced regulatory impacts should the proposed rule changes be implemented. This is particularly the case as it relates to issues of competition, fairness and litigation issues.

As with the beef supply chain, the pork supply chain will be affected primarily at the interface of financial transactions between producers and slaughter operations. Certain features of the proposed rules will also impact producer-to-producer business arrangements as some independent hog feeding operations do have contractual relationships with growers even though they do not have direct financial linkages to a slaughter facility. Regulations relating to contracting activities and arbitration will have impacts on these business relationships that fall outside of packer transactions.

Vertically integrated hog systems will be impacted less than will independent hog production systems. The contracting of hog production whether by integrators or independents will be affected by those rules that relate to market fairness as well as arbitration. Market hog transactions as

well as the sale of cull sows and boars will be affected by the ban on packer-to-packer trade. Such a ban will require reorganizing businesses to either utilize all internally produced market hogs within the vertical system or, if this is not possible or feasible, sell such animals to independent third party entities. Such a requirement will add costs and inefficiencies to the flow of hogs to market. For cull animals, integrators will be banned from selling these culls (or market hog outliers) to other packers so, in essence, the rules will infuse another cost; another margin and added inefficiencies into that portion of the hog trade that involves sales of animals between slaughter entities not owned by the same firm.

Figure 3: Proposed Rule Impact Diagram, Pork



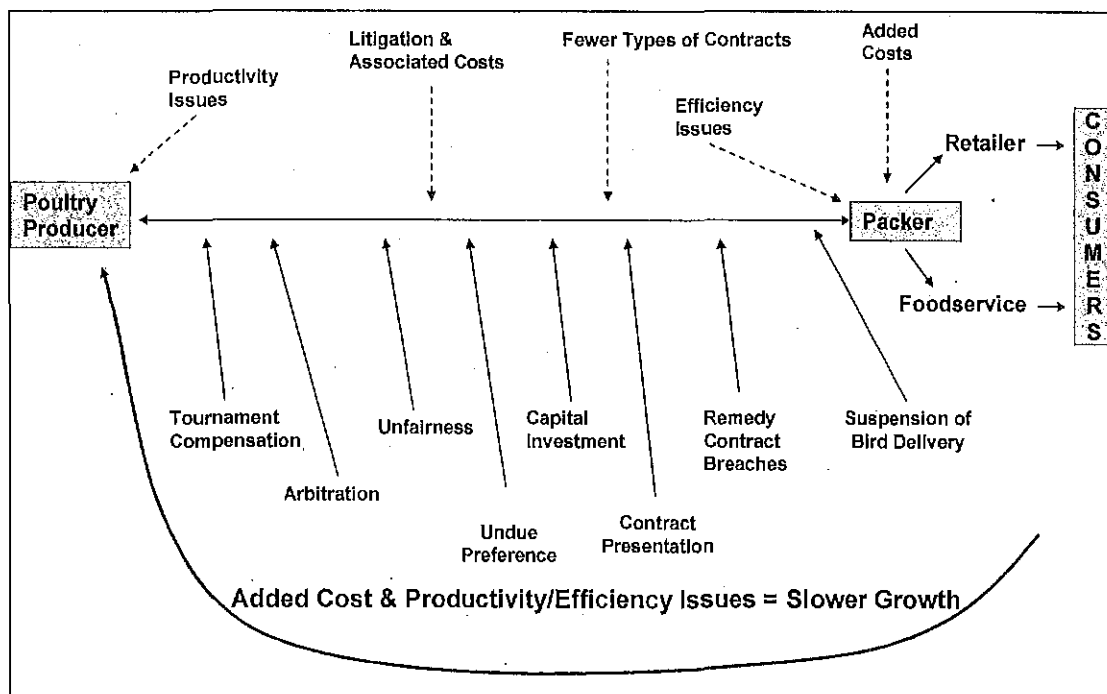
Due to the geographical dispersion of the US hog production sector and a rather complicated network of vertically integrated operations and small/medium/large independent hog production facilities, there will be industry organization challenges should the proposed rules be implemented as written. Packers do sell hogs to other packers but there are generally strong economic and geographical reasons why such trade takes place. Many integrated operations have contractual relationships

with sow slaughter operations to handle the disassembly of their cull sows. All of these business transactions will need to change and such change will lead to higher direct industry costs, lost efficiencies—and in all likelihood—reduced revenue opportunities for the seller of the sows.

### 4.3. Broilers & Turkeys

Figure 4 provides a very simplified schematic of the poultry supply chain and it is representative of both the broiler and turkey industries. In most cases, both the broiler and turkey industries are totally integrated with the poultry producer being a contract grower of birds for the integrated processing firm. Contractual arrangements between the grower and slaughter/processing operation dictate the flow of birds through the supply chain with the grower providing certain physical assets (housing and equipment) and labor/management while the integrator provides the chicks, feed, animal health and other production services. The grower is provided payment from the integrator with performance premiums being paid for exceeding peer-measured performance measures.

Figure 4: Proposed Rule Impact Diagram, Poultry



Many of the specific requests from Congress for additional rules as noted in the 2008 Farm Bill were specific to issues in the poultry industry. Clarification of existing rules and definitions were requested by Congress and several of the rules proposed by GIPSA specifically deal with these Congressional requests.

Most of the rules that are applicable to the poultry industry deal with elements of the contracting process and they seemed to be written with the intent of providing more flexibility for the grower in his dealings with the integrator.

Implementation of contract-oriented rule changes in the poultry industry may occur with limited cost to the contracting parties although they will lengthen out the time element for making contract changes associated with poor performance on the part of the grower. It is our impression that both broiler and turkey contractors desire to have mutually beneficial contractual relationships with their growers as both parties stand to gain if all parties are performing at the highest level of efficiency and productivity.

#### **4.4. Retail and Food Service Sectors**

At this point in time food retailers and food service operators appear to be largely unaware of the proposed rules and the possible ramifications for their operations. The rules have received very little if any coverage in the retail trade press and to date has been seen as an issue between packers and producers only.

This is unfortunate in that the rules could have a significant effect on retail and food service if either premium programs are reduced or if they are maintained but at significantly higher cost due to supply chain inefficiencies.

As of July 14, 2010, the Agriculture Marketing Service of USDA listed 65 Certified Beef Programs but these do not include many producer, packer and retailer brands that are not registered with USDA. The 2010 National Meat Case Study<sup>4</sup> indicated that 51% of beef packages in retail cases

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<sup>4</sup> <http://www.beefretail.org/CMDocs/BeefRetail/research/2010NationalMeatCaseStudy.pdf>

were branded items and it is now estimated that 40% of beef retail sales are accounted for by premium branded programs.

Freshlook data<sup>5</sup> indicates 2009 annual retail beef sales dollars of \$15.9 billion and annual beef sales in tonnage of almost 4.5 billion lbs. At 40% of sales the retail branded beef would account for 1.9 billion lbs as of 2009.

These branded programs at retail and food service have added incremental sales as the wholesale premiums are more than passed through to the consuming public and margins at retail have increased due to these premium prices as a significant number of US consumers show a willingness to pay a premium price for high quality meat products that deliver a great eating experience.

The 40% of beef sold in retail food stores is branded either under a premium brand such as Certified Angus Beef, a packer brand such as Cargill's Sterling Silver or a house or retail brand such as Publix Premium Certified Beef. These branded programs are dependent on the packer/suppliers ability to acquire enough cattle of the specified grade and quality to satisfy the retail demand for the product.

Should the rules reduce the number of cattle available that meet the required specifications some retailers may lose their branded program and therefore lose their competitive differentiation in the marketplace. Any reduction in qualifying cattle can be expected to increase the cost of the product, an added cost many retailers may be unable to pass through to the consumer due to the competitive nature of the retail marketplace. Either a reduction in program availability or increased product costs due to limited supplies of quality cattle or higher prices due to supply chain inefficiencies will have a negative effect on retail sales and on retail profit margins.

The same situation exists in food service where an increasing number of operators have moved to certified/branded programs and market those programs on their menus and in their advertising as a point of differentiation and a sales and margin enhancement strategy. In addition,

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<sup>5</sup> Sourced from FreshLook Data, <http://www.freshlookmarketing.com/>

it is the food service sector that is the current primary user of Prime, natural, grass fed, hormone free and other premium programs being demanded by and introduced to certain consumer groups. The recession of 2008-2009 has already had a devastating effect on white table food service operators and these sales, often dependent on prime and branded programs, are just beginning to recover from losses the past two years.

Pork and poultry are likely less subject to direct impacts of the rules at retail and food service in that typical supermarket and food service product needs have historically been more consistent and standardized than for beef. However the growing interest in natural and/or organic programs; hormone free, free range, and increasing state regulations concerning animal welfare are also creating carcass premiums that are inconsistent in definition, standard or state to state requirement. Until these standards and definitions are applied universally there is great risk that under the proposed rules these programs could be eliminated or watered down in an effort to avoid potential legal liability resulting in similar outcomes to those of beef but on a somewhat smaller scale.

The largest impact of the rules on the retail/food service chicken and pork categories is the potential negative sales and profit impacts of increased product costs due to increased inefficiencies in the various supply chains. As sales fall so these companies will experience declining labor requirements, reduced equipment efficiency, smaller sales per square foot, less fixed cost coverage and ultimately profits decline.

The retailers most at risk to the unintended consequences of the proposed rules are those retailers who have invested the most time, effort and money into providing their customers with high quality meat at competitive prices and are therefore the leading food companies in terms of sales, profitability and customer satisfaction. Those operators that have done the least to provide quality food at fair prices will see much less impact than the industry leaders.

## **5. Direct Costs**

Costs imposed by the proposed GIPSA rules were divided into two categories: direct costs and indirect costs. Direct costs are those that will require an outlay on the part of a company in its effort to comply with the



rules. An example would be new computer software or the hiring of additional staff. Indirect costs refer to those costs that will impact the industry in a broad way and are more likely to develop over time than at the rule's inception. Examples would include costs associated with losses in efficiency and declining product quality. Direct costs are further divided into two sub-categories: one-time and ongoing. This section provides a brief description of the direct costs considered.

Table 1. Specific Direct Cost Categories

	Beef	Pork	Poultry
<b>1. Cost Areas Associated with Differential Pricing</b>			
• Information systems for tracking	✓	✓	
• Contract review for compliance	✓	✓	
• Re-writing and Renegotiating contracts	✓	✓	
• Documentation of quality differentials	✓	✓	
• Documentation of market differentials	✓	✓	
<b>2. Cost Areas Associated with Submitting Sample Contracts to GIPSA</b>			
• Collecting Contracts	✓	✓	✓
• Obliterating identifying information	✓	✓	✓
• Transmission of sample contracts	✓	✓	✓
<b>3. Cost Areas Associated with Limits on Livestock Dealers</b>			
• Retaining dealers to work exclusively with the company	✓	✓	
• Additional internal labor	✓	✓	
<b>4. Cost Areas Associated with Packer-to-Packer Transactions</b>			
• Route transactions through broker or other third party	✓	✓	
• Additional transportation	✓	✓	
• Asset divestiture costs	✓	✓	
<b>5. Cost Areas Associated with Changes to Tournament Systems</b>			
• Restructuring Groups for like houses only			✓
• Rewriting contracts to eliminate discounts			✓
• Compiling and disseminating statistical information to all growers			✓
<b>6. Cost Areas Associated with Changes to Poultry &amp; Hog Contracts</b>			
• Research related to the 80% recoup rule		✓	✓
• Lost chicks due to complying with 90-day rule			✓
• Additional transportation costs associated with 90-day rule			✓
• Labor involved in providing written explanations and remedies		✓	✓
• Re-writing contracts to allow arbitration opt-out		✓	✓
<b>7. Cost Areas Associated with Increased Litigation Potential</b>			
• Additional legal staff	✓	✓	✓
• Court costs, filing fees, research and investigation	✓	✓	✓
• Restructuring to limit legal exposure	✓	✓	✓

**5.1. Cattle and Beef**

Table 1 above provides a listing of the specific business activities that were identified by the study team based on the team's knowledge of the cattle and beef supply chain as well as from input gathered from extensive

interviews with supply chain participants. The objective of preparing such a list was to provide a structure around which cost estimates would be made measuring one-time supply chain costs as well as cost estimates that would be ongoing. Industry stakeholders were asked to provide specific input relative to these business process changes and, while it was not possible to get data from all firms operating at the primary slaughter level of the beef supply chain, sufficient primary data was collected to provide a consensus estimate of the costs companies would incur to position themselves for complying with the proposed rules. The beef supply chain will incur all of the direct costs except those that relate to changes in the tournament system and those that relate to changes in poultry and hog contracts.

Asset divestitures may be the best option for some packers in response to provisions of the rule and a category was included to capture those costs. A feedyard owned by a packer but located far away from the packer's processing facility might need to be sold should the packer-to-packer sale ban be implemented.

## **5.2. Hogs and Pork**

Not unlike the cattle and beef industry, the hog and pork industry is going to be impacted by the various elements of the proposed GIPSA rules in a multitude of ways. Businesses will need to construct or upgrade information systems that will allow them to track individual market transactions. That might require installing new computer systems with software that will provide an automated way of documenting the payment of market price differentials. With the requirement to justify the payment of price differentials (premiums and/or discounts), comes the need to track these transactions and then harmonize those with quality and performance differentials in order to document that the prices paid are legitimate and consistent with the incremental value of the hog. It is easy to see that just putting in place the tracking mechanisms for justifying differential pricing will be a timely and costly activity.

Table 1 categorizes the major cost areas that will need to be addressed by the pork supply chain to comply with the proposed rules. The areas are identical to those listed for the cattle and beef sector, with the addition of costs associated with contract changes. The integrated nature of a portion

of the hog and pork sector suggests that not all market hogs will be impacted by some of the process requirements and in those cases, adjustments were made to the cost estimates to reflect these structural issues.

There are six major business components or functions that will require business process changes by the hog and pork sector. In addition to setting up processes for dealing with the differential pricing issue, efforts will be required to conform with the new requirement to provide sample production and marketing contracts to GIPSA. There may also be a need to review and/or re-negotiating current contracts that spell out in very specific terms the pricing elements of these contracts. Since many packers utilize packer buyers or dealers to procure some percentage of their ongoing slaughter requirements, costs will be incurred to rearrange this business activity. New personnel and new business arrangements may be required and failure to actually operate as effectively may result in increased costs associated with reduced slaughter plant efficiencies.

Hog slaughter operations will be affected by the ban on packer-to-packer transactions as presently some hog production operations owned in an integrated production system sell some or all of their production to other packers. This is normally due to geographic location of the hog production unit relative to location of the integrator's slaughter facilities. To minimize transportation costs and optimize overall revenues, these hogs are sold to the "competition". We believe GIPSA's concern is that packer-to-packer sales provide packers the opportunity to influence prices and/or have better price intelligence than others in the market. With mandatory price reporting on live hog sales, it is unlikely that such an advantage actually exists.

The packer-to-packer restrictions will also have a major impact on the merchandising and pricing of cull animals (sows and boars). Those involved in slaughter of these cull animals typically procure their sows in a variety of ways and have established procurement systems that allow for optimization of the value of these residual animals. Many integrated hog production systems sell their sows directly to sow slaughter operations or through a company-owned marketing firm. Such activity would be restricted and, while other business structures would surely evolve, costs associated with the cull segment of the industry would be increased.

Several companies demonstrated financial losses that they will endure if they must divest of subsidiary marketing groups that efficiently manage the accumulation and sale of cull animals and market hogs typically defined as outliers.

Many of the contract requirements imposed on poultry integrators will also apply to hog contractors. These entities operate in a manner similar to poultry integrators, offering production contracts to swine growers and then marketing those hogs to packers. In some cases, the contractors are packers. Costs associated with the 80% rule, providing written explanations and allowing arbitration opt-out are all applicable here.

The elements of the proposed rule that deal with competition and the added threat of litigation are high on the list of potential disruptive and costly factors associated with the proposed rules. Those in the business recognize that they might be subjected to litigation whether or not there is due cause and this threat may very well cause companies to change dramatically the way they are conducting business.

Finally, we included a category for the cost of asset divestitures if it is obvious route that a company would need to take upon rule implementation. For example, a pork packer may own a hog production facility in a particular geographic region but no processing plant. Historically that packer has sold the production from the facility to other area packers. With the packer-to-packer ban that could no longer occur and given that transport to the packer's own facilities is infeasible, the packer might determine that divestiture of the production asset is the best course of action.

### **5.3. Poultry**

Direct costs in the poultry area differ somewhat from those identified for beef and pork. Informa created three groups of cost categories that roughly correspond to the major areas of the rule that will affect poultry. The first cost area relates to those costs that companies will incur as a result of making changes to the tournament system. This includes things such as restructuring groups and providing statistical information to all growers. Changes in the pay system, such as having to eliminate discounts from the pay scheme, are included in this category.

Costs associated with contract changes are also grouped together. Survey respondents indicated that they will incur costs as a result of complying with the rule requiring producers have a reasonable opportunity to recoup at least 80% of their investment in growing facilities. Nearly all existing grower contracts would need to be rewritten and those costs are also included in this category.

The final category of direct costs is the costs which companies will incur as a result of the increased legal activity. In some cases staff attorneys will need to be added and in others more out-sourced legal costs will be incurred. Any costs associated with divestiture of assets in order to comply with the rule were included in this category. Table 2 provides a listing of the direct cost areas for poultry.

#### **5.4. One-Time Direct Costs**

The analysis conducted by Informa utilized input from industry stakeholders as well as internally generated cost estimates with consensus forecasts being developed. One-time direct costs as shown in Table 2 ranged from an estimated \$26 million for the poultry sector to an estimated \$69 million for the pork industry. The primary factor raising one-time costs for the pork industry relative to the other two species was costs associated with likely asset divestitures. The per-head one-time costs for the pork industry are about half those of cattle but the larger annual hog slaughter volume does raise the overall industry direct costs. For the poultry industry, one time direct costs are estimated at \$26 million with much of this related to litigation related preparations.

**Table 2. Meat Industry One Time Direct Costs**

<u>Supply Chain</u>	<u>Million \$</u>
Beef	\$38.7
Pork	\$68.7
Poultry	\$26.0
Total	\$133.3

## 5.5. On-Going Direct Costs

Table 3 provides estimates by species and in total for ongoing direct costs. These are costs that the industry will be burdened with year after year as business practices change to allow for compliance with the proposed rules. As can be seen, the ongoing direct costs are larger than the one time direct costs for each of the species and in aggregate, roll up to a total meat sector economic impact of \$168.7 million on an annualized basis.

**Table 3. Meat Industry Ongoing Direct Costs**

Supply Chain	Million \$
Beef	\$61.5
Pork	\$73.8
Poultry	\$33.4
Total	\$168.7

## 6. Indirect Costs

### 6.1. Cattle and Beef

Importantly, the proposed rules could have a major impact on the multitude of branded beef programs as well as other beef merchandising programs with quality differentials. Industry participants made it abundantly clear that to limit legal liability, companies in the packing sector would strongly consider reducing the number and types of AMAs that they are involved with. This in turn, would make it more difficult to reward producers for raising cattle that meet the specifications of branded and specialty beef programs. The US cattle and beef industry has spent the past 20 years improving the quality of the beef being brought to market and much of this improvement has been the result of proprietary business programs and supply chain alliances which have allowed added value from the programs to be shared by those creating that value. This typically involves premiums for the cow calf producer, the backgrounder, the feedlot as well as the slaughter operation. At the extreme, many of these programs might be threatened as the potential for litigation because of "fairness" or "preferential treatment" is elevated due to certain elements of the proposed rules that deal with competition.

All of the packer respondents indicated that the number of AMAs offered to producers would decline dramatically with implementation of the proposed rule. Also, potential premiums would be adjusted, likely downward, as the elements of marketing agreements would shift toward "the lowest common denominator" in order to avoid accusations of unfairness and to avoid the possibility of litigation. This would reduce the incentive for producers to go to the extra effort, management and costs of producing higher quality animals. Ultimately, this would jeopardize several of the branded meat programs that have been developed over the years to increase meat quality and improve consumer demand, particularly for beef and pork. But these higher quality animals do not disappear right away. In the short run, packers will "cream the coolers", doing more sorting of carcasses to meet the needs for the various branded programs. Over time, the lack of incentive to produce the higher quality animals will lead to more commodity-style beef and pork being produced, with overall average quality declining. Packers will assess the various branded meat programs to identify those providing them with the best return. To keep from diluting or losing those selected programs, they would tend to feed more of their own animals (increase packer ownership of livestock) to fit the branded program specifications.

#### **6.1.1. Branded Beef Programs**

Evidence from the interviews and surveys suggested that branded and specialty beef programs could be endangered if beef packers reduce the number and complexity of AMAs. Therefore, the study team evaluated the branded beef market to more accurately quantify the potential indirect costs that loss of these programs would imply.

In the 2008 Livestock Mandatory Reporting Final Rule, USDA defines "branded" beef as follows:

"The term 'branded' means boxed beef cuts produced and marketed under a corporate trademark (for example, products that are marketed on their quality, yield, or breed characteristics), or boxed beef cuts produced and marketed under one of USDA's Meat Grading and Certification Branch, Certified Beef programs."<sup>6</sup>

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<sup>6</sup> Federal Register /Vol. 73, No. 96 / Friday, May 16, 2008 /Rules and Regulations, page 28635

As of July 14, 2010, the Agricultural Marketing Service of USDA listed 65 Certified Beef Programs. But this is not a complete list of the branded beef programs existing in the US. There are several producer brands, packer brands and retail brands that are not registered with USDA. Schulz *et al* commented on a review of retail data from Freshlook that indicated there are more than 100 beef brands in US retail markets<sup>7</sup>. Plus, the branded product reported by USDA under livestock mandatory reporting is a subset of the total branded beef products sold in the US, being limited to negotiated sales for delivery within 0-21 days and product grading upper two-thirds of the Choice grade. At least 35 of the 65 listed branded beef programs allow beef from cattle grading Select or lower. Still, the data provides the opportunity for a partial analysis of the value of branded beef programs.

The weekly National Comprehensive Boxed Beef Cutout (LM\_XB463) provides cutout values for the various categories of boxed beef. The difference between branded boxed beef and non-branded beef<sup>8</sup> is shown below:

Since the start of mandatory livestock reporting in 2002, the premium at which branded beef has sold over non-branded beef (on a carcass cutout basis) has ranged from \$3/cwt to nearly \$25/cwt (Figure 5). On a per head basis, the calculated premium has varied from \$24 per head to \$190 per head. Over the data series, the premium has averaged just over \$72 per head.

Using average steer and heifer carcass weights, the average annual premium on boxed beef sales reported by USDA over non-branded beef is shown in Figure 6. With the weakening economy of the past couple of years, the premiums on higher quality beef sales have been narrowing. This is not only the case for branded beef, but also for the premium of Prime grade beef over Choice grade beef. Further, the spread between Choice and Select grades of beef, along with the spread between Choice

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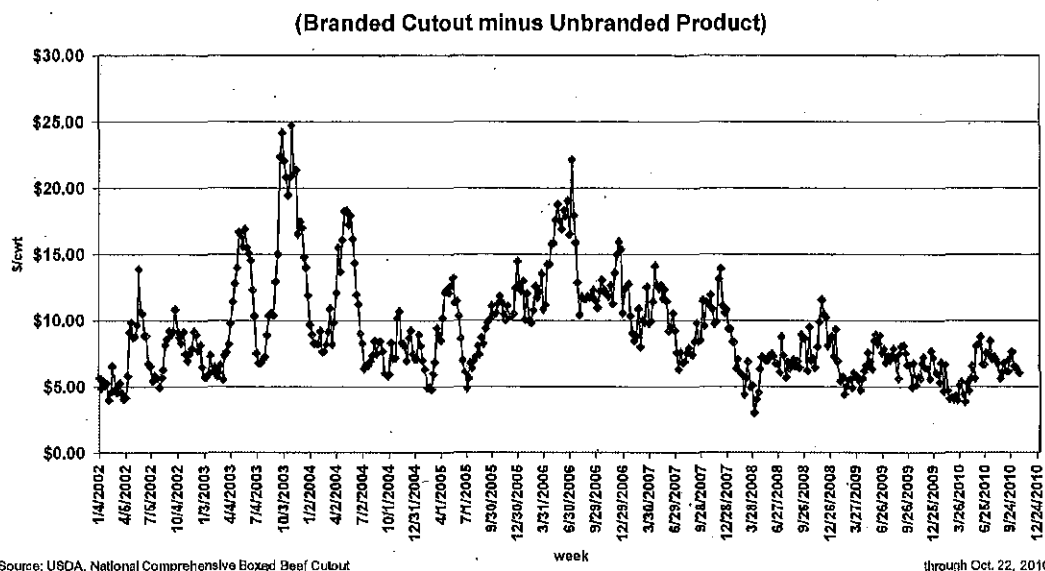
<sup>7</sup> Schulz, L.L., Schroeder, T.C. and White, K., "Value of Beef Steak Branding: Hedonic Analysis of Retail Scanner Data", Agricultural & Applied Economics Association 2010 AAEA, CAES & WAEA Joint Annual Meeting, July 25-27, 2010.  
[http://ageconsearch.umn.edu/bitstream/61596/2/AAEA%20Selected%20Paper%2010823%2007-15-2010\\_.pdf](http://ageconsearch.umn.edu/bitstream/61596/2/AAEA%20Selected%20Paper%2010823%2007-15-2010_.pdf)

<sup>8</sup> Includes sales of Prime, Choice, Select and ungraded boxed beef



grade and ungraded beef, have narrowed somewhat since 2007. Still, consumers have shown willingness to pay significant premiums on branded beef products. A 2007 study by Cattle-fax estimates the added value of premium brands at an average of \$500 million per year.<sup>9</sup>

Figure 5: Premium on Branded Boxed Beef Sales



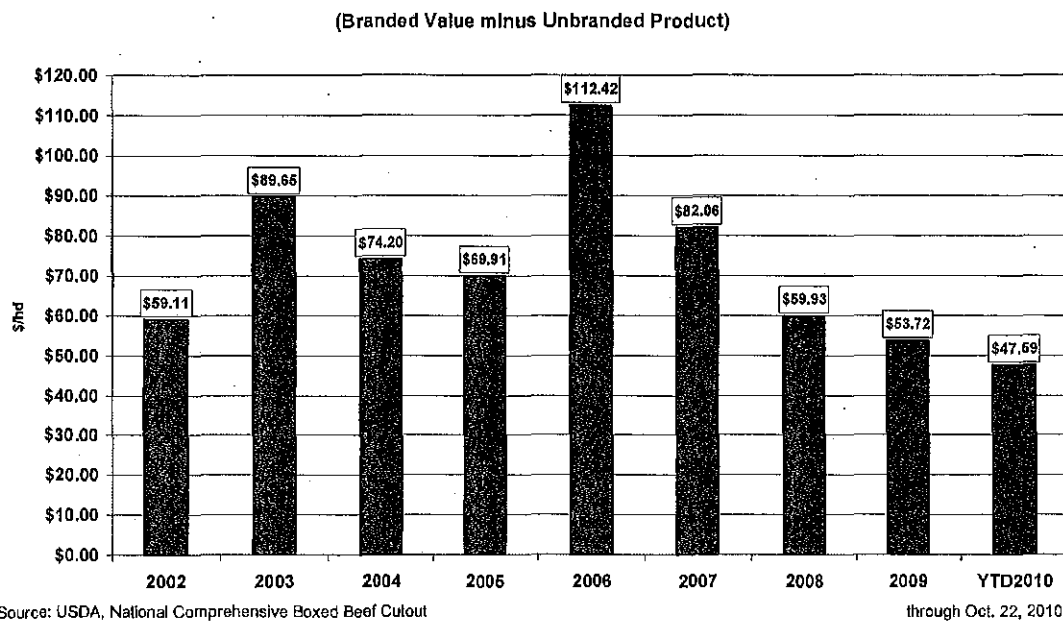
The figures reported by USDA are based on packer sales into the wholesale beef market. For producers involved in supplying cattle to packers for branded beef programs, a portion of the premiums achieved by the packers will be passed back to the producer. The amount will vary by program and by the quality attributes required by the programs. BEEF magazine recently published a listing of 33 producer alliances.<sup>10</sup> Where available, descriptions of desired characteristics, production practices, premium amounts and number of cattle involved in the programs were provided. In many cases, the average premium paid was described as variable by packer and grid being used. Where dollar amounts were reported, they varied considerably, with many running in a range from \$14 per head to \$90 per head. One of the largest programs for which some details are available was for U.S. Premium Beef, LLC. The number of

<sup>9</sup> Value of Quality Analysis, Cattle-Fax Research, July 2007.  
[http://www.cabpartners.com/news/research/cattle-fax\\_valueofquality.pdf](http://www.cabpartners.com/news/research/cattle-fax_valueofquality.pdf)

<sup>10</sup> 2010 Alliance Yellow Pages <http://beefmagazine.com/2010AllianceTable.pdf>

cattle in the alliance for 2009 was reported at 735,000 head with an average premium of \$31.85 per head. The number of cattle involved in the various alliances amounted to more than 4 million head, not including those programs where the numbers were not available or considered confidential. The feedlots involved in these various alliances are not the only ones eligible for premiums. There are at least 10 programs that provide post-harvest premiums back to cow-calf operators.

Figure 6: Annual Premium on Branded Boxed Beef Sales



Some of the largest premiums listed in the 2010 Alliance Yellow Pages involved the production of “natural” cattle, where the premiums could run from \$75 per head to \$130 or more per head. Creekstone Farms was offering premiums of \$35 per head for source and age verified cattle, \$125/hd for natural cattle, and \$135/hd for non-hormone treated cattle. As is the case with the Certified Beef Programs listed with USDA-AMS, the 2010 Alliance Yellow Pages is not an exhaustive list of producer alliance programs in the US beef industry.

The 2010 National Meat Case Study<sup>11</sup> indicated that the percentage of packages in retail stores carrying a brand had increased for beef from 31%

<sup>11</sup> <http://www.beefretail.org/CMDocs/BeefRetail/research/2010NationalMeatCaseStudy.pdf>

in 2007 to 51% in 2010. Store branding of ground beef rose to 37% in 2010, compared to 21% in the 2007 survey. There is also a considerable amount of branded beef sold through foodservice distributors. All of the major packers have branded beef programs, along with several of the mid-sized and smaller firms. While the proportion of fed beef sold as branded beef varies by company, Informa estimates that at least one-third of the beef from steer and heifer slaughter is sold under a branded beef program. The value added from the various branded beef programs, including organic beef and natural beef, is estimated at approximately \$750 million per year.

To reiterate, this is only a partial analysis of the value of branded beef programs to the US cattle industry. The available data does not cover all of the programs, producers and animals that are involved in producer alliances and branded beef programs. The premiums that are attained by cattle producers can be substantial. If packers reduce their reliance on AMA's, this could reduce the number of branded programs and/or the size of premiums paid by packers, resulting in a significant revenue reduction for producers as a whole. For the millions of cattle sold through these programs and the numerous producers who are working on improving the quality of their animals to better fit these programs and maximize their premiums, the losses in revenue would be several tens of dollars per animal and amount to several hundreds of millions of dollars in lost revenue to the industry.

## **6.2. Hogs and Pork**

Optimal use of slaughter facilities is considered to be a major issue for slaughter operations in the hog/pork sector. In many interviews, industry stakeholders stressed the importance of getting first shift slaughter operations off to a seamless start and with the daily volume that many top level hog slaughter operations have, efficiency of throughput is critical for keeping costs down.

Threats to the optimal utilization of hog slaughter and processing operations was a key concern of many of the industry stakeholders interviewed during the course of this study. Slaughter/processing firms were asked to provide their estimates of the impact of the proposed rules on their company's operational efficiency. These estimates covered a

rather broad range on a per head basis. In the end, a consensus forecasts was developed reflecting input from the impacted companies as well as business intelligence from the study team. It was determined that a 3% negative impact on operational efficiency would be a conservative estimate of the economic impact relative to efficient operations of most plants.

A roll up of costs associated with efficiency loss was estimated somewhat in excess of \$175 million.

While potential revenue loss in the pork sector due to quality issues will be substantially less than in the beef industry, it is still a major factor for the pork industry. There are many programs within the hog/pork sector where marketing agreements are in place and which pay differential prices for meeting certain quality specifications. Several slaughter/processing operations indicated that they may be required to scale back on premium based programs due to the added costs of documenting these and the uncertainties of the legal exposure that continuing these programs creates. Organic and natural programs operate under a higher cost structure than do other commercially based production systems and cost justification for such entities producing this product is possible but will occur with some added cost to the processor.

An estimate was made of the value creation resulting from various quality requirements and associated premiums and, like beef, the potential lost revenue for such programs was set at the half way mark between zero and the highest calculated cost. For the hog industry, this cost was estimated to be \$82 million.

### **6.3. Poultry**

Examining the potential cost impacts of the proposed rule on the US poultry industry requires a critical understanding of key components that have driven growth and efficiency over time. For this study, only potential costs to the broiler industry were examined in detail, but the turkey industry will face similar issues. Based on market-ready volume, broiler production is nearly seven times that of turkey production in the US. Since the proposed rule targets many aspects of the contractual relationship between integrators and growers, the economic impact on the

broiler industry will be considerably larger relative to the turkey industry because of differentiations in both the size and structure of each.

The broiler industry has grown at a phenomenal rate over the past three decades. Total annual liveweight production increased from slightly more than 15.5 billion pounds in 1980 to more than 47.6 billion pounds in 2009, representing an average annual growth rate of approximately 2.5%. Increasing vertical integration has extended decision-making within the industry across more elements of the supply chain, thereby helping drive down costs and improve product consistency and quality. Integrators have been able to accomplish this by embracing technological advances in both raising live birds and processing them after slaughter. While integrators have direct control over adopting technology at the processing level, their influence on adopting technology at the live production stage is mitigated by the fact that those are almost always grower-owned facilities and not under direct control of the integrator. Consequently, for there to be improvement in the live production process, integrators must provide incentives for contract growers to make the necessary upgrades to their facilities or enter into contractual relationships with new growers to build new facilities that are up to current standards. These improvements generally include, but are not limited to, larger and sturdier houses that take advantage of scale efficiencies and newer climate control technologies to protect birds from extreme temperatures as well as better delivery systems for both feed and water.

Elements of the proposed rule – such as changes to how integrators are able to use a tournament system to score growers' performance and increased scrutiny of new and existing poultry contracts – are very likely to alter the integrator-grower relationship in such a way that slows down the adoption of new technologies that drive efficiency gains and lower costs in the industry. In interviews with integrators throughout the broiler industry, there was a universal sentiment that, as it reads, the proposed rule would significantly increase the threat of litigation. Monetary incentives that are currently used to encourage innovation and investment on the grower's part to adopt new technology would be used with much more caution to try and avoid accusations of unfair or unjust payment practices. This would diminish integrators' ability to promote and encourage the purchase of newer houses or more efficient technology and would leave more of that decision-making to the discretion of contract

growers. Given the massive capital investment this often requires and the possibility of integrators being less willing to pay a premium to innovative growers for fear of litigation, investment in new buildings and upgrades for existing ones is expected to slow down considerably.

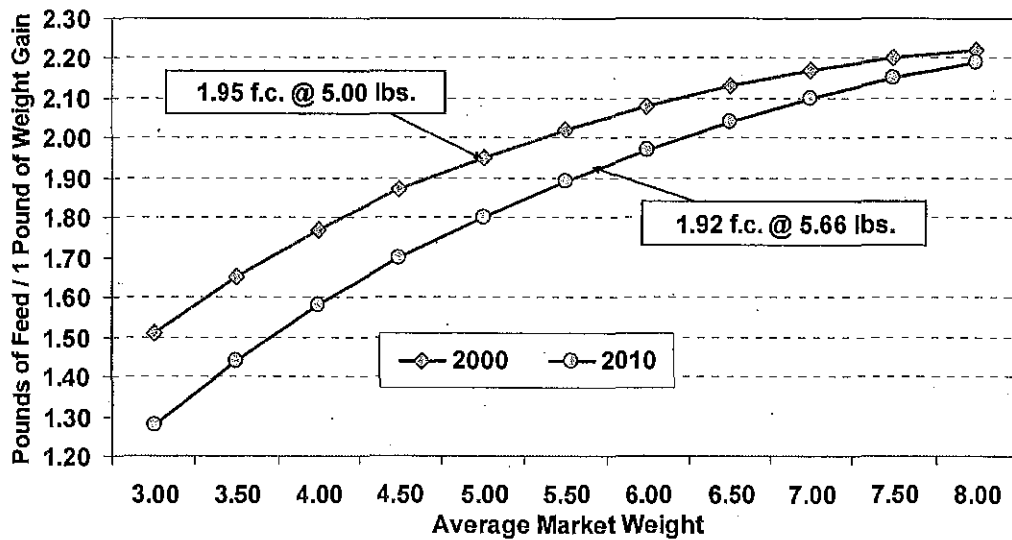
To understand exactly how this slowdown in investment in new buildings and upgrades for existing ones would impact efficiency, it's important to understand key efficiency metrics in the broiler industry and how they have evolved over time. One such metric is the average mortality rate for broilers. Estimates from the National Chicken Council suggest that the rate was relatively constant at around 5.0% from 1980 through 2000; however, estimates over the past decade have fallen to as low 4.0% in some years but have averaged closer to 4.5%. Continuing investment in newer buildings and technology should aid livability, but quantifying the impact of a slowdown in investment on mortality rates with or without the proposed rule would be highly speculative because of the erratic nature of recent estimates making it difficult to project a trend under either scenario.

A much better metric to focus on is feed conversion, which is the amount of feed required to produce one pound of weight gain for a broiler. According to estimates from the National Chicken Council, the average feed conversion ratio has declined from 2.05 in 1980 to an estimate of 1.92 in 2010. There is more to the story, however, as the average market weight for a broiler in 1980 was 3.95 pounds but has increased to an estimated 5.66 pounds this year. The reason this matters is that as a broiler gets heavier it becomes less efficient at converting feed into weight gain, masking an even greater trend towards efficiency than is implied by the 0.13 difference between 1980 and 2010.

Figure 7 below illustrates this by examining feed conversion estimates across a wider range of market weights and how it has changed over the past 10 years. The chart shows a definitive shift to an improving rate of feed conversion, which is directly attributable to ongoing investment in new buildings and equipment and upgrades to existing facilities. The average market weight for a broiler is no longer 5.00 pounds as it was in 2000, but this illustrates what the average feed conversion would be if that were still the case. Based on Informa estimates, broilers raised to exactly 5.00 pounds in 2010 would have an average feed conversion of approximately 1.80 pounds which compares to an average 1.92 feed

conversion for broilers weighing 5.66 pounds, the projected average market weight this year. This approach more accurately highlights improving trends in feed efficiency than simply looking at the difference in average feed conversions between two time periods.

Figure 7: Broiler Feed Conversion Estimates: 2000 vs. 2010

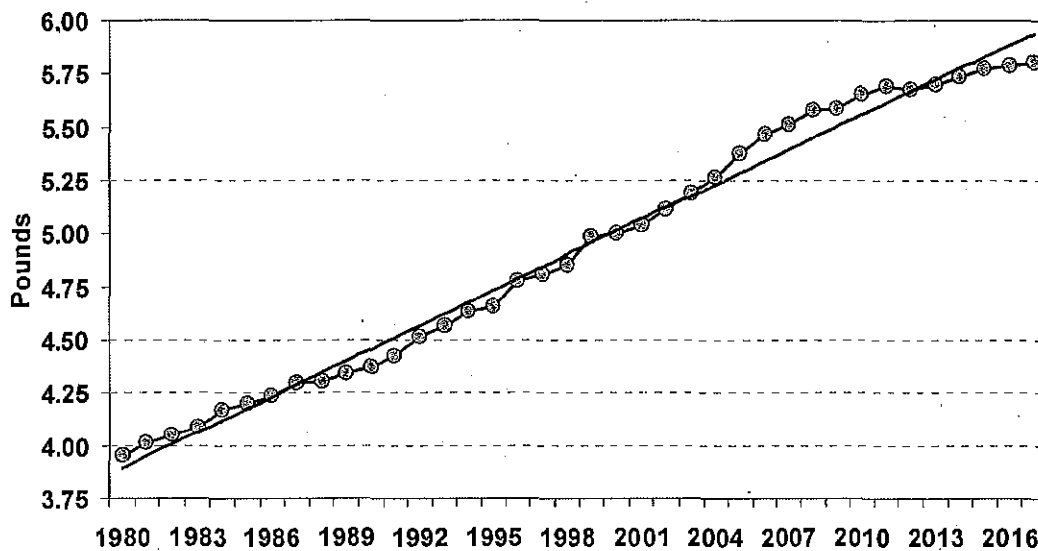


Source: National Chicken Council and Informa Economics estimates

The above exercise is important to consider because average broiler market weights are expected to continue trending higher over the next few years, and that is a necessary consideration when taking into account any change in average feed conversion with or without the proposed rule. Figure 8 below illustrates historical estimates for broiler liveweights supplied by USDA and includes Informa's baseline projections out to 2017. The outlook is contained to a 7-year period as this is the estimated length of time that efficiency would be impacted by the proposed rule before the necessary adjustments could be made to return the industry to its previous trajectory. As the graph shows, average broiler market weights have been increasing at an accelerated pace over the past few years but that is about to slow down with the current feed cost shock that is hitting the market. Broiler weights should move decidedly higher between now and 2017 but not improve at nearly the same rate as the past 30 years because of lingering strength in feed input costs. The average broiler market is expected to increase from an average of 5.66 pounds in

2010 to 5.81 pounds in 2017. The trend for broiler market weights over the next seven years is assumed to be the same with or without all of the elements of the proposed GIPSA rule. There will be a greater demand for broiler meat in the market, and the projected increase in market weights over the next few years will help supply that demand, even if it comes at a greater cost to integrators and is eventually passed on to consumers.

Figure 8: Average Broiler Market Weight



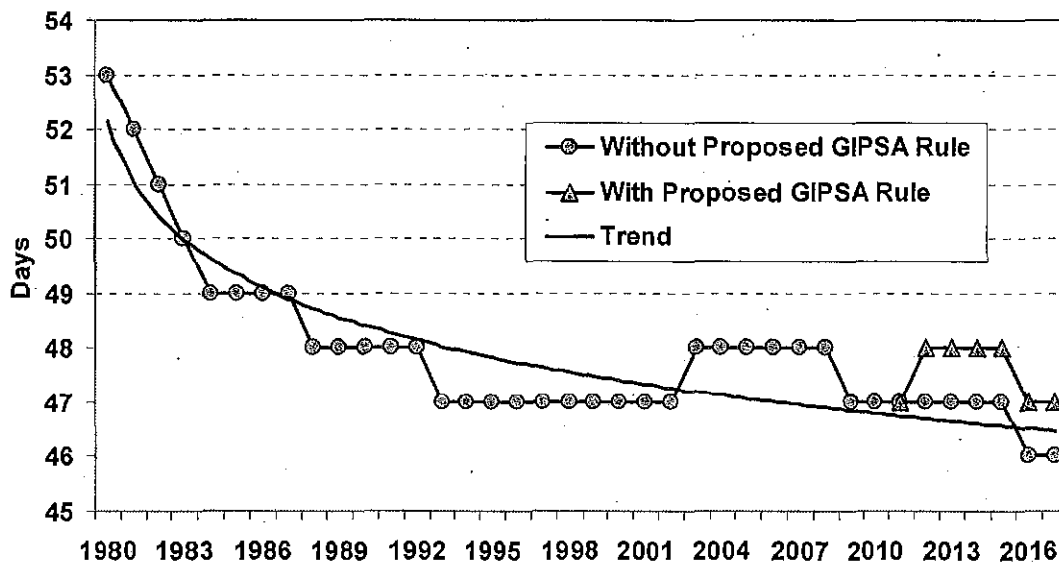
Source: USDA and Informa Economics baseline projections

Against a backdrop of increasing broiler market weights in line with Informa's baseline projections, reasonable estimates of average feed conversion can be made over the next seven years without the proposed rule. Average feed conversion in the broiler industry is expected to hold at 1.92 in 2011 but decline to 1.90 in 2012 and hold there through 2015. Informa estimates that the average feed conversion in the industry will decline to 1.88 for 2016 and 2017. If the proposed rule goes into effect next year, it will likely have a very small initial impact on feed conversion as existing industry infrastructure should be able to at least hold onto previous gains in efficiency. The slowdown in investment should catch up with the industry by 2012, however, and feed conversion rates should average between 0.02 and 0.03 points higher over the next few years compared to the current trajectory without the proposed rule. We believe the gap should narrow a bit by 2017 as the industry adjusts and finds new ways of promoting innovation and raising efficiency standards over time.



The lag in feed conversion efficiency would be most apparent in that it would extend the average time it takes a broiler to reach its market weight. There might not be a discernable impact next year, but by 2012 and continuing through 2017, the expected feed efficiency loss would translate into one extra day, on average, for broilers to reach their target market weight. Figure 9 below illustrates the expected trends for both scenarios with and without the proposed GIPSA rule in place.

Figure 9: Average Broiler Market Age



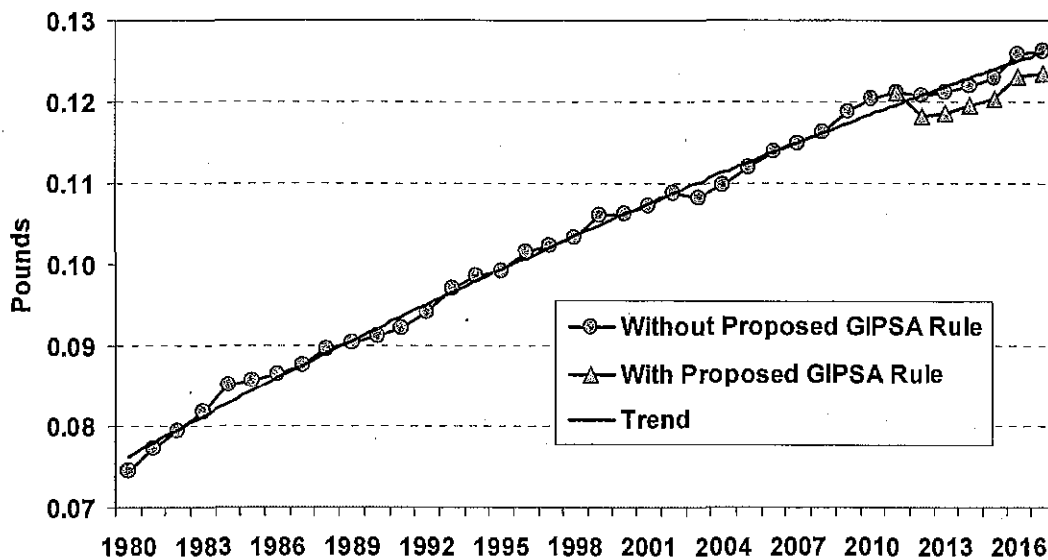
Source: National Chicken Council and Informa Economics estimates

Extending the length of time a broiler is on feed by one day may seem small, but that marginal decline in efficiency can be very expensive for an industry when looked at in aggregate. Estimating the impact on the average age that broilers reach their market weight and keeping in mind the baseline projections for average market weights in Figure 8, it is now possible to isolate a very important metric to measure efficiency in broiler production and that is to examine the average daily weight gain. This is the primary tool used to estimate potential costs to the broiler industry under the proposed rule.

Figure 10 (below) illustrates vividly the historical trend and forecast under alternate scenarios with and without the proposed rule. Up to this point, the trend has been rather consistent with very little deviation. Average

daily weight gain for broilers increased from less than 0.080 pounds in the early 1980s to more than 0.100 pounds by the late 1990s. This year it is expected to top 0.120 pounds for the first time. Without the proposed rule, the average daily weight gain for broilers is expected to average nearly 0.123 pounds between 2011 and 2017. The average is projected at slightly less than 0.121 pounds with the rule in place. Overall this translates into a loss of efficiency of nearly 1.6%.

Figure 10: Average Broiler Daily Weight Gain



Source: National Chicken Council and Informa Economics estimates

The final step is to translate what an expected 1.6% loss of efficiency under the proposed GIPSA rule would mean from a dollar standpoint per year and over the 7-year time period that is being examined. Some assumptions about production and costs have to be made to accurately estimate the total. This first involves total broiler liveweight production, which is expected to approach 48.8 billion pounds in 2010. The total is expected to increase to slightly more than 50.0 billion pounds next year and grow to more than 53.8 billion pounds in 2017. Average annual production is estimated at nearly 51.7 billion pounds for the next seven years. With an efficiency loss of nearly 1.6% under the proposed GIPSA rule, that translates into an added cost of producing a little more than 800 million pounds of broiler meat per year.

Ten years ago, broiler production costs per live pound generally averaged around \$0.25, but recent increases in corn and meal prices have pushed that average to nearly \$0.40 at times, and expectations are that higher feed costs are here to stay for the foreseeable future. Being generous and assuming an annual average live production cost of \$0.35 per pound, that would translate into an average total cost to the US broiler industry of nearly \$285 million dollars per year from 2011 to 2017. For the entire 7-year period, that comes to an aggregate cost of nearly \$2 billion. When the cost impact on turkey production is taken into consideration, the proposed rules would translate into a cost of more than \$300 million per year for the US poultry industry and an aggregate total of more than \$2.1 billion over a 7-year period. This takes into account what Informa believes to be the most likely scenario with the proposed rules. Under a best-case scenario, an efficiency loss of slightly more than 0.5% is expected, which would translate into an annual cost of more than \$100 million per year to the US poultry industry and an aggregate cost of more than \$700 million. Considering a worst-case scenario, an efficiency loss of more than 2.8% is estimated, which would translate into an average annual cost of more than \$540 million to the US poultry industry.

In aggregate, the costs to the poultry industry are estimated to be about \$362 million. These costs are less than the expected economic impact on either the pork or beef industries.

#### **6.4. Supply Chain Efficiency Costs**

Based on the discussion provided earlier in this document, there would appear to be a large potential cost across the three major meat protein verticals related to loss of supply chain efficiencies. These costs are estimated to roll up to give a total efficiency-related impact of \$880.9 million as shown in Table 4 below.

Table 4. Meat Industry Efficiency Impact

Supply Chain	Million \$
Beef	\$401.9
Pork	\$176.7
Poultry	\$302.2
Total	\$880.9

## 6.5. Quality/Demand Revenue Impacts

One of the primary concerns raised by industry stakeholders during the active debate on the costs and merits of the proposed GIPSA rules was the impact such rules would have on the broad array of livestock alternative marketing agreements (AMAs) and other quality-oriented programs that provide product differentiation in the marketplace. Informa analyzed the potential economic impact that changes or loss of these programs might have on the meat sector and the aggregate results are presented in Table 5. These impacts do not attempt to quantify the number of AMA's that might be altered or lost; they merely reflect an estimate of the economic impact that could occur depending upon how the rules were implemented and enforced and how supply chain participants might respond to the added burdens of cost justification and the threat of litigation regarding the premium price structures that exist to validate these programs.

The largest economic impact will occur in the beef industry as the beef supply chain has spent many years and significant investment dollars developing a broad range of quality-driven programs that differentiate beef products and which have highly differentiated pricing incentives and supply chain participant rewards. The pork industry also has worked hard to create value differentiation in many programs whether it be for Natural pork, Paylean free pork or for products differentiated for the export market.

Table 5. Meat Industry Quality/Demand Impacts

Supply Chain	Million \$
Beef	\$377.7
Pork	\$82.2
Poultry	\$0.0
Total	\$459.9

The study team was unable to identify an analytic process to reflect potential quality/demand impacts on the poultry industry related to the proposed new GIPSA rules. This does not suggest that some won't exist but the integrated nature and highly standardized production process for the poultry sector suggests that such impacts would be relatively small.

## 6.6. Livestock Auction Markets

Several interviewees suggested that the provision banning order buyers from working for more than one packer could have a significant impact on livestock auction barns throughout the country. Informa found this to be a valid concern and followed up by interviewing auction owners. It is well known that most barns auction a wide variety of animal types and any one individual packer is often only interested in purchasing a small subset of the animals that might be offered on any given day. Further, sales volumes at smaller, geographically isolated barns can be low which also reduces the number of animals in a daily sale that might be of interest to a particular packer. Thus a system has developed where order buyers contract with several packers to procure animals and then visit a barn on sale day to purchase animals according to each packer's needs and specifications.

GIPSA's proposed rule prohibits order buyers from purchasing livestock on behalf of more than one packer. It is immediately obvious that packer costs of animal procurement through livestock auction barns would be increased considerably if they were no longer able to "share" in the cost of putting a buyer in the smaller barns. Packer representatives were questioned about this during the interview process and were nearly unanimous in their conclusion that the increase in cost due to having a buyer work exclusively for them would be prohibitive and that they would very likely reduce the number of order buyers that they utilize. It then

follows that those remaining order buyers would focus on the high volume sales in attempt to minimize the packer's per unit cost of procuring animals in this fashion.

Informa judges this argument to be economically sound and believes that it would likely play out in the following fashion. If the rule were to be implemented as written, smaller auction barns in difficult to reach places would see an immediate decline in the number of buyers attending sales while larger, more centrally located sales would see less of an impact. Over time, prices at the smaller volume locations would decline due to the lack of competition as a result of having fewer buyers present. Eventually, livestock producers in remote locations would become discouraged by the lower prices and seek to transact their livestock at the larger barns where better buyer attendance results in higher prices. To the extent that the higher prices in large barns could offset the increased transportation cost that would be incurred to get them there, the producers would abandon their local sale barn and move animals to a bigger central barn. This sets off a death spiral as now smaller numbers will be available for sale each week and that will cause fewer buyers to incur the expense of attending. Eventually, the smaller sale barns will close their doors.

There is another angle on the proposed rule that could impact livestock auction barns. Some respondents felt like the provision that requires packers to document all price differentials combined with the potential for litigation posed by eliminating the need to prove competitive injury would cause buyers to move away from purchasing animals on a live basis. Packers see risk in purchasing animals live because judging the economic value of animals before they are dressed is an inexact science. They fear that paying less for one animal relative to another simply because the buyer "thought" the economic value would be less could expose them to a legal claim should the animal in question actually grade better than expected once it was in carcass form. Packers have, in other circumstances, moved away from live purchasing when the risk of misjudging an important economic characteristic is too great. An example is carcass pricing that is practiced in northern cattle feeding areas where muddy feedyard conditions can make it difficult to accurately estimate carcass yield. In fact, it would be rational to argue that on average we should expect packers to pay more for the same animal in carcass form than live simply because he faces less uncertainty in the carcass

transaction. Now, with the proposed rule packers have a new (and potentially very large) risk added to the live procurement process. It makes sense that would drive them in the direction of dressed pricing.

Movement to dressed pricing would imply that animals bypass the livestock auction segment of the marketing channel and move directly to the packer from the producer. Auction owners confirmed this as a feared unintended consequence of the proposed rule. This risk would likely affect all livestock auction barns regardless of size.

Both of these potential consequences (the movement away from live pricing and the death spiral at smaller barns) will have a negative impact on the livestock auction barn segment of the economy. We think that the economic impact will be far larger in small communities than in larger ones. In many smaller rural communities, the local sale barn is a hub of economic and social activity. Loss of this asset could be devastating for some small towns.

In an attempt to quantify the economic impact that the proposed rule could have on the livestock auction sector, Informa used data that is routinely collected by GIPSA in conjunction with its oversight responsibilities in this area. All livestock markets are required by law to post a bond with GIPSA and the agency makes this data available to the public. As of August 2010, GIPSA held bond for 1237 livestock market agencies in the United States. Very little public data on the value added by these institutions exists, but we can infer economic size from the amount of bond that GIPSA requires of each entity. Table 6 below provides a view on the size distribution of livestock auctions stratified according to their bond.

**Table 6. Size Distribution of US Livestock Auction Market Agencies and Firms Selling On Commission (Primarily Stockyards).**

Bond Size	Number	Total Bond	Estimated Volume (hd)
Greater Than \$500,000	3	\$2,327,650	735,893
\$400-\$500,000	3	\$1,360,000	429,968
\$300-\$400,000	12	\$4,137,500	1,308,082
\$200-\$300,000	40	\$9,672,500	3,057,987
\$100-\$200,000	297	\$36,920,510	11,672,517
\$50-\$100,000	627	\$44,768,794	14,153,773
\$20-\$50,000	125	\$3,738,000	1,181,779
less than \$20,000	130	\$1,455,000	460,002
Totals:	1237	\$104,379,954	33,000,000

Additional costs will arise from two distinct causes: (1) demise of smaller barns due to the "one packer per buyer" provision and (2) reduction in the number of animals transacted live due to the increased litigation threat. We believe the second of these causes to be dominant and consider the potential costs as follows.

Informa conservatively estimates that as many as 25% of beef cull animals that are currently transacted through stockyards could end up bypassing that segment due to a switch by some packers to grade and yield pricing. Nearly all of this would originate from the cull cow sector. Assuming that the average value added by a livestock auction barn is \$15/head<sup>12</sup> and given that we estimate that 5 million head<sup>13</sup> moved through such barns in 2009, a conservative estimate of the value lost as packers increase grade and yield pricing in response to the rule is \$18.8 million. The removal of that much value from the system along with the problems related to (1) would almost assuredly put many smaller livestock auction barns out of business. Information obtained in the interview process suggested that many smaller barns are heavily dependent upon cull cow sales and the loss of a quarter of that business could put the barn in financial jeopardy. We believe that up to 15% of existing facilities could succumb in such a scenario and this would imply that between 150 and 200 of the smallest livestock auction markets might cease to exist. Should this occur, all of the remaining animals that are normally traded through the closed facilities would have to travel greater distances to reach a larger sale location.

<sup>12</sup> Typical commission posted in the stockyards and filed with GIPSA

<sup>13</sup> Out of 6 million commercial cows slaughtered in 2009



In 2009, 33 million animals were transacted through commission markets or commission firms in the US<sup>14</sup>. The largest proportion of these animals are bovine, cull cows and feeder cattle. A modest number of hogs and horses would be in that mix. Often the same animal may pass through the system more than once. Assuming that 1.25 million cull cows will no longer be marketed within the system (25% of 5 million), that would leave 31.75 million head still marketed in the post-rule sector. If a quarter of those animals had to travel an additional 50 miles due to consolidation of the industry brought about by (1) and (2) above, and assuming an all-in cost of \$10 animal per trip<sup>15</sup>, this would amount to an additional \$79.4 million in costs that would be borne by producers.

As a result, Informa estimates the overall direct cost to the livestock auction sector and producers due to the new requirements of proposed rule to be \$85.8 million. These are only the direct costs. There would be a heavy economic burden in the small rural communities where shuttered facilities are located as business moved from smaller barns to larger ones. Economic activity would increase around the larger facilities and decline around the smaller ones. The sector would become more consolidated.

## **7. Total Industry Cost Estimates**

### **7.1. Cattle and Beef**

In previous sections of this report, information was provided that identified the methodology employed in pulling together estimates of the direct and indirect costs associated with the proposed rules. This section provides the results of the analysis and, as can be seen, there will be a rather significant potential cost burden placed on the cattle and beef supply chain. For purposes of simplicity in presenting the results, supply chain costs have been aggregated into four primary categories. There will be costs incurred by the beef supply chain that are of a one-time nature and basically reflect actual cost outlays. These one-time costs for the beef industry were aggregated up from a rather large matrix of individual costs

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<sup>14</sup> Annual Report, Packers and Stockyards Program, GIPSA, USDA, March 2010, p. 63.

<sup>15</sup> Gadberry, Shane and Troxel, Tom, "Cow-Calf Enterprise Budget", University of Arkansas Cooperative Extension Service, MP413-PD-10-10RV, page 10.

elements based on primary data submissions provided by commercial supply chain participants and supplemented by knowledge and experience based estimates provided by business consultants at Informa.

A similar process was used to develop a consensus estimate and roll-up of ongoing direct costs. These costs reflect estimates developed for sustained business adjustments that would be required to comply with the proposed rules as currently written. While the one time direct costs were estimated at nearly \$39 million, the ongoing direct costs were estimated to total just over \$61 million.

In addition to direct beef industry costs, two other major areas of economic impacts were identified and estimated. The US beef packing sector is a complex and highly differentiated business with optimal efficiency in the slaughter/processing sector very dependent upon the entire live animal procurement, slaughter/processing and beef product merchandising process. Disruptions in this process whether due to the wrong type of cattle arriving at the plant; too few cattle to operate at a high level of capacity or the wrong quality of product to meet various merchandising programs will all have a negative impact on operational efficiencies. This can be a major cost to the industry; estimated in this study to total nearly \$402 million.

In addition to efficiency losses, the beef industry has spent the past 20 years developing a broad range of quality based programs; some breed specific and some branded in nature while others reflect specific product attributes that qualify the product as organic or natural. Most of these value enhanced programs center around marketing agreements that specify how the animals are going to be produced and in most cases, priced. Virtually all of these programs have imbedded in the requirements a higher cost structure and this necessitates higher prices to be paid for the animals. The premiums that are paid cover the added costs and provide an additional margin incentive to the cattle producer to assure that supplies continue to be produced.

An effort was made to calculate the value that various beef production and marketing programs have generated for the industry and a description of this evaluation is provided in Section 6.1. An aggregate measure of the value enhancement to the US beef industry was made and this totaled an estimated \$755 million. While the adjustment to marketing agreements

that will occur is very uncertain given the vague wording of the proposed rules, it is most certainly to be less than the maximum value-added estimate and just as certain to be greater than zero. In our judgment, the midpoint of these two extremes seems like a good choice to represent the losses in revenue from declining product quality. Thus, our estimate of the quality impact (lost revenue opportunity) in the beef sector is \$378 million.

For the cattle and beef supply chain, these four cost components roll up to a total industry cost of roughly \$880 million. In addition to this cost, there will be costs at the sales barn/auction market level of the supply chain and possibly company-specific costs related to asset divestitures, business reorganizations and possibly acquisitions. It was noted in several industry interviews that, should the rules as written be implemented, there may be a strong incentive for further vertical integration as a counter measure to the increased exposure that the rules are certain to create from a litigation perspective

**Table 7. Beef Industry Supply Chain Cost**

	Million \$
One Time Direct Costs	\$38.7
Ongoing Direct Costs	\$61.5
Cost Increase Due to Efficiency Loss	\$401.9
Revenue Lost Due to Quality/Demand Impact	\$377.7
<b>Total Supply Chain Loss</b>	<b>\$879.9</b>

## **7.2. Hogs and Pork**

For the hog and pork sector, the same analytic framework was used whereby one-time and ongoing direct costs were estimated as were costs associated with efficiency losses and revenue loss associated with quality programs. The process changes leading to direct cost impacts (both one-time and ongoing) were very similar to those for the cattle and beef sector with costs totaling nearly \$70 million for one-time costs and just above \$70 million for ongoing costs.

For the hog and pork supply chain in aggregate, the potential costs associated with implementation of the proposed rules summed to \$401 million. This is much lower than the estimated cost for the beef industry

but still a significant cost burden for the US industry to bear. The supply chain lacks sufficient margin for such an economic cost to be absorbed so ultimately, such costs will need to be borne by the consumer through higher prices; the producer through lower prices or more likely, a combination of both. Costs of this magnitude ultimately will lead to a downsizing of the production base and, given the enhanced threat for expanded litigation, there would be incentives for industry vertically integrate beyond current levels.

**Table 8. Pork Industry Supply Chain Cost**

	Million \$
One Time Direct Costs	\$68.7
Ongoing Direct Costs	\$73.8
Cost Increase Due to Efficiency Loss	\$176.7
Revenue Lost Due to Quality/Demand Impact	\$82.2
<b>Total Supply Chain Loss</b>	<b>\$401.4</b>

### 7.3. Poultry

The poultry industry is highly integrated with only limited transactional activity at the live bird/slaughter level interface. Consequently, the industry has operated for many years on contractual relationships between integrated processors and contractual growers. Over time, the industry has built contracting relationships that provide incentives to growers that meet or exceed certain productivity and efficiency standards and these systems are not always looked upon favorably by some growers.

Informa believes the proposed rules will change some of the details in contractual arrangements between growers and processors but overall the industry will continue to operate much as it does today. Complying with the proposed rules will not come without some cost and the analysis conducted suggests those costs will roll up to industry aggregates as shown in Table 9.

Since both the chicken and turkey industries are already organized such that contracts drive the production, marketing and pricing of live birds, many of the proposed changes for this industry deal with specific elements of these contracts. It was estimated that changes required in this regard would result in one-time direct costs of \$26 million and ongoing costs of

\$33.4 million. While these are costs that reflect relatively small incremental costs on a per bird or per pound of production basis, they nevertheless add new costs to both the chicken and turkey supply chains and cannot be simply ignored. Much of the ongoing direct costs and to a lesser extent, one-time direct costs relate to likely costs of establishing contingency funds to deal with a higher incidence of litigation. This fear of "open ended" litigation was raised time and again by industry stakeholders interviewed during the course of this investigation.

As can be seen in Table 9, the analysis conducted by Informa and presented in Section 6.4 estimates a large (\$300 million +) cost associated with efficiency losses which are expected should the proposed rules be implemented.

**Table 9. Poultry Industry Supply Chain Cost**

	Million \$
One Time Direct Costs	\$26.0
Ongoing Direct Costs	\$33.4
Cost Increase Due to Efficiency Loss	\$302.2
Revenue Lost Due to Quality/Demand Impact	\$0.0
<b>Total Supply Chain Loss</b>	<b>\$361.6</b>

**7.4. Aggregate Meat/Poultry Industry Costs**

Pulling all of the cost and revenue components together, the aggregate impact of the proposed GIPSA rule for the US meat and poultry industry is estimated to be \$1.64 billion. This reflects a significant burden for this sector of the US economy and the impacts do not stop here. In the following section an analysis of the macroeconomic consequences from such an economic impact are provided.

**Table 10. Aggregate Economic Impacts Across All Species**

Source	Million \$
One Time Direct Costs	\$133.3
Ongoing Direct Costs	\$168.7
Cost Increase Due to Efficiency Loss	\$880.9
Revenue Lost Due to Quality/Demand Impact	\$459.9
<b>Total Supply Chain Loss</b>	<b>\$1,642.8</b>

## 8. Macro Economic Impacts

### 8.1. Market Analysis

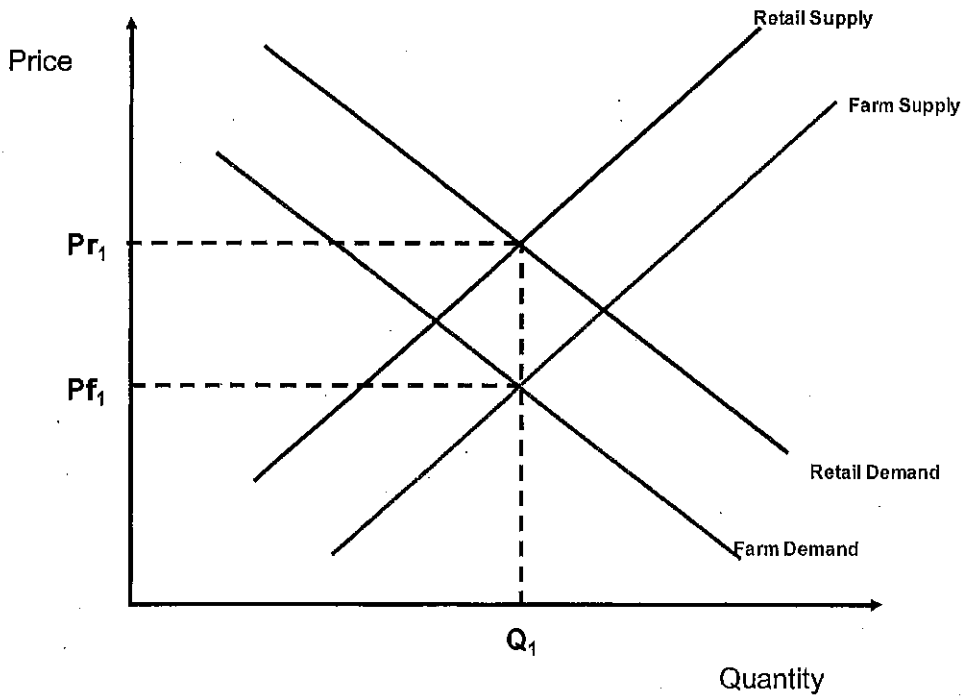
The next step in the analysis was to take the cost estimates developed in the previous section and use those to gauge the impact of the rule to the broader US economy. The primary tool used for this purpose is an input-output model based on data for the entire US economy. In preparation for that step however, the cost and revenue loss information had to be translated into a change in industry output which is the primary information that drives input-output analysis. The next sections describe how that transformation was made.

#### 8.1.1 Adding Costs to the Economic System

Most of the effects of the proposed rule involve added costs borne by the industry. Here we develop a simple model of how added costs affect industry output. It is important to recognize that for supply chain participants such as packers, who are primarily margin players, added costs will not, in the long run, remain at the packer level. Instead, what occurs is that the spread between farm and retail prices increases to reflect the new costs that have been added to the system.

Figure 11 illustrates this concept using linear supply and demand curves. In this figure, we show both retail and farm level supply and demand. In this market, quantity  $Q_1$  is produced and there is a spread between the retail price ( $Pr_1$ ) and the farm price ( $Pf_1$ ). Often economists will refer to this spread as the marketing margin because it encompasses all of the costs that are required to take a raw material from the farm to the retail level where it is purchased and consumed. When new costs are injected into the system, the retail supply curve and the farm level demand curve both shift back to the left, leaving a new equilibrium farm level price,  $Pf_2$ , and a new retail price,  $Pr_2$ . The spread between the retail and farm price increases to accommodate the new cost (see Figure 12).

Figure 11. Retail and Farm Level Supply and Demand

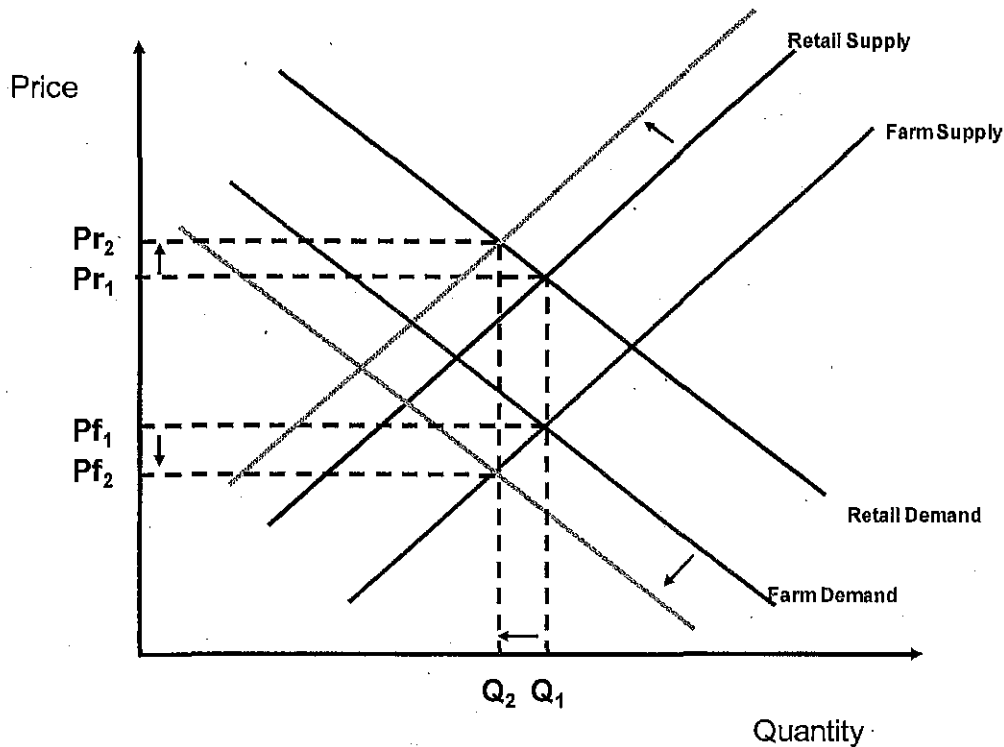


Thus, the long-run result of an increase in costs is that some of the increase is borne by producers in the form of a lower farm price and some is borne by consumers in form of a higher price at retail. Quantity in the market declines (illustrated as the movement from  $Q_1$  to  $Q_2$  in Figure 12) and the spread between retail and farm prices widens. How much of the cost increase is borne by producers and how much is borne by consumers depends upon the slopes of the supply and demand curves. If the demand curve is “steeper” than the supply curve, more of the increase will move to the consumer. If the supply curve is steeper, then more of the cost will be borne by the producer. In this simple model of the market using linear supply and demand curves it is easy to show that the percentage of the cost increase borne by the consumer is:

$$\frac{\epsilon_s}{\epsilon_s - \epsilon_d}$$

where  $\epsilon_d$  is the elasticity of demand and  $\epsilon_s$  is the elasticity of supply.

Figure 12. Effect of Adding Costs at the Processor Level.



Informa used this basic framework to determine how the quantity of output would change given the cost increases that were calculated in the previous sections. Obviously, estimates of the elasticity of supply and demand were required for this exercise. These were based on past research by other authors with some professional judgment used where good external estimates could not be located. Table 11 below gives the elasticities used in this study. Linear supply and demand curves were assumed and the parameters of these were determined using 2010 prices and quantities in the three markets with the broiler market used to represent all poultry. Elasticities are dependent upon the time-horizon considered, particularly supply elasticities. Since the cost estimates and later impact analysis was done on an annual basis, the elasticities were selected with a one-year horizon in mind.



Table 11. Supply and Demand Elasticities

	Beef	Pork	Poultry
Supply Elasticity	.993 <sup>16</sup>	.520 <sup>17</sup>	.850 <sup>18</sup>
Demand Elasticity	-.951 <sup>19</sup>	-.993 <sup>19</sup>	-.644 <sup>20</sup>

Once this basic model framework was established, it was used in conjunction with the cost estimates developed earlier to calculate the decline in industry output that would occur in each of the three markets as a result of injecting higher costs into the system. Only the direct ongoing costs are considered because it is those costs that we can be sure that packers will eventually pass on to consumers and producers. It is possible that packers might absorb some or all of the one-time costs, and so that portion of costs is not included in this portion of the analysis.

### 8.1.2 Modeling Quality Decline

Not all of the damage expected to come from the rule originates from cost increases. In the case of beef and pork, we believe that substantial harm will come to the industry as the availability of high quality and specialty product declines when packers limit the use of alternative marketing agreements out of fear of litigation. We model this effect as a downward shift in the demand curve, which reflects the reality that, as the average product quality declines, consumers can only be induced to keep their consumption intact by lower prices.

Given the loss in value due to quality decline calculated in previous sections and assuming a linear demand function with a demand elasticity as given in Table 11, it is a simple matter to calculate the reduction in output that arises from the assumed decline in product value.

<sup>16</sup> Tvedt, D, et al. *Elasticities in World Meat Markets*. Agricultural Economics Research Report Series No 55, Kentucky Ag Experiment Station, (November, 1991).

<sup>17</sup> Meyer, et al. *FAPRI US Sector Elasticities, Volume II Livestock, Poultry and Dairy*. Technical Report 92-TR 26, (October 1992).

<sup>18</sup> Informa estimate

<sup>19</sup> Chen, K. Z. 1998. *The Symmetric Problem in the Linear Almost Ideal Demand System*. Economics Letters 59: 309-315.

<sup>20</sup> Huang, K. S., and B. Lin. *Estimation of Food Demand and Nutrient Elasticities from Household Survey Data*. Food and Rural Economic Division, Economic Research Service, US Department of Agriculture, Technical Bulletin, Number 1887 (August 2000).

### 8.1.3 Modeling Efficiency Losses

For all three species, we expect that there will be efficiency losses as a result of the proposed rule. In beef and pork these losses stem from less predictable throughput in plants as a result of fewer animals procured under marketing agreements. In poultry, the efficiency losses come from a reduction in feed efficiency that results from decreased incentives to growers to improve once the tournament system changes called for by the rule become reality. In both cases, efficiency losses are modeled as an increase in costs to the packer/integrator. Thus, the methodology described above for modeling cost increases is also used for modeling the degree to which industry output will decline once the rule is in place.

### 8.1.4 Total Losses

The final step in preparing for the input-output analysis is to aggregate the change in the value of industry output from all three sources: direct ongoing cost increases, quality decline and efficiency losses. This total, expressed as a wholesale dollar value of lost output is then used as the starting point for the input-output analysis. Table 12 provides the estimated industry output results of all three consequences of the rule.

**Table 12. Industry Output Effects Estimated for the Direct Ongoing, Quality Decline and Efficiency Losses as a Result of the Proposed Rule**

	Wholesale Value of Lost Industry Production (million \$)	Change in Industry Production (million lbs)	Change in Animal Numbers (thousands)
Beef	\$591	-379	-494
Pork	\$246	-256	-1,253
Chicken	\$236	-313	-55,219
Turkey	\$14	-19	-658

Given the assumed supply and demand elasticities, it is also possible to segregate the damages between producers and consumers. The direct ongoing and efficiency costs will be split between the producer and consumer while losses due to quality degradation will not impact the consumer financially and will all be borne by the producer. In the case of

beef and pork the producer segment is very clear. In the case of poultry, the integrators themselves are the producers and thus it makes it more likely that nearly all of the cost increases will be pushed up to the consumer. The estimates of consumer/producer burden are presented in Table 13.

**Table 13. Relative Cost Burden Between Consumers and Producers**

	----- Costs Borne By -----		Percent that Falls on Producers
	Consumers (million \$)	Producers (million \$)	
Beef	\$106	\$485	82.0%
Pork	\$108	\$138	56.2%
Chicken	\$190	\$45	19.3%
Turkey	\$12	\$3	19.3%
Totals:	\$416	\$672	

## 8.2. Input-Output Analysis

The final task in the economic analysis was to determine how the reduction in output value in each of the respective industries would impact the overall US economy. For this we turned to an input-output model of the US economy. Input-output models are a more restrictive form of computable general equilibrium models. They represent the economy as a series of interrelations between sectors of the economy and final demands which include export markets and government. Household demand is endogenous to the system. Historical data is used to construct these interrelationships and each sector is characterized by a production function that uses other sector's output as its input.

For this study, Informa made use of software and data provided by the Minnesota IMPLAN Group which was optimized for input-output analysis where the United States was treated as the region of interest. Since GIPSA's proposed rule is directed at the packing sector, and most of the costs associated with the rule will initially fall on that sector, that is where the modeling effort began. A set of activities were selected that are believed to adequately represent the production functions of the beef, pork and poultry processing sector. For this effort, chicken and turkey were

combined to create a general poultry category in the same way that the two industries were combined for the cost analysis.

When applied to a particular sector, the input-output modeling process will account for three different effects. First, the direct effect represents the impact that the reduction in output will have on the target industry—in this case the processing sector. The model will also render an estimate of the decline in output that will result in all of the industries that supply the target industry. We refer to this as the supplier effect. Finally, the model provides an estimate of the induced effect which describes how reduced spending from those working in the target sector will reverberate through the economy and affect other industries. Thus for every industry we were able to segregate the direct, supplier and induced effects. Since the model is linear, these can be summed to arrive at the total reduction in output that arises from a change in the target industry's output.

In addition to the output changes, the input-output model can provide an estimate of the change in employment and the change in value added for each affected sector. Employment is expressed as the number of full-time, 12-month jobs while the value added component is expressed in dollars. One further piece of information provided by the model is an estimate of the change in tax revenues that will result from the change in economic activity. This is a rough estimate since the model doesn't estimate taxes in many of the local tax jurisdictions but rather uses an average approach to estimate the nationwide effect. Still, it provides an indication of the magnitude of tax revenues that will be foregone as output in each of the three industries declines.

In addition to modeling the effects on the processing sectors and all of the suppliers to those sectors, Informa also modeled the effects that could be expected further down the supply chain. In particular, all three proteins have a significant presence in both the retail grocery and foodservice sectors and the reduction in beef, pork and poultry output will have a negative effect on those segments of the supply chain. In this manner, we get a much better picture of the total impact to the overall economy than if these sectors were not included in the analysis. Finally, results are presented by specie, with the turkey and chicken grouped together, and are then summed to arrive at the total industry impact of the proposed GIPSA rule across the entire US economy.

### 8.3. Economy-Wide Impact, Beef

We expect the beef supply chain to be the one most affected by the proposed GIPSA rule. The driving reason behind this stems largely from the expected decline in quality and thus beef demand that is expected to result from a reduction in the utilization of AMA's by industry participants. The other costs of the rule are significant, but they are dwarfed by the impact that arises from declining average product quality. By comparison, the poultry industry is not expected to experience a significant quality problem as a result of the rule. This disadvantages beef relative to poultry in the long-run battle for market share with consumers.

**Table 14. Estimated Economy-Wide Effects Associated with Declining Output in the Beef Supply Chain.**

	Direct	Supply Chain	Induced	Total
Employment (# of jobs)	-3,710	-4,486	-3,892	-12,088
GDP (mil \$)	-188	-325	-323	-837
Output from Affected Industries (mil \$)	-598	-817	-608	-2,022

The results from the input-output analysis are presented in Table 14. We find that the impact of the proposed GIPSA rule on the beef sector has the potential to result in the loss of just over 12,000 jobs and reduce GDP by \$837 million dollars. It is important to recognize that while the job loss is not an every year occurrence; the lost contribution to the national GDP does repeat each year. We note that the biggest loss in terms of jobs and GDP comes from the supply chain, i.e., the industries that supply the beef industry. The largest of these related industries is cattle ranching and farming. Table 15 provides the top ten sectors with respect to job losses related to the problems created in the beef supply chain by the proposed rule.

**Table 15. Top Ten Sectors for Job Losses Originating from the Beef Supply Chain.**

Sector	Job Loss
Cattle ranching and farming	-2,889
Animal (except poultry) slaughtering, rendering, and processing	-508
Real estate establishments	-498
Wholesale trade businesses	-470
Food services and drinking places	-466
Retail Stores - Food and beverage	-462
Support activities for agriculture and forestry	-456
Transport by truck	-340
Animal production, except cattle and poultry and eggs	-317
All other crop farming	-295

**8.4. Economy-Wide Impact, Pork**

The pork sector will also see dramatic effects originating from adoption of the rule. Losses in this sector are not as large as for beef, primarily because the impact on product quality is not expected to be as large. Still, the industry will suffer some quality decline as packers find it more difficult to supply specialty products such as organic and natural pork in an environment that includes far fewer marketing agreements. The pork industry will take its biggest hit from reduced efficiency, primarily in the form of inefficiencies in plant utilization that will result from less predictable supplies in a reduced AMA environment. Direct ongoing costs will also play a role.

Our analysis suggests that the potential for 5400 job losses will result from imposing the conditions of the proposed rule on the pork industry. GDP contribution is expected to decline by \$335 million. Table 16 gives the change in jobs, GDP and output that are expected to arise from the pork sector.

**Table 16. Estimated Economy-Wide Effects Associated with Declining Output in the Pork Supply Chain.**

	Direct	Supply Chain	Induced	Total
Employment (# of jobs)	-2,507	-1,451	-1,472	-5,430
GDP (mil \$)	-108	-104	-122	-335
Output from Affected Industries (mil \$)	-238	-256	-230	-724

As with the beef sector, the biggest decline in jobs will come from the production sector as nearly 2000 jobs are projected to be shed in the production sector alone. By comparison, the slaughter and processing sector is expected to lose only 236 jobs. Table 17 provides the top ten sectors for job loss originating from the pork supply chain.

**Table 17. Top Ten Sectors for Job Losses Originating from the Pork Supply Chain.**

Sector	Job Loss
Animal production, except cattle and poultry and eggs	-1,928
Animal (except poultry) slaughtering, rendering, and processing	-236
Retail Stores - Food and beverage	-232
Cattle ranching and farming	-193
Food services and drinking places	-177
Wholesale trade businesses	-176
Real estate establishments	-161
Support activities for agriculture and forestry	-150
Transport by truck	-130
Employment services	-83

**8.5. Economy-Wide Impact, Poultry**

Overall economic damage was the smallest in the poultry area. Our assumption that the proposed rule would not impact the quality or demand for poultry products is largely responsible for this outcome. The largest impact comes from the efficiency decline that is expected to result from the tighter regulations placed on the tournament system. Ongoing direct costs are significant in the poultry area and those, combined with the efficiency loss point to an output decline in this sector that is projected to cost the economy at total of 4500 jobs and \$341 million dollars in GDP. Table 18 provides the input-output results as they relate to the poultry sector.

**Table 18. Estimated Economy-Wide Effects Associated with Declining Output in the Poultry Supply Chain.**

	Direct	Supply Chain	Induced	Total
Employment (# of jobs)	-2,032	-1,338	-1,143	-4,513
GDP (mil \$)	-133	-113	-95	-341
Output from Affected Industries (mil \$)	-280	-235	-178	-692

An interesting outcome from the poultry model identifies oilseed farming to be the sector at risk to lose the most jobs due to the cost increases in this sector. Poultry farms are big consumers of soybean meal which likely plays a role in this result and the lack of a specific production sector (the processors are the producers) helped to produce a job loss distribution in this sector that differs from what was noted in the pork and beef results. This does not mean a direct loss of soybean farmers per se, but rather just a loss of jobs in that sector. There are many people employed as farm hands, etc. whose jobs would be at risk if demand for soybean meal were to decline because of shrinking animal production. Agricultural support activities rank much higher in the poultry industry's list of sectors losing jobs.

**Table 19. Top Ten Sectors for Job Losses Originating from the Poultry Supply Chain.**

Sector	Job Loss
Oilseed farming	-1,634
Support activities for agriculture and forestry	-430
Real estate establishments	-247
Retail Stores - Food and beverage	-222
Poultry processing	-213
Food services and drinking places	-123
Wholesale trade businesses	-102
Grain farming	-57
Monetary authorities and depository credit intermediation activities	-56
Employment services	-53

## **8.6. Economy-Wide Impact, Livestock Auction Markets**

In Section 6.6 we described the economic risks that would confront the livestock marketing sector if the proposed rule was implemented. We found that it was likely that increasing numbers of cull animals would bypass livestock auction markets and be sold directly to packers on a grade and yield basis. The total direct costs to the economy system in terms of both lost value added and increased transportation costs borne by producers was found to be \$85.8 million dollars.



The IMPLAN software does not contain a sector specific to livestock auction markets so the cattle ranching production sector was used as a proxy. This is particularly applicable since much of the added cost involves a new transportation cost burden that falls on producers, many of which will be in the cow-calf sector of the beef supply chain. Table 20 provides the results of the model constructed to represent the losses that might be expected from the changes in the livestock auction market industry.

**Table 20. Estimated Economy-Wide Effects Associated with Effects on the Livestock Marketing Sector.**

	Direct	Supply Chain	Induced	Total
Employment (# of jobs)	-307	-350	-157	-813
GDP (mil \$)	-7	-25	-13	-45
Output from Affected Industries (mil \$)	-40	-64	-24	-128

### **8.7. Economy-Wide Impact, Total**

Finally, we bring together all of the aforementioned economic impacts in order to gauge the overall impact that the rule is expected to have on the US economy. Table 21 provides these totals. We find the overall loss in GDP resulting from this rule to be \$1.56 billion and the total number of jobs lost to approach 23,000. Output from all of the affected industries is expected to decline by \$3.58 billion, including those in ancillary supply chains that are not part of the targeted industries and those that suffer an induced effect due to reduced spending by participants in the meat and poultry sectors. Clearly, this proposed rule has the potential to cause significant economic loss to the nation.

**Table 21. Estimated Total Economy-Wide Effects Associated with the Proposed Rule.**

	Direct	Supply Chain	Induced	Total
Employment (# of jobs)	-8,555	-7,624	-6,664	-22,843
GDP (mil \$)	-436	-568	-553	-1,557
Output from Affected Industries (mil \$)	-1,155	-1,371	-1,041	-3,567

## 8.8. Tax Revenue Impact

The IO software that was used for this study contains the capability to estimate the changes in tax revenues that will result from the output changes described above. These are only rough estimates as the software uses average tax relationships in the past to project future revenues. Obviously, there is no guarantee that future tax rates will resemble those of the past. Still, we think it is informative to present these estimates as an indicator of how much tax revenue could decline as a result of the proposed rule. Table 22 presents the annual change in tax revenue to state and local governments while Table 23 gives the annual change for the federal government.

**Table 22. Change in State and Local Tax Revenue by Source (Million \$).**

Taxes on Employee Compensation	Taxes on Proprietor Income	Indirect Business Taxes	Taxes Paid By Households	Taxes Paid By Corporations	Total:
-\$1.90	\$0.00	-\$119.91	-\$22.97	-\$21.37	-\$166.14

**Table 23. Change in Federal Tax Revenue By Source (Million \$).**

Taxes on Employee Compensation	Taxes on Proprietor Income	Indirect Business Taxes	Taxes Paid By Households	Taxes Paid By Corporations	Total:
-\$75.46	-\$8.07	-\$16.78	-\$63.50	-\$29.28	-\$193.10

## 9. Timing of the Economic Impact

Many of the economic results discussed above will take time to materialize. Perhaps the only economic impact that can be expected to occur shortly after rule implementation are those cost expenditures associated with the direct one-time costs (discussed in Section 5). The other, more significant impacts such as declining efficiency and quality degradation can be expected to happen more slowly and may not reach the full potential described here until three or four years post implementation.

The IO models used in Section 8 are designed to measure an annual change.<sup>21</sup> Therefore to be consistent, all of our cost estimates in Sections 5 through 7 were made on an annual basis. However, these estimates were made with the idea that the full effect of the rule was being felt. We have little empirical evidence to suggest how the economic impacts will evolve over time. Subjectively, our professional experience and information gleaned from the industry interviews will allow us to provide a subjective assessment of how these effects may play out over time.

In the graphs that follow, one for each supply chain, we show our opinion of the relative impact in each year following implementation of the rule. The following convention is used. We rate each year from 0 to 1 with 1 representing full impact and zero representing no impact. Fractions in between can be interpreted as partial impacts. The full impact years are expected to correspond to the numbers presented in Section 8, while in other years the economy will feel less of an impact.

It is important to recognize that eventually companies will find ways to adapt to the provisions of the rules and thus in more distant years the economic impact of the rules will be lessened. There may always be some residual ongoing costs that remain and some of the quality and efficiency effects may have a very long tail, but it is safe to assume that the overall impact a decade from now will not be as great as it is in the first few years.

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<sup>21</sup> Projected GDP and output declines are on a per year basis. Employment loss does not re-occur each year, but rather the jobs that were lost early years remain lost in later years.

Figure 13. Estimated Economic Impact Over Time, Beef

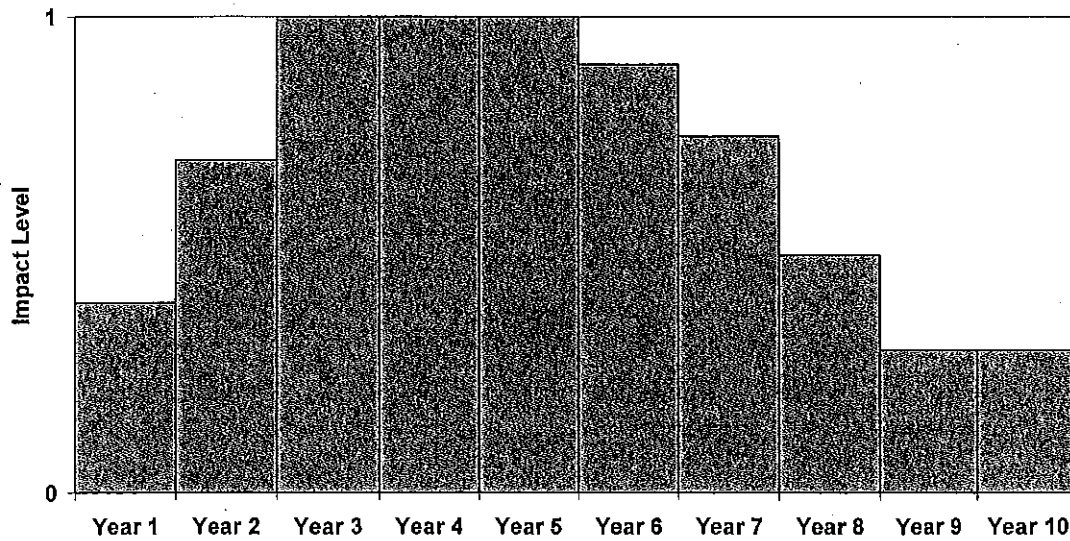


Figure 14. Estimated Economic Impact Over Time, Pork

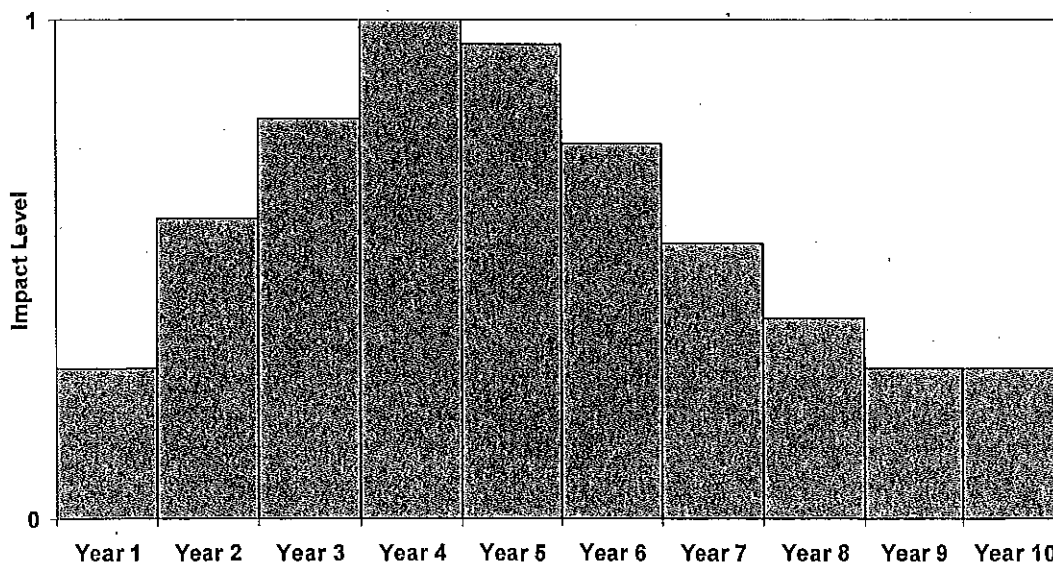
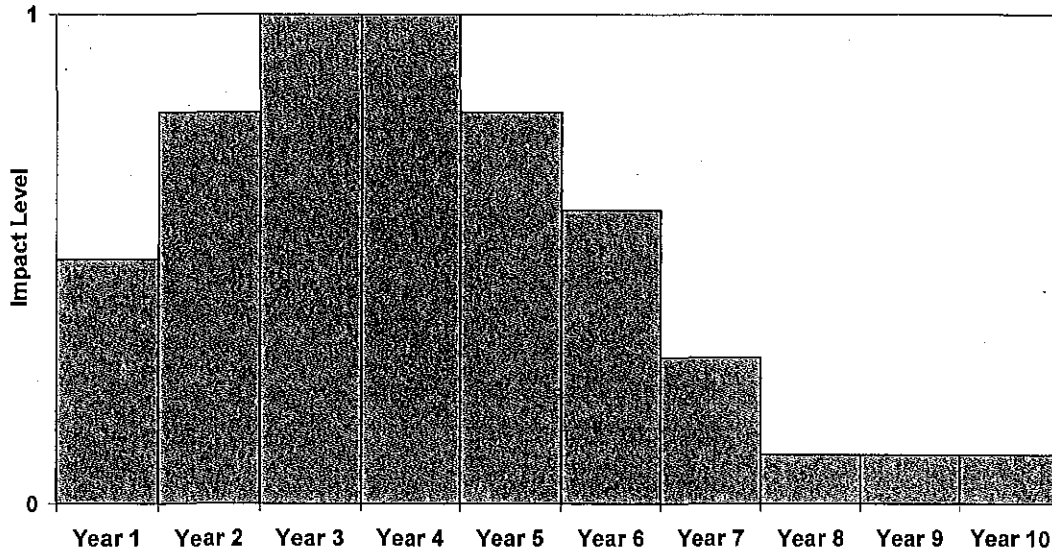


Figure 15. Estimated Economic Impact Over Time, Poultry



## 10. Summary

This study was commissioned because GIPSA has proposed a rule to implement directives in the 2008 Farm Bill without conducting a careful and credible cost analysis. With this work, we begin to fill that gap and provide the industry and indication of the costs that are likely to arise if the rule were to be implemented as written. The rule as it currently stands strikes us as very vague and ill-defined. This has created considerable uncertainty among industry players as to what to expect once the rule is implemented.

Our process began with in-depth interviews of industry participants in all segments of the beef, pork and poultry supply chains. Through these interviews we were able to gain an understanding of how companies were planning to respond to the rule and collect their thoughts on the potential costs they would incur in their response. To help quantify the cost aspect, surveys were sent directly to companies involved in each supply chain asking them to provide cost estimates on a long list of potential actions that might be required to deal with the rule. These included everything from costs associated with additional computer systems and the personnel to support them to projected costs associated with defending their firms from increased litigation as a result of the rule. These survey results were combined with professional expertise at Informa to arrive at a

reasonable cost estimate for several broad categories of costs. This process also involved having the Informa study team prepare estimates of financial losses that could be expected from reduced efficiency and declining demand that was expected to arise as a consequence of the rule.

These cost and revenue loss estimates were aggregated to an industry-wide basis and worked through a simple supply-demand framework to arrive at an estimate of the change in output that was expected for each supply chain. Informa found that the rule is likely to reduce animal numbers in the beef sector by 494,000 head and in the pork sector by 1.25 million head. For broilers the expected decline was 55.2 million birds and for turkeys the rule was expected to reduce output by an amount equivalent to 659,000 birds.

Once an estimate of the change in output was in hand, the analysis progressed to the final stage which was designed to provide an estimate of the impact on the US economy from these changes in the meat and poultry sectors of the economy. An input-output model was used for this purpose. Results of this stage of the study indicated that the rule as written is expected to reduce GDP by just over \$1.5 billion and cost the US economy nearly 23,000 jobs. This work indicates that all three industries will suffer significant economic damage should the proposed rules be implemented. The fact that the estimated economic loss to beef and pork exceeded that of poultry highlights the potential magnitude of the unintended consequences.

Through this analysis, the Informa team came to believe that this rule could also have a substantial impact on livestock auction markets throughout the country. The rule will prohibit order buyers from purchasing cattle for more than one packer and we believe that this will cause a decline in buyers at smaller sale barns that likely set off a "death spiral" that will ultimately lead to many small rural auction barns ceasing business operations thus forcing ranchers in remote rural areas to ship animals further for sale at larger barns. We estimate that as many as 200 of the nations smallest sale barns could be at risk of disappearing. The demise of these barns and the consolidation of the sector is expected to result in a loss of over 800 jobs and a \$45 million dollar loss in value added by this sector.

Finally, we do not expect all of the impacts described by this study to occur immediately. They will take time to evolve. In particular, the decline in beef and pork quality and the subsequent damage to consumer demand will take time to materialize and time for the full impact to be felt. For beef and pork the full

impact might not be felt until three or four years after the rule is implemented. Efficiency losses in poultry would likely happen sooner, but would still be delayed somewhat from the rule's implementation date. The economic damage resulting from the rule would likely stretch for many years into the future.

It is worth noting in closing that during the course of this study, it became clear to us that the provision in the rule that relieves plaintiffs from the burden of proving competitive injury is by far the most damaging. Simply removing that one provision could reduce the economic damage expected from the rule by nearly 75%. All of the expected efficiency losses and demand decline that forms the basis for the largest portion of the costs are tied back directly to the packer/processors' fear of increased litigation and an increased likelihood that a very large financial judgment will be rendered against them. That is the factor that will drive the packers to sharply reduce their use of AMAs, which in turn creates large costs in terms of efficiency and product quality.

# ATTACHMENT J



# Proposed GIPSA Rules Relating to the Chicken Industry: Economic Impact



**Disclosures:** This study was prepared for the National Chicken Council. FarmEcon LLC was compensated for the preparation of this study.

# Proposed GIPSA Rules: Economic Impact

## Introduction

The United States Department of Agriculture (USDA), Grain Inspection, Packers and Stockyards Administration (GIPSA), has proposed regulations that would affect chicken company contracts with independent chicken growers. These proposals would significantly expand both the scope of GIPSA oversight of grower contracts, and the legal definition of "unfair practices". The purpose of this study is to examine the likely economic impact of the GIPSA proposals on chicken companies, their independent contract growers, and consumers.

GIPSA's Proposed Rules would alter long-standing contractual and business relationships between chicken companies and independent growers. The changes that are proposed are, in part, designed to broaden the scope of GIPSA authority, reduce the latitude to pay growers based on their performance, limit the ability of chicken companies to seek grower investments, and set new requirements for cessation or reduction of delivery of birds to growers. The most likely economic effects would be a reduction of performance-based competition among growers, a reduced rate of capital investment, a reduced rate of efficiency gains, higher chicken prices, and reduced chicken exports.

The GIPSA proposal has been put forward without meaningful evidence of harm done by current or historic practices. To the contrary, the current organization of the chicken industry has resulted in efficiency advances that benefit contract growers, chicken companies, and consumers. GIPSA also failed to present empirical evidence that the proposed rules would result in improved economic performance of the chicken industry. Indeed, based upon an analysis of the proposed rules and application of basic economic theory, it is likely that the proposed rules would increase production costs by reducing incentives for efficient chicken production, adversely affecting competition, chicken companies, efficient and effective chicken growers, and consumers.

GIPSA has also proposed new rules that specifically relate to pork and beef production, pricing and marketing practices. This study does not address those proposals. The proposals affecting chicken companies could also affect other types of poultry production. However, only the potential economic effects of the proposed rules on the chicken industry were considered in preparing this study.

## Summary of the Proposed Rules

For purposes of this study, GIPSA's proposed rules that would likely affect chicken industry economics materially will be grouped into six broad categories.

- 1. Suspension of Bird Delivery:** A 90 day written notice for suspension of delivery of birds to growers would be required. In addition, written reason for the suspension of delivery, the length of the suspension of delivery, and the date the delivery of birds will resume would be required.

## Proposed GIPSA Rules: Economic Impact

2. **Required Records:** Several proposed changes are related to records that chicken companies would be required to maintain and make available to growers and/or GIPSA. These include:
  - a. A specific statistical basis for determining grower pay for each flock raised;
  - b. Justification for differentials in grower pricing and payment;
  - c. Provision to GIPSA of a copy of each unique contract to growers, and;
  - d. Furnishing growers with written documentation of expected costs and returns for many company-sought capital improvements to grower facilities.
3. **Limits on Base Pay and Tournament Compensation:** These proposed changes are designed to regulate compensation of growers by establishing:
  - a. A uniform grower base pay rate based on type and kind of poultry; and
  - b. Pay-for-performance sub-groups based on grower housing type.
4. **Capital Improvements:** The proposals are designed to affect the terms under which a chicken company may seek capital improvements to be made by growers to their facilities. The Proposed Rules would require:
  - a. Contracts of sufficient length for a grower to recover 80% of the cost of the improvement;
  - b. Capital improvements made as a result of poultry company coercion be deemed an unfair practice;
  - c. The age and upgrade history of a grower's facilities could be the basis for a finding of an unfair practice for capital improvements;
  - d. Growers be able to "reasonably expect" the recovery of the cost of capital improvements sought by poultry companies;
  - e. A prohibition on reduced placements or termination of a grower for refusing a capital improvement if the grower's facility is in "good working order"; and
  - f. A prohibition on poultry companies reducing or ending processing at a facility within 12 months of a bargained for capital improvement for any of the growers supplying that facility. Emergency relief from this rule would require GIPSA approval.
5. **Expanded Enforcement Authority:** GIPSA's proposals would significantly expand GIPSA's enforcement authority to include:
  - a. A broad definition of breach of contract;

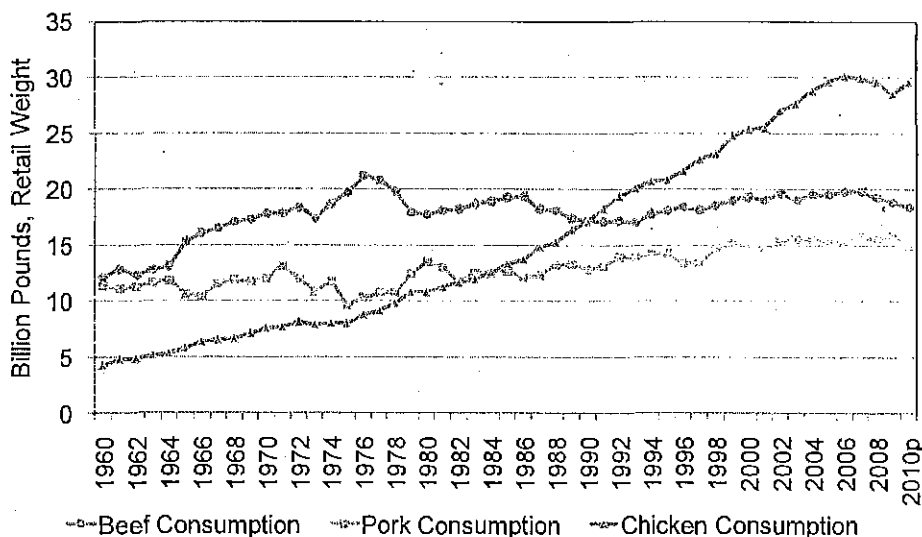
## Proposed GIPSA Rules: Economic Impact

- b. A broad definition of retaliatory action or omission,
  - c. A broad definition of fraudulent representation, by practice or omission, that would, or could, create competitive injury, or a "likelihood of competitive injury"; and
  - d. Expanded authority eliminating the test of competitive injury that applied to the Packers and Stockyards Act. Specifically, the Proposed Rules state "Conduct can be found to violate section 202(a) and/or (b) of the Act without a finding of harm or likely harm to competition."
6. **Effective Date:** The Proposed Rules would apply to any poultry growing arrangement or contract entered into, amended, altered, modified, renewed or extended after the effective date of the final rule. Thus, flock-to-flock and expiring contracts would likely be immediately affected by the Proposed Rules. Longer term contracts may pose significant issues for implementation of the Proposed Rules as currently written.

## Background – Chicken Industry Economic Performance

**Market Performance:** The U.S. chicken industry has an exemplary record of technological and management advances that have translated into lower real costs, lower real chicken prices, and increased chicken production and exports. As a direct result of innovation, since 1960 chicken has come from a distant #3 ranking in the U.S. meat industry to become the premier leader in both meat consumption and exports. To a great extent the growth of the industry can be attributed to its vertically integrated, effectively structured, production system. That system has enabled the chicken industry to compete aggressively with producers of beef and pork.

U.S. Consumption of Chicken, Beef and Pork, 1960-2009

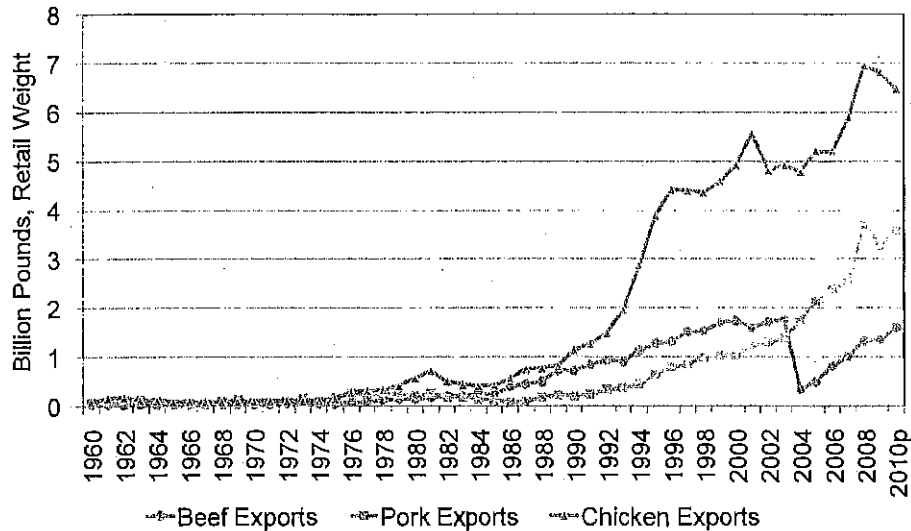


Source: USDA/FAS, PS&D database found at <http://www.fas.usda.gov/psdonline/psdQuery.aspx>, Accessed 11-2-2010.

## Proposed GIPSA Rules: Economic Impact

Over the last 20 years chicken export volume has grown rapidly to about equal the combined total of beef and pork exports. Chicken export growth is a direct result of vertical integration, innovation, improved genetics, and investments that have made the U.S. chicken industry a premier competitor on the global market.

U.S. Exports of Chicken, Beef and Pork, 1960-2009



Source: USDA/FAS, PS&D database found at <http://www.fas.usda.gov/psdonline/psdQuery.aspx>, Accessed 11-2-2010

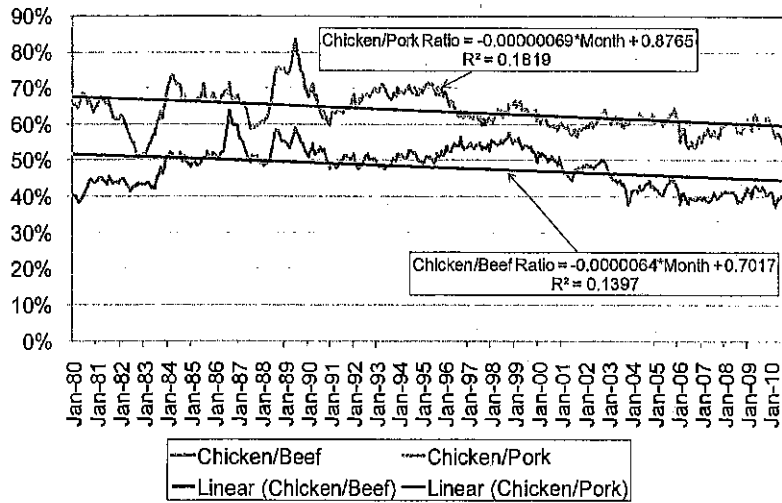
**Chicken Price Trends:** Since 1990, retail chicken prices have declined about 10 percentage points against both beef and pork (chart, next page). The decline in relative price was a significant factor behind the increased volume of U.S. chicken consumption relative to beef and pork. The fact that prices have declined relative to beef and pork is a direct function of a faster rate of cost-reducing innovation in chicken production. Innovation in chicken production has also driven increased rates of innovation in beef and pork, and helped lower their costs and prices as well. This result is exactly what economic theory would suggest in a well-functioning, highly competitive, marketplace.

Retail chicken prices, in 1982-84 constant dollars, declined from about \$1.20 per pound in 1980 to only about \$0.80 in 2010. The only way real prices can decline to this extent is the adoption of cost reducing, innovative, technology in a highly competitive market where cost reductions are passed along as lower consumer prices.

The chart on the next page showing constant dollar retail chicken prices demonstrates that the primary beneficiary of increased chicken industry efficiency has been the U.S. consumer. Real retail chicken prices have declined by 33% in the last 30 years, while chicken company profitability has not changed significantly. In other words, the cost-saving technology and investments that chicken companies have deployed since 1980 have been competitively transferred to consumers via lower real retail prices. Again, this result is consistent with economic theory. In competitive markets, as costs decline the benefit is passed along to consumers in the form of lower real prices and expanded output.

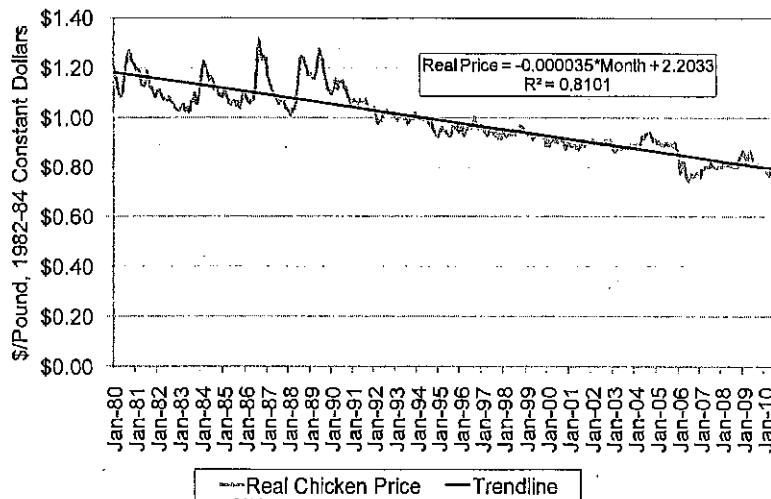
## Proposed GIPSA Rules: Economic Impact

USDA/ERS Monthly Retail Chicken Prices Relative to Beef and Pork



Source: Retail meat data found at <http://www.ers.usda.gov/Data/meatpricespreads/>. Accessed 9-29-2010.

Retail Constant Dollar (Real) Chicken Prices



Sources: Chicken, beef and pork prices found at <http://www.ers.usda.gov/Data/meatpricespreads/>. Consumer Price Index, base years 1982-1984, found at <http://data.bls.gov/cgi-bin/dsrv>. Accessed 9-29-2010.

**Value of Innovation:** One way to approximate the actual savings of chicken sector value chain innovation is to calculate the actual retail value of chicken production (average retail price times volume produced) versus retail value calculated as if average retail prices had increased with inflation. The gap between the two total retail values is what would have happened if innovation had not lowered increases in costs and prices to below the rate of general inflation, versus what actually happened with innovation-driven prices. Both volume and price effects are captured.

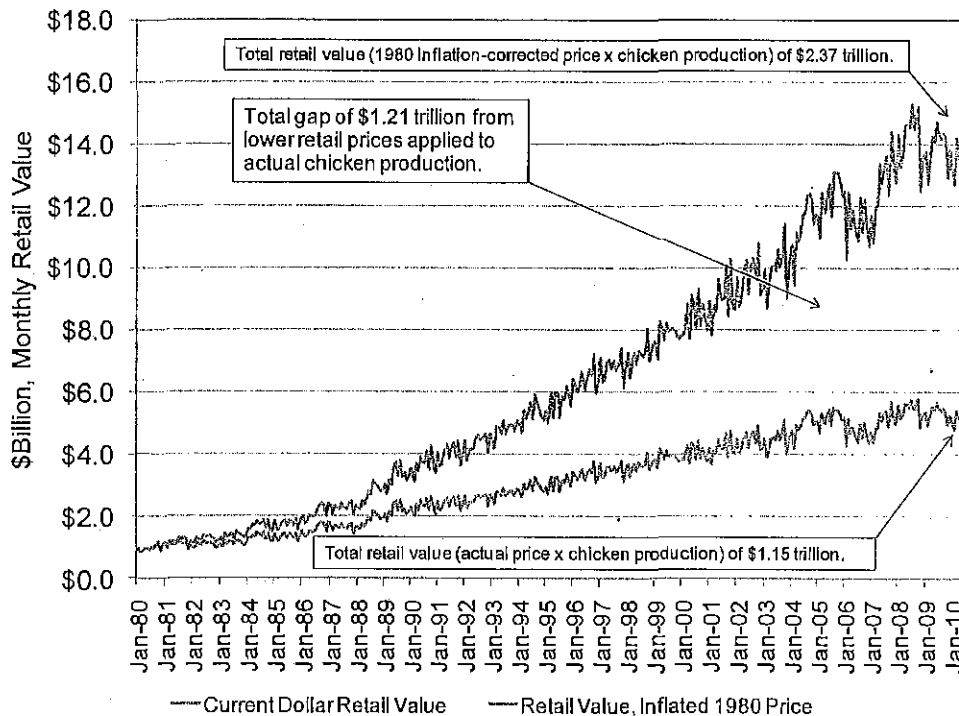
## Proposed GIPSA Rules: Economic Impact

Had retail chicken prices since 1980 increased with general inflation, the actual value of production would have increased much faster than was the case with lower actual prices that capture the value of cost-reducing innovation. The value gap is shown in the chart below.

The total 1980 to August, 2010 value gap between inflation-corrected 1980 and actual retail prices is \$1.21 trillion. In other words, since 1980, chicken consumers have saved over \$1 trillion from the lower retail prices made possible by investments in cost reducing technology.

Not all of those savings were due to investments made by chicken companies. Investments in crop production, feed processing and optimization, grower housing, genetics, processing equipment, distribution, and many other areas involved in chicken production all contributed to the decline in costs and prices relative to overall consumer price inflation. Improved efficiency of live chicken production has been one key driver in these overall cost savings.

Estimated Monthly Retail Value of U.S. Chicken Production  
1980 inflation-Corrected Retail value versus Actual Retail Value



Sources: Retail chicken prices found at <http://www.ers.usda.gov/Data/meatpricespreads/>. Chicken production found at [http://www.nass.usda.gov/QuickStats/Create\\_Federal\\_All.jsp](http://www.nass.usda.gov/QuickStats/Create_Federal_All.jsp). Consumer Price Index found at <http://data.bls.gov/cgi-bin/dsry>. Accessed 9-29-2010.

**Contract Grower Compensation:** Contract growers have also benefited from improvements in chicken production efficiency. Actual records of inflation-adjusted average chicken company payments to growers, per square foot of their housing, show an increase since 1990 (table, next page). Those increased payments reflect, in part, returns on the investments made by growers that have increased the efficiency and value of their operations. Increased payments also

## Proposed GIPSA Rules: Economic Impact

reflect freely negotiated chicken company current dollar pay rate increases to offset increasing grower costs for construction, maintenance, and operation of their chicken growing facilities.

Contract Chicken Grower Pay: U.S. Industry Average, 1990 through Projected 2010  
(Average Grower Payment Inflation-Adjusted by Implicit GDP Price Deflator, 2005 Base Year)

Year	Grower Payment (\$/sq. foot)	Grower Payment (\$/sq. foot)	Live Pounds Produced (Millions)	Grower Payment (\$/sq. foot)	Implicit GDP Price Deflator (2005 Base Year)	Inflation-Adjusted Grower Payment (\$/sq. foot)	% Increase
1990	4.08	5.65	25,550	\$1,444	4.8%	33.12	\$1.87
1991	4.11	5.50	27,171	\$1,494	3.5%	33.44	\$1.84
1992	4.14	5.41	28,998	\$1,569	5.0%	33.77	\$1.83
1993	4.22	5.39	30,474	\$1,644	4.8%	34.09	\$1.84
1994	4.23	5.30	32,766	\$1,735	5.6%	34.77	\$1.84
1995	4.32	5.30	34,353	\$1,820	4.9%	34.93	\$1.85
1996	4.30	5.18	36,035	\$1,865	2.5%	34.75	\$1.80
1997	4.46	5.27	37,207	\$1,963	5.2%	34.87	\$1.84
1998	4.53	5.30	38,055	\$2,016	2.7%	35.26	\$1.87
1999	4.68	5.39	40,444	\$2,181	8.2%	36.09	\$1.95
2000	4.78	5.39	41,294	\$2,227	2.1%	36.23	\$1.95
2001	4.87	5.37	42,336	\$2,274	2.1%	36.03	\$1.94
2002	4.81	5.22	43,715	\$2,283	0.4%	34.64	\$1.81
2003	4.90	5.21	44,318	\$2,308	1.1%	37.22	\$1.94
2004	5.04	5.21	45,667	\$2,378	3.1%	38.56	\$2.01
2005	5.24	5.24	47,579	\$2,493	4.8%	39.15	\$2.05
2006	5.39	5.22	48,333	\$2,523	1.2%	38.97	\$2.03
2007	5.43	5.11	49,090	\$2,508	-0.6%	38.56	\$1.97
2008	5.64	5.19	49,781	\$2,585	3.1%	38.84	\$2.02
2009	5.62	5.13	47,613	\$2,441	-5.6%	38.19	\$1.96
2010p	5.78	5.25	49,594	\$2,606	6.8%	38.51	\$2.02
<b>% Increase</b>	<b>41.7%</b>	<b>7.0%</b>	<b>94.1%</b>	<b>80.5%</b>	<b>NA</b>	<b>16.3%</b>	<b>8.1%</b>

Sources: Average grower payment and pounds/sq. foot: Agri Stats, 10/30/2010. Average grower payment is computed as total grower payments made by chicken companies to, or on the behalf of, growers, divided by total live pounds produced. Live chicken production from USDA/NASS, found at <http://www.nass.usda.gov/QuickStats/>, accessed 11/9/2010. 1990-1992 and 2010 pounds/sq. foot estimated based on 1993-2009 trend. 2010p based on Jan-Jun Agri Stats average payment rate, and USDA's 10/2010 chicken production forecast found at <http://usda.mannlib.cornell.edu/usda/current/wasde/wasde-10-08-2010.pdf>, accessed 10/18/2010. Implicit GDP Price Deflator from Bureau of Economic Analysis found at <http://www.bea.gov/national/nlpaweb/Index.asp>, accessed 11/4/2010

Although inflation-adjusted average pay rate per pound has declined slightly since 1990, inflation-adjusted payments per square foot of grower housing increased by an estimated 8.1%. Improved chicken performance, made possible largely by chicken company genetics investments, more than offset a decline in the inflation-adjusted pay rate per pound. Average daily gains for broilers increased from 0.091 pounds per day to 0.120 pounds per day, a 32% increase. As a result of improved bird performance the annualized average pounds marketed per square foot of a grower's house has increased slightly more than 16%.



## Proposed GIPSA Rules: Economic Impact

Since it accounts for the grower investment in housing space, pay rate per square foot is a better indicator of average grower return on housing than payment per pound.

Increased inflation-adjusted grower payments are what would be expected from a competitive market. Chicken companies, faced with increasing demand and production requirements, have increased average current dollar payment rates to offset increasing costs, and to encourage growers to expand and improve their facilities. Without the participation of their contract growers and improved chicken performance, chicken companies would not have been able to meet increasing demand, while simultaneously reducing real costs and retail prices.

Chicken companies and growers have shared the benefits of improved performance. To stimulate the necessary grower production and investment to meet increasing demand, chicken companies have not had to increase their current dollar average payment rate per pound as much as would have been needed without these performance gains. At the same time, due in large part to performance improvements made possible by chicken company investments in genetics, growers have received higher inflation-adjusted payments per square foot of their housing.

**Economic Growth and Employment:** Expansion of the U.S. chicken sector has enabled chicken companies to contribute to overall U.S. economic and job growth. Direct employment effects have been seen in the chicken companies themselves, and among their contract growers. The industry currently directly employs about 360,000 people in its U.S. operations. In addition, about 20,000 contract growers produce the live birds to supply chicken company processing plants.

Indirect job and economic benefits from chicken company growth have occurred in food retailing, grain/soybean/feed ingredient production, export services, foodservice providers, equipment suppliers, packaging suppliers, transportation, animal health suppliers, and many other sectors.

Since 1960, chicken has been the fastest growing sector in both U.S. and global animal protein production. That growth is largely accounted for by an efficient and effective business model that has innovated, reduced costs, increased product quality, and dramatically increased product offerings.

Imposition of regulations that would reduce the industry's ability to innovate and increase efficiency would damage not only the chicken industry, but the entire U.S. economy. Consumers would pay higher prices, potential job creation would be lost, and export competitiveness would be at risk.

## Proposed GIPSA Rules: Economic Impact

### GIPSA Proposed Rules – Estimates of Economic Impact

The GIPSA Proposed Rules would impose significant added costs on chicken companies. It is likely that the Proposed Rules would, in their individual parts and entirety, have a substantial adverse impact on costs and risks of raising live chickens under contract arrangements with independent growers, to the detriment of the entire chicken industry and consumers.

Potential costs can be broken out into the following categories (*Proposed Rules sections that are related to the effect*). These categories are illustrative, and not intended to be exhaustive.

1. *Reduced Rate of Efficiency Improvements:* Directly and indirectly, the Proposed Rules are very likely to have a negative effect on the level of future productivity gains, and could cause costs to increase above what they otherwise could have been in the absence of the Proposed Rules. To the extent that costs are higher than they would have been in the absence of the Proposed Rules, economic theory tells us that retail chicken prices will also likely be higher. **(201.215, Suspension of Delivery; 201.94, Required Records on Pricing Differentials and Contract Terms; 201.216, Capital Investment Requirements; 201.217, Capital Investment Requirements; 201.214, Tournament Compensation Requirements; 201.3, Expansion Of Authority)**
2. *Increased Administrative Overhead:* The Proposed Rules would require significant additions to documentation for contract terms, grower payment rates, and negotiated capital improvements made to grower facilities. Tournament compensation systems would require additional documentation and increased overhead from segregation by housing type. Termination of a grower that fails to perform under a contract would entail additional documentation. All unique contracts would have to be submitted to GIPSA, with confidential information identified. All of these new requirements would add costs to chicken company overhead. **(201.94, Required Records on Pricing Differentials and Contract Terms; 201.210, Records Related to Contract Payments; 201.213, Contracts to be Submitted to GIPSA; 201.216, Capital Investment Requirements; 201.214, Tournament Compensation Requirements)**
3. *Increased Cost of Litigation:* The Proposed Rules contain numerous requirements and terms that are vague, poorly defined, or defined differently from long standing practice. The lack of clear definition of requirements and terms invites litigation. Even if litigation does not occur, uncertainty about the scope and meaning of the Proposed Rules create disincentives for investment or the introduction of innovative contractual arrangements. In addition, the Proposed Rules would extend USDA's enforcement authority well beyond its historical reach defined in numerous court decisions. The Proposed Rules would impose a set of requirements that may be impossible for chicken companies to meet without breaking and re-drafting existing long term grower contracts, inviting further litigation. The Proposed Rules contain rules and prohibitions in areas of activity that have never been regulated in any other sector of agriculture. Added litigation imposes an unknown, and unpredictable, added cost burden to the

## Proposed GIPSA Rules: Economic Impact

industry. More significantly, the risk of litigation is a disincentive for investment and innovation in the production of live chickens by contract growers. *(All sections of the Proposed Rules are included in this cost category.)*

### 1. Reduced Rate of Efficiency Improvements

Several historical productivity and efficiency trends in live chicken production are shown in the tables on the next page. Improvements in feed conversion, average daily gain, live production per square foot of grower house and mortality are major driving forces behind growth in chicken production, and lower real costs and prices for chicken products. Productivity gains have come primarily from improvements in genetics, feeds, and grower housing.

**Feed Conversion (Feed to Meat Gain):** Feed accounts for most of the cost of raising live chickens. Chicken companies have made significant investments in genetics and feed formulations in order to increase the efficiency of feed conversion and chicken production. Feed conversion is highly correlated with other performance measures. As a result, compared to 1925, in 2010 the amount of feed required to produce a pound of live chicken is less than half, daily gain has increased by more than 5 times, and mortality dropped from 18% to 4%.

U.S. Live Chicken Performance, 1925 to Present

Year	Market Age, Average Days	Market Weight, Pounds, Liveweight	Average Daily Gain, Pounds	Feed Conversion, Pounds of Feed to 1 Pound of Broiler, Liveweight	Mortality, Percent
1925	112	2.5	0.0223	4.7	18
1935	98	2.86	0.0292	4.4	14
1940	85	2.89	0.0340	4	12
1945	84	3.03	0.0361	4	10
1950	70	3.08	0.0440	3	8
1955	70	3.07	0.0439	3	7
1960	63	3.35	0.0532	2.5	6
1965	63	3.48	0.0552	2.4	6
1970	56	3.62	0.0646	2.25	5
1975	56	3.76	0.0671	2.1	5
1980	53	3.93	0.0742	2.05	5
1985	49	4.19	0.0855	2	5
1990	48	4.37	0.0910	2	5
1995	47	4.67	0.0994	1.95	5
2000	47	5.03	0.1070	1.95	5
2010*	47	5.63	0.1198	1.92	4

\*Estimated, May 17, 2010, Source: National Chicken Council and Agri Stats

Chicken companies supply chicks and feeds to contract growers. Chicken companies are able to take advantage of economies of scale, and reduce costs of feed production, chick production, and genetics research. Independent growers could not duplicate chicken company cost

## Proposed GIPSA Rules: Economic Impact

economies or genetics research programs. Chicken companies also offer a stable market for their growers' chickens, and assume all risks of feed cost variation. In recent years that risk has been substantial.

Contract growers supply labor, housing, feeders, water, and the utilities to operate their chicken growing houses. This partnership has resulted in lower costs and increased efficiency for the entire industry.

To realize the potential efficiency of genetics and feeds supplied by the chicken companies, housing and related equipment used to raise live chickens must be regularly improved. However, chicken companies generally contract with growers who own the housing and equipment in it. Thus, chicken companies do not directly determine the quality of facilities or equipment that they depend on to efficiently convert feed into chicken meat, and optimize investments in improved genetics.

To encourage growers to improve their facilities, most chicken companies have put incentives in their contract compensation plans that reward improved feed conversion. In many cases, improving feed conversion has required capital investment in grower housing. In some cases, chicken companies have bargained for improvements in housing as a term in their contracts with independent growers. Growers have also benefited from improved feed conversion. With improved conversion comes higher daily gain. Improved gains increase the pounds per year that a grower can raise in a house, increasing the grower's gross income potential. Since 1990 the average pounds raised per square foot of grower house space has increased by about 16%.

### 20 Years of Chicken Company Live Bird Efficiency Improvements

Year/Item	Market Age, Average Days	Market Weight, Pounds Liveweight	Average Daily Gain, Pounds	Feed Conversion, Pounds of Feed for 1 Pound of Broiler Liveweight	Live Pounds Produced Per Square Foot of Grower House	Mortality Percent
1990	48	4.37	0.0910	2.00	33.1	5
2010	47	5.63	0.1198	1.92	38.5	4
Actual 1990-2010 Difference	-1	1.26	0.0287	-0.08	5.4	-1
Actual % Difference	-2%	29%	32%	-4%	16.3%	-20%
1990 Performance at 1990						
Liveweight	48	4.37	0.0910	2.00	--	--
2010 Performance Applied to 1990 Liveweight						
	36	4.37	0.1198	1.80	--	--
Difference	-12	--	0.0287	-0.20	--	--
% Difference	-32%	--	32%	-10%	--	--

Sources: Agri Stats, and NCC. 1990 and 2010 live pounds produced per square foot estimated by FarmEcon based on 1993-2009 trend.

As chickens gain weight the efficiency of feed conversion declines. Actual gains in feed conversion have thus been significantly masked by the trend in increasing average market weights. As shown in the table above, at the 1990 average market weight of 4.37 pounds, the 2010 feed conversion standard is about 1.8 pounds of feed per pound of live gain, lower than

## Proposed GIPSA Rules: Economic Impact

the actual average of 1.92 at an average 5.63 pounds of market weight. Over time, feed conversion has improved significantly across the entire spectrum of chicken market weights. Competition among chicken companies has translated these gains into consumer benefits of lower inflation-corrected chicken prices, and increased chicken production.

*Summary:* Since 1990, and corrected for constant market weights, the improvements in both gain rates and improved feed conversion have been significant. Compared to 1990, raising a 4.37 pound live bird now takes 12 (32%) fewer days. Feed conversion has declined from 2.0:1 to 1.8:1 (-10%; lower is better) for a 4.37 pound market weight chicken. Mortality losses also declined by 20%, and average daily gains increased by 32%. Live pounds produced per square foot of grower house increased by about 16%. These increases in efficiency benefited contract growers (increased gross income per pound and per square foot, and more live pounds produced), chicken companies (lower costs and increased sales volume), and consumers (lower inflation-adjusted prices and more chicken consumption).

**Gain from Feed Conversion Improvement:** Feed consumption per bird is calculated as feed conversion times live weight. In 1990 it took 8.74 pounds of feed to produce a 4.37 pound chicken. In 2010 it would take only 7.87 pounds of feed to produce that same live weight chicken, 10% less. The difference of 0.87 (10%) fewer pounds of feed has a current cost of about 10 cents per 4.37 pound bird (at a feed cost of \$225/ton), or 2.3 cents per pound of live chicken.

Had the improvements in feed efficiency in the table on the prior page not occurred, the current conversion rate would be about 10% higher than the actual 2010 of 1.92, or about 2.11 at 5.63 pounds live weight. At 2010 feed costs of about \$225 per ton, improved feed conversion since 1990 will save \$1.1 billion in 2010 feed expense. This cost reduction is a direct result of chicken company innovation and investment. Savings of this magnitude would not have been possible without ongoing improvements in contract grower-owned facilities. The primary beneficiaries of lower costs have been chicken consumers who have enjoyed lower inflation-corrected prices and expanded chicken production. However, chicken growers have also benefited from increased production per square foot of their houses.

At 2010 feed cost per ton, every 0.01 improvement in feed conversion is worth about \$56 million in lower feed costs (table, below). Every loss of 1 point of feed conversion would increase feed costs by that same \$56 million

Value of 1 Point of Feed Conversion at 2010 Production and Costs

Item	Units	2010	1 Point Higher Feed Conversion	Difference
Total Liveweight Production	Billion Pounds	49.6	49.6	0
Feed Conversion	Pounds	1.92	1.93	0.01
Total Feed Used	Million Tons	47.616	47.864	0.248
Feed Cost	Million Dollars	\$10,714	\$10,769	\$56

## Proposed GIPSA Rules: Economic Impact

**Average Daily Gain and Pounds Raised per Square Foot of Grower House:** The 32% increase in average daily gain since 1990 has also been important to lowering chicken production costs. Increasing gain rates by 32% has helped increase the average productivity of housing by about 16% since 1990. Housing investments in ventilation, temperature control, feeders, water distribution and lighting were important contributors to the increase in pounds produced per square foot of grower house. Since growers are typically compensated based on pounds produced, the increase in daily gain has translated directly to improved inflation-corrected grower pay, and improved gross return on house investment.

Put another way, absent the improvement in average daily gain, the 2010 chicken production level would require 16% more housing than is actually the case. For both the grower and the chicken company, the increase in average daily gain has meant that housing is more productive, enabling more pounds of chicken to be raised per year, per square foot. Significant investment in building added square footage of houses has been avoided. Both investment costs and the operating costs required for additional housing have also been avoided.

*2010 Vs. 1990: Housing Cost Savings For a 16% Increase in Pounds Produced per Square Foot  
Based on recent building and operating costs for modern, tunnel ventilation housing*

Item	Live Production '000 Pounds	Live Production Pounds/Sq. Foot	Square Feet Required, '000
1990 Actual	25,549,690	33.12	771,428
2010 Projected	49,593,661	38.51	1,287,813
2010 at 1990 Pounds/Sq. Foot	49,593,661	33.12	1,497,393
Difference in 1,000 Square Feet Required for 2010 Production			209,581
Total Cost Savings at Estimated \$1.79/Sq. Foot (\$Million)			\$375
Investment Avoided at Estimated \$10.10/Sq. Foot (\$Million)			\$2,117

Source: Based on University of Maryland data found at <http://mdchick.umd.edu/Broiler%20Budget.cfm>, Accessed 9/30/2010

A 2009 University of Maryland study (found at <http://mdchick.umd.edu/Broiler%20Budget.cfm>, accessed 9/30/2010) estimates that a modern, tunnel ventilation, broiler house costs \$10.10 per square foot to build and equip. At 1990 house productivity rates, it would take about an extra 210 million square feet of housing to produce the 2010 chicken supply. At current costs, adding those additional square feet would increase the investment cost for chicken housing needed in 2010 by over \$2.1 billion.

In addition, total fixed and variable costs for that extra housing are also avoided. The University of Maryland study estimated \$1.79 per square foot for such costs. The estimated 2010 cost reduction for not requiring the additional square footage is about \$375 million.

**Mortality:** The 20% reduction in mortality since 1990 also has an economic value. The reduction in mortality implies that 2010 chicken marketing will require about 86 million fewer birds placed in houses. Assuming that each bird has an average cost at time of death of about \$1, the 2010 cost reduction is about \$86 million.

## Proposed GIPSA Rules: Economic Impact

**Total Cost and Investment Reduction from 1990-2010 Live Chicken Productivity Gains:** The total annual reduction in 2010 live chicken production costs versus 1990 is about \$1.57 billion per year, or about 3.1 cents per liveweight pound. In addition, the need for grower investment of about \$2.1 billion (based on 2009 construction costs) in an additional 209.6 million square feet of chicken housing was avoided.

**Potential Impact of Specific Sections of the GIPSA Proposed Rules:** Several areas of the Proposed Rules could adversely affect future chicken performance trends, and cause costs to be higher than would be the case under current practices. These are:

*201.215:* Suspension of delivery. The Proposed Rules could make it more difficult to suspend or reduce delivery of birds to growers. In many instances suspensions and reductions promote the interests of both the grower and the chicken company. Hot summer weather, for example, may increase death loss and cause lower performance if birds are placed at normal density. Adverse business developments, such as the 2008-2009 recession, may indicate that placements for a company be reduced or suspended in order to better balance supply with expected demand. If the Proposed Rules force chicken companies to temporarily produce in excess of demand, the market value of chicken products could be reduced below cost. Producing chicken at a loss is not in the best interest of chicken companies, or contract growers.

*201.94:* Required records on pricing differentials and contract terms. The Proposed Rule could cause companies to change payment rates, contract terms and reduce incentive payments, all in order to avoid increased administrative costs and litigation risks. To the extent that current payment rate and contract terms promote increased growers efficiency, those gains could be impinged.

*201.216 And 201.217:* Capital investments criteria. The Proposed Rules would add to the cost of capital improvements, and the risk of litigation by either growers or GIPSA. Companies would be required to maintain additional records on all capital improvements that are negotiated or requested by chicken companies. Chicken companies would also likely feel compelled by litigation risks to maintain additional records on suggested improvements. This section of the Proposed Rules would likely reduce investments by growers to upgrade their facilities. Restrictions and additional recordkeeping requirements add to the costs of improvements, and litigation risks increase if investments do not meet chicken company expectations made known to growers. In addition, restrictions on reducing bird deliveries contained in this section could endanger the welfare of birds, cause increased death loss, adversely affect grower payments to the best performing growers, and increase costs of production.

In summary, adding to costs and complexity of improvements would likely discourage the technical progress that led to the innovation, efficiencies, and cost savings shown above.

*201.214:* Tournament systems. Parts (a) and (b) of this proposed rule could significantly reduce incentives for chicken growers to invest in their facilities. Part (a) could cause substantial changes in payment rate schedules that could alter incentives and cause loss of goodwill between chicken companies and their growers. Part (b) could also mean that growers with less-

## Proposed GIPSA Rules: Economic Impact

efficient housing would not have to compete with more modern, efficient, facilities. The incentives for grower improvements could therefore be significantly reduced.

The Proposed Rules would distort market-based prices and terms contained in chicken company contracts with growers. The proposed rules could distort economic signals for both growers and chicken companies. The result would likely be reduced rates of efficiency improvements and innovation that benefit the entire chicken industry and consumers.

*201.94: Required records on pricing differentials and contract terms:* The added cost burdens imposed by the Proposed Rules could cause chicken companies to make sub-optimal decisions on grower payments in order to avoid administrative costs and risks of having documented differentials litigated. That is, chicken companies may elect to reduce grower payment differentials in order to avoid administrative costs and potential litigation. To the extent that these differentials reflect true underlying costs and efficiencies, distortions caused by the Proposed Rules could cause payment rates that deviate from underlying costs of production. The most effective producers could be under-compensated, and the least effective could receive compensation in excess of the true market value of their services.

*201.214: Tournament compensation requirements:* The equal base pay requirements of this section would create incentives for chicken companies to change the definition of "Base Pay" from current use, often "expected pay for average performance", to a minimum pay rate of the lowest performing grower. Under the PR all growers would likely see lower base payments. All growers would receive either the base pay, or base pay plus a premium.

Current payment scales have been established over many decades of negotiation between growers and chicken companies. Imposing regulatory rigidity and forcing the re-writing of base pay and performance payment scales could be difficult, and entail substantial investment in time and resources. Long standing relationships between growers and chicken companies could also be damaged.

Growers across a chicken company's trade area may also face cost differentials for utilities, construction, land and other inputs. In the current environment, base pay is often adjusted to reflect these local cost differentials. The equal base pay requirement could cause growers with relatively high costs to be at a competitive disadvantage to growers in lower cost areas unless chicken companies document differentials and incorporate them into contracts.

Taken together, sections 201.94 and 201.214 could require detailed examination, documentation, and re-drafting, of all 20,000 current grower contracts. The costs for these changes is expected to be substantial, and would likely result in litigation by those who feel that they have been damaged by changes in contract terms.

**Potential Cost Impact:** FarmEcon projects that reduced incentives for investment in grower housing, potential distortions caused by changes in tournament incentive systems, and increased risk of litigation could cause performance gains to slow, but not stop. Chicken companies will likely continue to improve genetics and feeds, but housing investment and



## Proposed GIPSA Rules: Economic Impact

grower management needed to optimize chicken performance improvement potential will suffer. Based on historic trends the following effects of the Proposed Rules are used to estimate the cost of lost performance:

1. For the first five years of Proposed Rules' enforcement, feed conversion gains at forecast (increasing) market chicken liveweights are projected to slow from 1 point (0.01) per year under current conditions to 0.2 points (0.002) under the Proposed Rules.
2. The trend increase in pounds produced per square foot of grower housing could decrease from 0.32 pounds per year to 0.16 pounds per year, for the first five years of enforcement.
3. Mortality could increase by 0.08% per year over the long term trend for the first five years of enforcement.

**Impact on Feed Costs:** The Proposed Rules' potential effect on live production feed costs, at \$200/ton cost of feed, is shown in the table below. In the 5<sup>th</sup> year additional feed costs would be \$223 million. The total feed cost impact over the first 5 years of enforcement is estimated to be \$644 million.

Estimated Impact on Feed Conversion and Feed Expense

Year	Chickens Marketed	Average Live Weight Pounds	Live Marketings Pounds	No PR			No PR Feed Consumed Tons	PR Feed Consumed Tons	Feed Cost	PR Feed Cost
				FC	PRFC	FC Loss				
2011	8,700,000,000	5.69	49,503,000,000	1.910	1.918	0.008	47,275,365	47,473,377	\$200	\$39,602,400
2012	8,874,000,000	5.75	51,025,500,000	1.900	1.916	0.016	48,474,225	48,882,429	\$200	\$81,640,800
2013	9,051,480,000	5.81	52,589,098,800	1.890	1.914	0.024	49,696,698	50,327,768	\$200	\$126,213,837
2014	9,232,509,600	5.87	54,194,831,352	1.880	1.912	0.032	50,943,141	51,810,259	\$200	\$173,423,460
2015	9,417,159,792	5.93	55,843,757,567	1.870	1.910	0.040	52,213,913	53,330,788	\$200	\$223,375,030
Total 5 Year Cost										\$644,255,528

PR = Proposed Rules; FC = Feed Conversion

**Impact on Cost of Housing:** Projected lower pounds produced per square foot of grower housing caused by the Proposed Rules would increase the housing area required. Based on the University of Maryland's study's estimated costs, fixed and variable housing costs would increase by about \$51 million per year in the 5<sup>th</sup> year of enforcement. In addition, about \$289 million in added grower capital investment would be required over the 5 years. All annual recurring costs for that investment are included in the estimated additional fixed and variable costs.

**Impact on Mortality Costs:** The estimated 0.08% per year increase in mortality due to the Proposed Rules would increase live production bird mortality cost by about \$38 million in the 5<sup>th</sup> year of Proposed Rules enforcement. The estimated cost for increased mortality over 5 years is about \$110 million.

## Proposed GIPSA Rules: Economic Impact

### Estimated Impact on Housing Requirements, Expense and Grower Investment

Year	Live Chicken Production Million Pounds	No PR Live Pounds Per Sq. Foot	PR Live Pounds Per Sq. Foot	No PR Required Sq. Feet, Millions	PR Required Sq. Feet, Millions	Added Square Feet Required, Millions Annual	Added Annual Fixed and Variable Costs at \$1.79/Sq. Foot, \$Million	Added Annual Grower Housing Investment at \$10.10/Sq. Foot, \$Million
2011	49,503	38.8	38.7	1,275	1,280	5.33	\$9.53	\$53.79
2012	51,026	39.2	38.8	1,303	1,314	5.52	\$19.41	\$55.73
2013	52,589	39.5	39.0	1,332	1,349	5.71	\$29.64	\$57.71
2014	54,195	39.8	39.2	1,361	1,384	5.92	\$40.23	\$59.75
2015	55,844	40.1	39.3	1,392	1,420	6.12	\$51.18	\$61.83
Total Added Cost and Grower Housing Investment						28.59	\$149.99	\$288.80

PR = Proposed Rules

### Estimated Impact on Mortality and Costs

Year	Chickens Marketed	No PR Mortality, Percent	PR Mortality, Percent	Increased Mortality, Birds	Increased Mortality Cost @ \$1/Bird
2011	8,700,000,000	4.00%	4.08%	6,960,000	\$6,960,000
2012	8,874,000,000	3.90%	4.06%	14,198,400	\$14,198,400
2013	9,051,480,000	3.80%	4.04%	21,723,552	\$21,723,552
2014	9,232,509,600	3.70%	4.02%	29,544,031	\$29,544,031
2015	9,417,159,792	3.60%	4.00%	37,668,639	\$37,668,639
Total 5 Year Cost				110,094,622	\$110,094,622

PR = Proposed Rules

**Total Bird Performance and Mortality Cost Impact:** In the first 5 years of the Proposed Rules' enforcement, reduced bird performance and increased mortality are estimated to increase live chicken production costs by \$904 million.

**Impact on Ownership of Housing:** Due to capital investment costs, and the past performance of capable independent growers, chicken companies have been reluctant to own or lease live production assets. However, the Proposed Rules do not apply to fully integrated, company-owned or leased, live production facilities. Chicken companies, at some point, may find that owning, or leasing, their live production assets will more effective than contract production.

The extent of any conversion to company-owned facilities would depend on chicken company experience in the first few years of implementation of the Proposed Rules. Companies may choose to operate under the Proposed Rules, and still attempt to remain competitive. However, benchmarking and performance monitoring systems used by chicken companies would reveal any competitive disadvantage of operating under the currently Proposed Rules.

If companies determine that compliance with the Proposed Rules would cause a cost disadvantage, it is likely that some contract live production would move to company-owned or leased housing. For the most part, company housing would likely be larger, and more efficient,

## Proposed GIPSA Rules: Economic Impact

than contract houses replaced. To the extent that this conversion takes place, any impact of fully integrated housing investment would likely fall on smaller, lower productivity growers who depend on contracting for a secure and predictable income source.

If only 10% of 2015 production were to be moved from contract growers to company-owned facilities it would require about 3,700 modern chicken houses and about \$1.3 billion of invested capital. Most of the housing would likely be new construction to replace grower's older facilities, but some could also be purchased or leased from contract growers. Ongoing live production costs, and risks of litigation, would likely be somewhat reduced by the investment.

### 2. Increased Administrative Costs

Under the Proposed Rules there are significant additions to the records that chicken companies would be required to generate and retain. Several specific sections of the Proposed Rules would likely increase administrative costs. The analysis below focuses on only the most significant of the potential costs.

**201.94 (b): Records justifying pricing differentials:** Chicken companies would be required to document, in writing, the business case for any differentials in payment rates or contract terms for their contract growers.

*Administrative Cost Burden:* Without detailed knowledge of all current chicken company records systems it is difficult to estimate the additional administrative costs. However, to the extent that chicken companies would choose to not pay growers based on the true value of their services, this requirement would likely impose a lost performance cost burden far in excess of any administrative burden.

**201.210 (a) (3): Unfair, unjustly discriminatory and deceptive practices or devices:** Chicken companies would be required to offer each grower, upon request, detailed statistical information documenting the calculation of payment rates for each delivery of birds. Though not entirely clear, required information would apparently include, but not be limited to, feed conversion, feed analysis and history of the breeder flock supplying the contractor.

*Administrative Cost Burden:* Most companies already offer detailed settlement statements, including feed conversion, which would come close to meeting most of the requirements for grower payments. However, feed analysis and breeder records are not generally included in the data available to growers. Assuming these items are required, the costs would be substantial.

Currently, chicken companies do not routinely assay feed loads delivered to growers. FarmEcon estimates that including a very basic feed assay for each load of feed delivered to a grower would cost about \$10 per sampled load for an assay, and \$2 for administrative expenses (table, next page). The average load of feed delivered to a grower is estimated to be a full truck, 24 tons. In some cases growers may receive partial truck loads, but 24 tons is the maximum allowed load normally delivered. The calculation in the table is for the minimum number of feed loads required for the estimated chicken production, and for a basic assay only. Partial feed loads, or a more extensive assay requirement, would significantly increase costs.

## Proposed GIPSA Rules: Economic Impact

### Cost of Compliance with Proposed Rules Requirement for Delivery of Feed Analysis Data

Year	PR Feed Consumed, Tons	Average Feed Load, Tons	Feed Load Samples to be Assayed	Assay Cost per Sample	Administrative Cost Per Feed Load	Total Cost
2011	47,473,377	24	1,978,057	\$10	\$2	\$21,758,631
2012	48,882,429	24	2,036,768	\$10	\$2	\$22,404,447
2013	50,327,768	24	2,096,990	\$10	\$2	\$23,066,893
2014	51,810,259	24	2,158,761	\$10	\$2	\$23,746,369
2015	53,330,788	24	2,222,116	\$10	\$2	\$24,443,278
<b>Total 5 Year Cost</b>						<b>\$115,419,618</b>

PR = Proposed Rules

Breeder history is available in many companies' records. Including those records in grower settlements would add a cost burden for revising the payment system to include that information. The administrative cost is not known, but would not be expected to be material. However, breeders typically produce chicks in a 40 life week cycle: Growers receiving chicks at the beginning of a cycle would have little or no history. Growers receiving chicks at later points in the cycle would have more history. The difference in records is unavoidable, and could lead to increased risk of litigation between growers and chicken companies. The Proposed Rules also do not define the exact details of the breeder or feed records to be made available, also possibly leading to litigation.

**201.213 (a through e): Livestock and poultry contracts:** Chicken companies would be required to submit to GIPSA a copy of every unique contract, with business-sensitive language indicated.

*Administrative Cost Burden:* The administrative costs of submitting contracts to GIPSA is not expected to be material to chicken companies, but publicly disclosing individual contract terms and formats could adversely affect competition.

**201.214 (a) (b): Tournament systems:** Chicken companies operating tournament pay incentive programs would be required to pay all growers the same base pay, and group growers by housing type. Administrative costs for re-drafting contracts and running several tournament sub-systems could be incurred.

*Administrative Cost Burden:* All contracts could need to be eventually re-drafted to accommodate Proposed Rules-specific arbitration language. However, the Proposed Rules would impose additional requirements that imply changing base pay. Incentive payment programs are also likely to be revised.

Companies could add specific guaranteed premiums to base pay for prior contractual agreements, especially for capital improvements and cost differentials. In fact, such documented premiums to base pay are likely required under the Proposed Rules.

Companies may also choose to make extensive changes in their incentive payments programs so as to avoid over-payment for below-average grower performance. Companies will likely

## Proposed GIPSA Rules: Economic Impact

decide to guarantee less of the grower payment as base pay, and make more subject to performance incentives.

An estimate of the cost of amending all contracts is on page 21.

**201.216 (e through h) And 201.217 (a): Capital investments criteria:** For any negotiated capital investment a chicken company would be required to maintain complex records to show the business case for the investment, and that the grower can be expected to recover at least 80% of the investment cost. Such a business case entails many factors, some of which are subject to variation beyond the control of both the chicken company and the contract grower.

*Administrative Cost Burden:* Most companies already present growers with estimates of expected costs and returns for both negotiated and suggested improvements. However, maintaining detailed records, including a business case and tracking actual results, for each capital improvement for each grower could entail a significant administrative cost burden.

**201.3 (d) And 201.214 (a): Implementation Administrative Costs:** As written, the Proposed Rules would also likely be difficult and expensive to implement. Existing contracts would apparently not come under the Proposed Rules until they are entered into, amended, altered, modified, renewed or extended. The provisions of the Proposed Rules are thus potentially tied to the various lengths of approximately 20,000 individual grower contracts.

To the extent that there are existing long term, multi-year, grower contracts the effect of the Proposed Rules would be potentially to spread out over a multi-year time horizon. For a considerable period of time chicken companies could have some growers that are covered by the Proposed Rules, and others that would operate under current rules.

For live production, some companies could need to operate their production programs as if they were two separate entities. One entity would operate under existing rules, the other under the Proposed Rules. As contracts meet the criteria for inclusion under the Proposed Rules, growers would move from the entity operating under current rules to one using the new rules. In the meantime, the chicken company would need to duplicate its live production contract compensation administrative systems and costs.

Growers and companies could mutually agree to amend long term contracts, and comply with the Proposed Rules, but there is no guarantee that this would be the case.

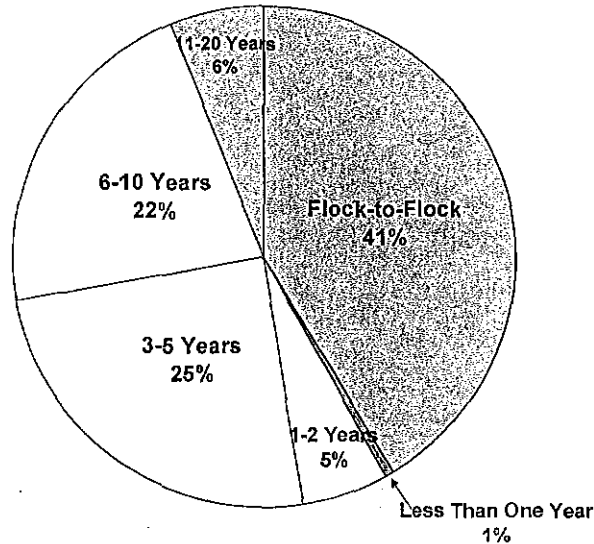
A September 2010 National Chicken Council survey showed a wide range for length of grower contracts. Some existing contracts extend as far as 20 years, and almost 60% are longer than flock-to-flock. It is assumed that flock-to-flock contracts are construed to be "extended" when the next flock is delivered, and the Proposed Rules would become effective at that time.

Section 201.214 of the Proposed Rules poses a particularly difficult and significant set of implementation issues for chicken companies with diverse or multi-year contract lengths. This section of the Proposed Rules dealing with tournament incentive programs states:

## Proposed GIPSA Rules: Economic Impact

"If a live poultry dealer is paying growers on a tournament system, all growers raising the same type and kind of poultry must receive the same base pay. No live poultry dealer shall offer a poultry growing arrangement containing provisions that decrease or reduce grower compensation below the base pay amount."

Lengths of Grower Contracts, September, 2010  
(20 Companies, >70% of U.S. Production, 12,213 Contracts)



Source: National Chicken Council Survey, September, 2010

This Proposed Rule related to base pay clearly states that all growers raising the same type and kind of poultry will receive the same base pay. Elsewhere in the Proposed Rules, existing contracts with different pay rates are allowed to remain in effect until they are amended, altered, modified, renewed or extended. A chicken company attempting to implement the rule is faced with a contradiction. The company must either be in violation of the Proposed Rules, or amend existing long term contracts to bring them into compliance.

Assuming that contracts longer than flock-to-flock must be amended prior to expiration to be in compliance, there are approximately 11,800 contracts (59% of 20,000 total contracts) affected. Each long term contract will require negotiation with a grower, and re-drafting to include grower-specific language pertaining to past negotiated payment differentials, and the new housing type segregation requirement. It is estimated that amending each contract will require 1 hour of attorney time at \$250 and 2 hours of administrative time at \$25 per hour, for a total cost of \$300 per contract. The one-time cost is estimated to be \$3,540,000.

In addition, approximately 8,000 flock-to-flock contracts would also need to be immediately re-drafted at an estimated administrative cost of \$300 each, for a total cost of \$2,400,000. The total cost of re-writing all 20,000 grower contracts is estimated to be about \$6,000,000. To the

## Proposed GIPSA Rules: Economic Impact

extent that affected growers, or GIPSA, might perceive that amended contracts would not be as favorable as existing contracts, there is further increased risk of litigation and costs.

### 3. Increased Litigation Costs

Substantially increased litigation costs would likely be incurred by chicken companies as a result of the Proposed Rules. Those costs would come from a combination of proposed expansion of regulatory authority, ambiguous language and contradictory requirements. The cost of potential litigation is unknown, but likely to be material.

These specific sections of the Proposed Rules could materially increase litigation costs:

*201.219:* Arbitration rights, costs and limits. The proposed arbitration requirements would discourage the use of arbitration and substitute litigation for conflict resolution. Companies have frequently experienced higher costs for litigation than arbitration. In addition, only contract disputes could be arbitrated under the Proposed Rules. Disputes frequently involve both contract and non-contract issues. Even if arbitration was offered and accepted, litigation for non-contract issues would be necessary. The cost of potential litigation is unknown, but likely to be material.

*201.94:* Records justifying pricing differentials. The proposed requirement invites litigation for the purpose of examination of detailed chicken company records on contract payment terms, costs and payment rates. The cost of potential litigation is unknown, but likely to be material.

*201.214:* Tournament systems. The Proposed Rules would require significant adjustments in existing contract base pay, incentive pay, and tournament groupings. Growers who feel that they have been harmed by contract revisions are likely to seek remedy through the courts and through GIPSA. The cost of potential litigation is unknown, but likely to be material.

*201.216 And 201.217:* Capital investments criteria. Growers who see capital investment results that do not meet documented expectations are likely to litigate. The cost of potential litigation is unknown, but likely to be material.

*201.3* Applicability of regulations. This section seeks to significantly enlarge the scope of GIPSA enforcement authority. It can be expected that this section of the Proposed Rules would engender substantial litigation. The costs of litigation are expected to be material.

**Vague Language:** The Proposed Rules incorporate vaguely defined new requirements using imprecise language that invites litigation to determine the limits of meaning of the Proposed Rules in the context of the chicken company/contract grower relationship. Terms that are not well-defined include, but are not limited to (*Relevant Section*):

- *201.20:* "reasonable person": What is the definition and limit of reasonable? Because of changing context, determinations made by GIPSA or lay juries could effectively decide business questions on the basis of rough-cut judgments as to what is considered fair and

## Proposed GIPSA Rules: Economic Impact

equitable. Those decisions could vary by time and place, and thus fail to establish a meaningful standard.

- *201.94: "written records":* What are the standards for details of these records? How extensive do they need to be?
- *201.214: "base pay":* This term is redefined by the Proposed Rules from current common usage. The most common current definition is a pay rate based on average grower performance. Actual pay rates for individual growers may vary, and be above or below the current definition of base pay. The Proposed Rules redefine "base pay" as a minimum pay rate that all growers must be paid, regardless of performance. This redefinition is likely to result in litigation from disgruntled growers who might see their contract base pay reduced to accommodate the Proposed Rules.
- *201.214: "like house types":* There is no current industry-wide standard definition for the term "house type". The lack of a standard invites litigation to determine the limits of the meaning of the Proposed Rule.
- *201.216: "similarly situated":* What is the limit on permissible differences that are in excess of "similar?" The lack of a standard invites litigation to determine the limits of the meaning of the Proposed Rules.
- *201.216: "reasonably be expected":* Determination of "reasonably" will vary from time to time, and will depend on numerous, changing, assumptions. What are the limits of "reasonably?"
- *201.217: "reasonable time period"* Determination of "reasonable time" will vary from time to time. What are the limits of "reasonable time?"
- *201.217: "adequate compensation incentives":* What is the definition of adequate? Is it 80%, 90%, 95%, or 110% of expected costs?
- *201.217: "good working order"* What are the limits of "good working order?" For example, if 90% of a house's design ventilation is being achieved, is that "good working order", or is it 85%, 95%, or 100%, or some other percentage?
- *201.218: "include, but are not limited to":* What other criteria can be used to determine compliance? The Proposed Rules in several places do not clearly state the limits of the proposed regulations, inviting litigation to enlarge the scope of regulatory authority. The Proposed Rules invite GIPSA to enforce compliance based on criteria that are not written into the Proposed Rules.
- *201.219: "reasonable discovery":* Determination of "reasonable discovery" may vary from time to time and case to case. What are the limits of "reasonable discovery" with respect to company records?



## Proposed GIPSA Rules: Economic Impact

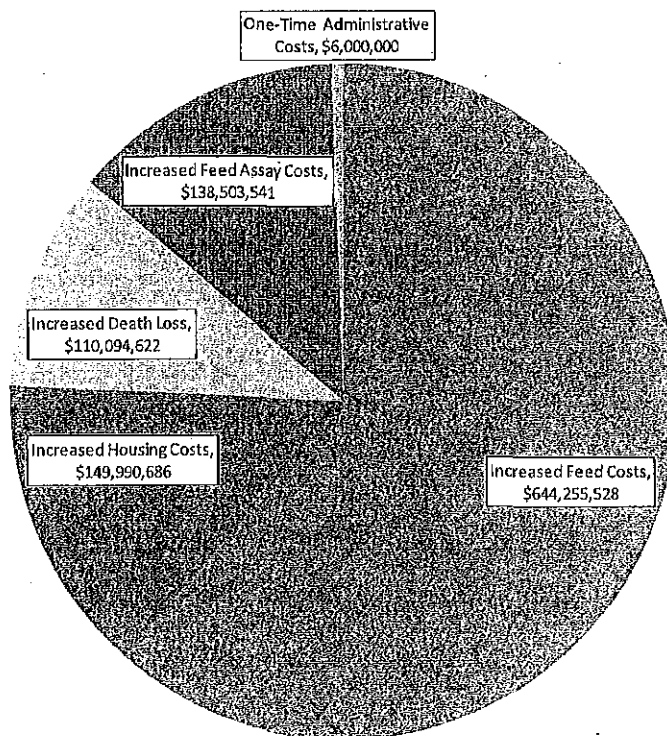
**Cost Burden:** If adopted in their current form the Proposed Rules would expose chicken companies and growers to large, unknown, and unknowable, risks of increased litigation costs. The business environment under the Proposed Rules would be one of greatly increased risk and uncertainty that discourages investment and innovation.

The Proposed Rules could also encourage chicken companies to escape GIPSA regulation altogether by investing in company-owned or leased growing facilities. The Proposed Rules may increase the incentives for chicken companies to make investments solely to escape the risks and cost burdens of the rules. Such decisions, driven by regulations, are not likely to be economically efficient to the extent that they are driven by other than market forces. Decisions to move to full vertical integration with company-owned or leased facilities are also likely to do significant harm to the very growers that the proposal is intended to protect.

### Total Cost Burden:

**Identified Cost Burden:** The total identified Proposed Rules cost burden is shown in the table and pie chart below. The identified cost burden increases over time, reaching about \$337 million in 2015. The total identified cost over the first 5 years is about \$1.03 billion. Costs would likely continue to increase beyond the 5 year horizon of this study.

Identified Total 5 Year Cost Increases Associated With the GIPSA Proposed Rules



## Proposed GIPSA Rules: Economic Impact

### Identified Cost Increases Associated With the GIPSA Proposed Rules

Year	Increased Feed Costs	Increased Housing Costs	Increased Death Loss	Increased Feed Assay Costs	One-Time Administrative Costs	Total
2011	\$39,602,400	\$9,533,249	\$6,960,000	\$21,758,631	\$6,000,000	\$83,854,280
2012	\$81,640,800	\$19,409,608	\$14,198,400	\$22,404,447		\$137,653,255
2013	\$126,213,837	\$29,637,641	\$21,723,552	\$23,066,893		\$200,641,924
2014	\$173,423,460	\$40,226,127	\$29,544,031	\$23,746,369		\$266,939,987
2015	\$223,375,030	\$51,184,061	\$37,668,639	\$24,443,278		\$336,671,008
<b>Total</b>	<b>\$644,255,528</b>	<b>\$149,990,686</b>	<b>\$110,094,622</b>	<b>\$115,419,618</b>	<b>\$6,000,000</b>	<b>\$1,025,760,453</b>

**Unidentified Cost Burden:** There are significant additional costs that are also likely to be imposed by the Proposed Rules. These costs either cannot be estimated at this time, or are beyond the scope of the comments.

*Litigation costs:* In addition to the identified costs above, the Proposed Rules would also impose substantial, but unknown, risks of increased litigation and attendant legal costs. The extent and cost of increased litigation is impossible to identify with any degree of certainty, but would very likely be material to the financial health of the entire industry. Higher litigation costs alone could have a negative effect on growers, chicken companies, USDA and consumers. Indirectly, the increased threat of litigation will have a chilling effect on innovation and investment. To the extent that the Proposed Rules slow innovation and investment, the entire chicken industry, including its growers, would suffer, and consumers will experience higher prices.

*Reduced Competition in Related Product Markets:* The Proposed Rules are likely to reduce competitive forces both among chicken companies and within the entire meat and poultry production system. Increased costs and reduced rates of chicken production innovation could lower the incentives that an efficient and price competitive chicken industry create for beef and pork producers. The result could be higher costs, and higher retail prices, of competing meats.

*Reduced Competitiveness in Export Markets:* To the extent that the Proposed Rules would unilaterally apply to only U.S. chicken producers, they would likely result in reduced global competitiveness, and long term loss of export market volume and value, and increased pressures for U.S. chicken imports. Export losses and/or import increases would reduce demand for, and production of, U.S. chicken. Lower exports and/or higher imports would damage the U.S. trade position and result in job losses in chicken production and allied industries. Included in those job losses would be fewer chicken growers. Brazil, our major chicken export competitor, would likely become the only major economic beneficiary of the Proposed Rules.

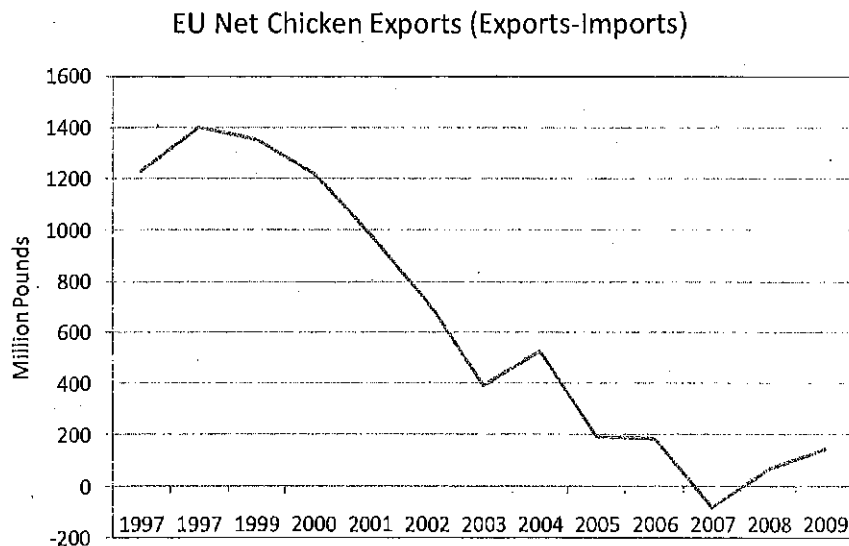
Evidence of the potential size of trade damage done by unilateral regulatory action can be seen in the historical record of the EU chicken market (chart, next page). EU chicken net exports had been increasing the late 1990s. Following the EU's 1999 unilateral abolition of sub-therapeutic antibiotics used in chicken production, EU chicken production costs increased. Higher EU costs

## Proposed GIPSA Rules: Economic Impact

led to a significant loss of trade competitiveness. That, in turn, contributed to a sharp 1.1 to 1.3 billion pound decline in annual EU chicken net exports (graph, next page). In 2007 the EU actually imported more chicken than it exported. U.S. chicken exports increased by about 2 billion pounds per year after 1999, partly as a result of the EU's lost competitive advantage.

At 2009 average U.S. prices, lost net export volume experienced by the EU in 2009 versus 1998 would cost the U.S. chicken industry about \$495 million in lost export value. The price used for this calculation was based on the 2009 U.S. average leg quarter price. Leg quarters are the dominant form of U.S. chicken meat exports.

A major loss of export volume would lower income for U.S. chicken producers, contract chicken growers, and all other economic entities that benefit from U.S. chicken exports. Jobs would also be lost. About 9,000 chicken industry jobs, and 500 contract growers, would be no longer needed as a result of an export volume loss similar to the one seen in the EU.



Source: USDA/FAS, PS&D Database, Found at <http://www.fas.usda.gov/psdonline/psdQuery.aspx>, Accessed 10/29/2010

*Summary:* Unidentified cost burdens are likely to add significantly to the overall cost of the Proposed Rules. Higher costs could lead to higher consumer prices, loss of competitive advantage, and a substantial loss of U.S. chicken exports. Associated with these increased costs and lower exports, there likely would be a loss of jobs in the chicken industry, its supplier companies, and among its contract growers.

## Summary and Conclusions

Without proof of economic harm, GIPSA has proposed a set of rules that basic economic analysis strongly suggests could result in significant increases in chicken production costs. In addition, GIPSA is proposing to significantly increase its enforcement powers beyond the "proof

## Proposed GIPSA Rules: Economic Impact

of competitive harm” limits that courts have applied to actions brought under the Packers and Stockyards Act.

The proposed rule changes are likely to slow the pace of innovation, increase the costs of raising live chickens, and result in costly litigation. Identifiable cost increases for lost performance, increased bird mortality, and feed assays total an estimated \$337 million in the 5<sup>th</sup> year of Proposed Rules enforcement. Total identifiable cost increases over the first 5 years of enforcement total almost \$1.03 billion. Higher costs would put upward pressures on chicken prices, and economic theory strongly suggests that consumers would ultimately bear most of those costs.

Additional, but unknown, costs could arise from increased litigation and difficulties in phasing in the new rules on a contract-by-contract basis. These added, but unknown, expenses would be forecast to be material to the industry, and ultimately consumers.

To the extent that the rate of introduction of cost reducing chicken production innovation would be slowed by the Proposed Rules, competitive pressures on other meat producers would also be reduced. Costs of producing competing meat could also be increased, harming those industries, consumers, and the U.S. trade balance.

The Proposed Rules place cost burdens and regulatory restrictions on U.S. broiler companies that do not apply to foreign competitors. To the extent that U.S. chicken company competitiveness in global markets is reduced, U.S. chicken net exports would likely decline in a manner similar to the recent decline in EU chicken net exports. Export competitor countries such as Brazil could reap significant benefits from the Proposed Rules:

GIPSA has not identified any economic benefit gains, or cost reductions, that would arise from the Proposed Rules and justify changes in current grower contract arrangements. Neither has GIPSA identified any significant abuse of market power nor proof of harm that would justify increasing the reach of its regulatory authority beyond the damage to competition that courts have repeatedly, and consistently, ruled apply to the Packers and Stockyards Act.



AMERICAN FARM BUREAU FEDERATION\*  
600 Maryland Ave. SW | Suite 1000W | Washington, DC 20024

ph. 202.406.3600  
f. 202.406.3606  
www.fb.org

January 10, 2011

The Honorable Darrell Issa  
Chairman  
House Committee on Oversight  
and Government Reform  
2157 Rayburn House Office Building  
Washington, DC 20515

Dear Mr. Chairman:

Thank you for your letter requesting the assistance of the American Farm Bureau Federation (AFBF) in “identifying existing and proposed regulations that have negatively impacted job growth” in the agricultural sector. Your letter also solicited our suggestions for “reforming identified regulations and the rulemaking process.” We are pleased to respond to your request.

Unfortunately, the list of recent Federal regulatory actions that have had or may have a negative economic impact on the agriculture sector is long. The attached chart outlines some of the more important regulatory actions that have recently occurred or are in the process of being implemented. Where appropriate, we have identified specific remedies to the rule in question or more general reform of the rulemaking process that might help prevent a recurrence of abuse in the process.

The attached chart is not exhaustive. We have done our best to identify these immediate issues but also wish to draw your attention to additional policy matters that merit the committee’s attention. I will elaborate on these in a supplemental submission to the committee but I would like to draw your attention here to several matters that we believe also have significant economic implications, as well as due process concerns of the regulated community.

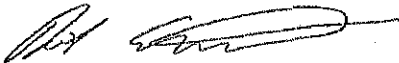
1. *Use of settlement agreements.* In a number of instances, EPA has utilized unilateral settlement agreements with environmental organizations to achieve policy ends outside the normal APA process. This is a serious matter that deserves the committee’s scrutiny and we would urge that you share your findings with the House Committee on the Judiciary, which has jurisdiction over the Administrative Procedures Act.
2. *Non-disclosure of disbursement of public funds.* The United States government pays millions of dollars annually in court costs and attorney fees to environmental activists and others who file actions against the United States. This money is paid from a Judgment Fund, and in some cases is paid from agency budgets. Entities do not have to

win their cases in order to be awarded fees and costs. In many cases, agencies settle with these groups and pay their costs. Until 1995, the Administrative Conference of the United States filed reports on some of these expenditures, and the Department of Justice filed reports on money paid from the judgment fund. In 1995, the ACUS was deactivated, and reporting requirements by DOJ were repealed as part of a paperwork reduction effort. These funds are now paid to groups that sue the government, and there is no accountability for these taxpayer funds being spent. ACUS was reauthorized in 2010 and public disclosure of these disbursed sums should be made.

3. *Use of computer modeling.* Use of computer models received much attention in the context of the global warming/climate change debate and the committee should look into the use of computer models in its review. Two recent instances of concern are the computer model used by EPA in its Chesapeake Bay TMDL and EPA's announced intention to give particular weight to modeling scenarios in determining NAAQS compliance even when actual data may conflict.
4. *Data Quality Act.* The committee may wish to evaluate whether the Data Quality could be strengthened by amending the law to provide for judicial review of such determinations.

We strongly support your committee's effort to exercise its oversight authority in this area, and we would encourage you as well to share your findings with the relevant committees of jurisdiction so that they may evaluate possible changes to the underlying statutes when appropriate. We will be pleased to work with you as the committee proceeds with its inquiry. If you have any questions about this subject, please contact Paul Schlegel at (202) 406-3687.

Sincerely,



Bob Stallman  
President

Cc: The Honorable Elijah Cummings

**Agency:** EPA  
**Issue:** Re-consideration of Atrazine  
**Status:** EPA will have further hearings in the spring of 2011  
**Discussion:** In 2009, in response to requests from environmental activists, EPA re-opened the re-examination of Atrazine's use as an agricultural herbicide, even though the chemical went through the normal re-registration process in 2006 and is not due for reconsideration until 2013. Atrazine is widely used in agriculture and is particularly important in the planting and harvest of corn and sorghum. The chemical has been the subject of numerous scientific studies (some estimates place the number at over 6,000). EPA's decision to re-open the registration of Atrazine is virtually unprecedented and has caused great anxiety among farmers who depend on this crop protection tool. Were Atrazine removed from the market, its removal could seriously erode farmers' profitability. (Notably, this chemical is particularly important in no-till agriculture, which has gained increasing acceptance over the last few decades and has been cited by some as an important means of keeping carbon stored in the soil.)

**Agency:** EPA  
**Issue:** Clean Water Act Permits for Normal Pesticide Use  
**Status:** EPA is planning to promulgate a new permit program by April 9, 2011  
**Discussion:** In 2009, a three-judge panel from the 6<sup>th</sup> Circuit Court handed down an unprecedented ruling. Ignoring nearly four decades of law, the court invalidated an EPA rule and declared that when a farmer uses a pesticide – even in complete accordance with Federal requirements under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) – that use may constitute a “discharge” under the Clean Water Act; the pesticide's use, therefore, according to the Court, requires a national pollutant discharge elimination system (NPDES) permit under Federal law – even though that use is currently regulated under FIFRA and FIFRA label instructions incorporate findings related to water quality impacts. The Secretary of Agriculture asked the Administrator of EPA to appeal this ruling and to defend its own rule but the agency failed to defend its own regulation. Instead, the agency is proposing a permit system that will be put in place by April 9, 2011 – a system that, by one estimate, would require 5.6 million application of pesticides by 365,000 applicators to have permits. Moreover, the agency in its original proposal opened the door to requiring NPDES permits for virtually *any* application of a FIFRA registered chemical – even when the application is done strictly in accordance with the FIFRA label. The economic impact of this policy change could be enormous. It will not only raise the costs of farming; it will potentially subject farmers and ranchers to lawsuits from environmental organizations who have philosophical objections to any pesticides.

**Recommendation:** Adopt legislation to clarify that application of FIFRA-registered pesticides do not require an NPDES permit when applied in conformance with the FIFRA label. (Bipartisan legislation was introduced in the 111<sup>th</sup> Congress to remedy this issue.)

**Agencies:** EPA and the Army Corps of Engineers (COE)

**Issue:** Regulatory treatment of prior converted croplands (PCC)

**Status:** Ongoing

**Discussion:** In 1993, the Clinton Administration issued a regulation to clarify the regulatory treatment of prior converted croplands. (NOTE: Prior converted croplands are wetlands that were drained before 1985 and that no longer exhibit the characteristics of wetlands. Such PCC are not treated as wetlands under Sec. 404 of the Clean Water Act unless they are abandoned for a period of 5 years.) The Clinton Administration stated that PCC were no longer to be considered "waters of the US" regardless of how the land was used. EPA and the COE have been trying to "recapture" such PCC by ignoring the regulation and promulgating guidance that claims that when there is a "change in use," the PCC comes into regulation under the Clean Water Act. COE just lost a court decision on this matter, and the court explicitly rejected the agencies' contention.

**Recommendation:** If EPA intends to change the regulatory treatment of prior converted croplands, it should be required to follow the appropriate procedures in the Administrative Procedures Act and not use guidance to undermine a policy that is nearly two decades old.

**Agency:** EPA

**Issue:** Interpretation of Court decisions and enforcement of Clean Water Act for concentrated animal feeding operations (CAFOs) PAUL, YOU MAY WANT TO EXPLAIN IN LAY TERMS WHAT A CAFO IS, SUCH AS A TYPICAL DAIRY, HOG, OR POULTRY OPERATION OF AVERAGE SIZE

**Status:** Pending

**Discussion:** Several years ago, the 2<sup>nd</sup> Circuit Court invalidated an EPA rule in which the agency contended that all CAFOs propose to discharge pollutants and therefore had a "duty to apply" for an NPDES permit whether or not the CAFO actually discharged. The court clearly stated that Congress had given EPA only authority over actual discharges and the agency had no authority to compel entities to apply for a permit if they did not discharge or intend to discharge. EPA, however, has been working on regulations that may come out in 2011 and that are expected to require small- and medium-sized CAFOs to obtain



NPDES permits, as well as mandating use of more aggressive nutrient management plans. The rule is rumored to include a presumption that all CAFOs discharge – a policy determination that is clearly at odds with the ruling in the 2<sup>nd</sup> Circuit. Other ways in which the agency is seeking to increase regulation over CAFOs and increase costs to farmers and consumers are:

- Under a secret settlement agreement reached with environmental activists in current litigation over the 2008 CAFO rule, EPA will soon propose to collect information about farms and post that information on the internet.
- EPA entered into another settlement agreement to requirement permits for dust and feathers blown out of poultry house ventilation fans.
- EPA is proposing regulations to limit the use of manure nutrients and limit a farmer's ability to sell manure nutrients to crop farmers.

**Agency:** EPA

**Issue:** Guidance undermining two Supreme Court decisions (*SWANCC* and *Rapanos*) and usurping congressional language on the legislative term “navigable waters”

**Status:** A lengthy EPA guidance document is reportedly now under review at the Office of Management and Budget (OMB)

**Discussion:** In two important decisions, (*SWANCC* in 2001 and *Rapanos* in 2007) the US Supreme Court declared that there are limits to Federal jurisdiction under the Clean Water Act, citing Congress’s use of the term ‘navigable’ to limit Federal authority. With the failure of legislation to delete that term in the 111<sup>th</sup> Congress, EPA is now reportedly developing guidance that will undermine the Court’s decisions and assert sweeping Federal jurisdiction over intrastate waters in ways never intended by Congress. Expanding federal control over intrastate waters will substantially interfere with the ability of individual landowners to use their private property and will significantly impair job creation from private and public investments in development and infrastructure projects including housing, schools, hospitals, roads, highways, agriculture and energy projects. Should such guidance reflect the policy direction of failed legislation, it could well empower EPA to assert Clean Water Act jurisdiction over even dry land.

**Agency:** EPA

**Issue:** Regulation of non-point sources of pollution

**Status:** Ongoing

**Discussion:** Under the Clean Water Act, states have primary authority to regulate non-point source pollution (Section 319 of the law). EPA, however, is encroaching upon state prerogatives and is engaged in a

vigorous regulatory campaign to insert itself into non-point source pollution regulation. Specifically:

- The agency is trying to narrow the agricultural stormwater exemption – an exemption explicitly written into the law by Congress. In the Chesapeake Bay, EPA is seeking to do away with the exemption entirely.
- EPA has entered into a settlement agreement with environmental activists to adopt unrealistic and unattainable numeric nutrient criteria.
- EPA is advocating new total maximum daily load (TMDL) limits that would effectively limit CAFOs from expanding their operations.
- EPA is proposing to strengthen the water quality standards program. Key among EPA's proposals are measures to tighten rules over point and nonpoint sources and give environmental advocates greater access to challenge livestock operations and land use activities of farmers and ranchers.

**Agency:**

US Department of Labor

**Issue:**

Regulations for the temporary and season agricultural (H-2A) program

**Status:**

Final rule promulgated in 2010. Due to effective date, many H-2A employers will feel first impact when entering into contracts in 2011.

**Discussion:**

8 U.S.C. 1101(a)(15)(H)(ii)(a) authorizes a foreign guest worker program under which agricultural employers may, after meeting certain conditions, hire foreign workers for temporary or seasonal work. Revised regulations for this program, known commonly as the H-2A program, were promulgated in December, 2008; those reforms were eventually revoked and replaced by regulations promulgated by the Department of Labor in 2010. The 2008 regulations revised the wage methodology and streamlined the program; the 2010 revisions reverted to the previous wage structure but at the same time instituted new reforms that will make the program more costly and less attractive for farmers and ranchers. Although there are many problems with the new regulations, three items in particular are worth noting:

1. *Mandatory wage rate:* An employer utilizing the H-2A program must pay his workers the highest of (a) the state minimum wage; (b) the federal minimum wage; (c) the prevailing wage; or (d) the adverse effect wage rate (AEWR). In nearly all cases, this is the AEWR. The 2008 regulation modified the formula by which the AEWR was determined, bringing it much closer to the actual wages paid in the agricultural labor market. The 2010 final rule restored the earlier formula, which is not based on actual wages but is a formula based on a state-wide average of wages paid in differing

jobs within agriculture. The practical effect of this change was to drastically increase labor costs for employers who use the H-2A program and, consequently, to discourage employers from using the program.

2. *Worker eligibility:* One of the significant reforms of the 2008 rule was a requirement that state workforce agencies (SWAs), which receive Federal funds, be required to verify the work eligibility of individuals whom they refer to H-2A employers. Prior to that reform, SWAs would routinely refer prospective employees to H-2A employers not knowing whether the individuals themselves were eligible to work in the United States. Farmers complained that government agencies themselves were effectively compelling them to consider for employment individuals for whose eligibility the government itself could not attest. The '08 regulation remedied this ridiculous situation by simply requiring SWAs to verify work eligibility. The '10 regulation repealed this common sense reform, thus restoring a situation which had the effect of requiring farmers to consider for hire workers not eligible to work in the U.S. The following explanatory note is taken from DOL's own website (full cite is at <http://www.foreignlaborcert.doleta.gov/faqsanswers.cfm#h2a>):

*May I continue to rely on the SWA to verify the employment eligibility of the applicants it refers to my job opportunity?*

*Under the Immigration and Nationality Act (INA), the employer is responsible for verifying the employment eligibility of all of its hires. Department of Homeland Security (DHS) regulations do not require State agencies to verify the employment eligibility of job applicants they refer to employers but do permit employers to rely on employment verification voluntarily performed by a State employment agency under certain limited circumstances. Under the 2008 Final Rule the Department required the SWAs to perform I-9 verification on all applicants being referred to job openings for which H-2A workers were sought. Under the 2010 Final Rule, the SWAs will no longer be required to conduct I-9 employment eligibility verification of job applicants referred to job opportunities for which H-2A workers are sought. Employers should carefully examine the requirements under the INA and the DHS regulations to ascertain their obligations and ensure compliance with respect to employment eligibility verification.*

3. *50% rule:* A longstanding regulatory requirement under the H-2A program has been that farmers are required to recruit and hire eligible and qualified US workers before they receive certification (approval) to bring in foreign workers under H-2A visas. Customarily, a farmer would file an



application specifying the number of workers he or she needs for the work in question. The US DOL will ultimately reject or approve the application and certify for a certain number of H-2A workers. Through 50% of the contract period, a farmer is obliged to interview and hire eligible, qualified individuals (including those referred by an SWA) up to the number of workers certified on his H-2A application. For example, if a farmer were certified for 100 workers over a 6-month period, he would be required to interview and/or hire 100 workers during the first 3 months. For years, DOL had interpreted this rule to mean that once a farmer had interviewed or hired referrals up to the number certified on his H-2A application, the farmer had met his legal obligation. Under the 2010 Final Rule, DOL drastically changed this requirement.<sup>1</sup> (See the explanatory statements below taken from DOL's website at <http://www.foreignlaborcert.doleta.gov/faqsanswers.cfm#h2ajoboffers15>.) DOL now requires that a farmer during the first half of the contract period hire any and all eligible US workers as long as at least one H-2A worker is employed. In real terms, this means that as long as a farmer has *one* H-2A employee, he must hire an unlimited number of US workers *regardless of the amount of H-2A workers actually certified by DOL*. This interpretation is wholly unworkable. From a practical perspective, it is frequently the case that US referrals either will not show up at the time and date required or, if they do, they will often not return or quit employment after a short period. A farmer will thus always keep some H-2A employees on the job because he cannot afford to lose his crop and he knows that referrals from SWAs are, in most instances, highly unlikely to result in a reliable supply of workers. The practical effect of DOL's new interpretation has been to raise costs and uncertainties for farmers who want to use the H-2A program. From a public policy standpoint (coupled with the changes mentioned in #1 and #2 above), the effect has been to discourage the use of legal employees under the H-2A program and to make it easier for workers with fraudulent documents to gain employment in the U.S.

*Am I required to hire every U.S. worker who applies, or is referred to me by the SWA, during the first 50 percent of the contract period?*

*For as long as an H-2A worker is employed in a certified position during the first 50 percent of the contract period, the employer must provide employment to any able, willing, qualified and available U.S. worker who applies to the employer until 50 percent of the period of the work contract has elapsed, regardless of the number of H-2A workers covered by the employer's*

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<sup>1</sup> It should be noted that the 50% rule, like nearly all the regulations governing the H-2A program, is wholly a regulatory creation. There is no language in the statute mandating such a requirement.

*certification. The start of the work contract timeline is calculated from the first date of need stated on the Application for Temporary Employment Certification under which the foreign worker who is in the job was hired.*

*An employer may continue to employ its H-2A workers under the work contract so long as it complies with all requirements of the H-2A program with respect to the H-2A workers and workers in corresponding employment. The employer may also choose to displace its H-2A workers with the newly hired U.S. workers so long as it pays for the H-2A workers' return transportation and subsistence in accordance with 20 CFR 655.122(h)(2). In the event the employer decides to displace its H-2A employees as a result of hiring U.S. workers, the employer is not liable for the payment of the three-fourths guarantee to the displaced H-2A workers.*

**October 1, 2010**

***What are my options if the newly hired U.S. workers under the 50 percent rule become unavailable after I have displaced some or all of my H-2A workers?***

*If all of the H-2A workers have been displaced, and some or all of the U.S. workers hired as a result of the 50 percent rule become unavailable, i.e., abandon the position or are terminated for cause, during the first 50 percent of the work contract period, the employer is under no obligation, but may continue, to hire any able, willing, qualified and available U.S. workers. However, so long as the employer continues to employ at least one H-2A worker in a certified position during the first 50 percent of the contract period, the employer must continue to hire any able, willing, qualified and available U.S. worker who applies to the employer until 50 percent of the period of the work contract has elapsed, regardless of the number of U.S. workers hired under the 50 percent rule who become unavailable.*

*If some or all of the newly hired U.S. workers become unavailable after the first 50 percent of the work contract period, the employer may, but is not obligated to, hire additional able, willing, qualified and available U.S. workers and/or engage in additional recruitment of U.S. workers.*

*Note: An employer whose Application for Temporary Employment Certification is approved for*

*the full number of workers requested may not apply to the National Processing Center for a redetermination of its need based on the unavailability of U.S. workers. Pursuant to the Department's regulations at 20 CFR 655.166, this option is only available to employers whose certifications were initially denied or whose applications were partially certified.*

**October 1, 2010**

<b>Agency:</b>	EPA
<b>Issue:</b>	Lowering the national ambient air quality standards (NAAQS) for coarse particulate matter (PM <sub>10</sub> )
<b>Status:</b>	The agency is expected to recommend tighter standards in the near future
<b>Discussion:</b>	EPA is in the process of reviewing the NAAQS for PM <sub>10</sub> . Coarse particulate matter is much more prevalent in rural areas due to unpaved roads, working farm fields and blowing winds. With very little evidence of adverse health impacts from PM <sub>10</sub> (and virtually no evidence from rural areas), EPA is proceeding to revise its standards. While EPA has said that it is justified in retaining the current standard, all indications are that it will reduce the current allowable levels of PM <sub>10</sub> by half. Such a change will not have much impact in urban areas, but will cause significant economic concerns in rural areas that are already having difficulty in meeting the current standard. Reducing the standard will cause many rural areas to go into non-attainment, and bring more restrictions and controls on production. The effect will be to raise costs and reduce profitability for agriculture.
<b>Agencies:</b>	EPA and US Fish & Wildlife Service
<b>Issue:</b>	Over-regulation and duplication of efforts under Section 7 of the Endangered Species Act
<b>Status:</b>	Ongoing
<b>Discussion:</b>	Section 7 of the ESA requires federal agencies to consult with either Fish & Wildlife Service or National Marine Fisheries Service ("Services") regarding actions that could affect listed species. The Federal Insecticide Fungicide and Rodenticide Act (FIFRA) provides a procedure for EPA to register crop protection products, taking into account that product's effect on wildlife, including listed species. Any crop protection registration has considered impacts of the registered product on wildlife. Because of this procedure, EPA has traditionally not consulted with the Services on registrations. Recent lawsuits have established a requirement for EPA to consult with the Services on crop protection registrations, even though EPA has already performed analyses of impacts on listed species during the registration process, thus creating a duplicative process. Crop protection use is often enjoined or restricted until consultations are complete. To make matters worse, the analyses done by EPA to assess impacts on listed species are

different from the analyses done by the Services to assess impacts on listed species. The processes employed by the agencies are not only duplicative, but they do not agree on the methodology to be used to perform the same analyses. Losers in this inter-agency dispute are farmers and ranchers who are restricted in the use of crop protection materials until section 7 consultation is completed.

**Recommendation:** Legislation should be adopted to resolve this conflict and to eliminate the duplication of costly and time-consuming reviews of impacts of pesticides on species listed under the ESA.

**Agency:**

EPA

**Issue:**

Regulation of greenhouse gases (GHGs)

**Status:**

EPA regulatory authority commenced on January 2, 2011

**Discussion:**

EPA began regulating greenhouse gas emissions at stationary sources (including farms and ranches) on January 2, 2011. The Clean Air Act requires that any such sources that emit, or have the potential to emit, 100 or 250 tons of GHGs per year obtain both Title V operating permits and preconstruction permits before building or renovating any structures. (EPA, under its "tailoring" rule, has claimed it has the authority to phase in these limits, starting at levels as high as 100,000 tpy – a level a thousand times above that explicitly set by Congress in the law. EPA's claim of such authority is being challenged in court.) EPA estimates that when fully implemented, there will be over 37,000 farms and ranches subject to Title V operating permits alone, at an average cost of over \$23,200 per permit. In addition, EPA has stated that methane emissions from livestock are not classified as fugitive emissions, and thus would be required to obtain such permits. If so, this would affect over 90 percent of the livestock production in the United States.

**Recommendation:** Congress should act to halt EPA's regulatory over-reach.

**Agency:**

EPA

**Issue:**

Regulation of ammonia emissions

**Status:**

A proposed rule is expected in July, 2011

**Discussion:**

In the course of revising national ambient air quality standards for sulfur dioxide (Sox) and nitrogen oxides (NOx), EPA is also seeking to regulate ammonia emissions. Livestock emit ammonia and would thus be regulated under these standards. The Clean Air Act only regulates emissions of "regulated pollutants," which does not include ammonia. EPA is seeking to use a controversial and unproven method for the NOx and Sox standards that would incorporate the regulation of "reduced nitrogen," which includes ammonia. The methodology has not been endorsed by the EPA Clean Air Scientific Advisory Committee which is reviewing these standards.



**Agency:** EPA  
**Issue:** Spill Prevention, Control and Countermeasures (SPCC) rule  
**Status:** Final regulation issued 2010  
**Discussion:** In 2009, EPA finalized regulations that will require any farm with above-ground oil storage capacity of greater than 1,320 gallons to have secondary containment measures in place; for farms with more than 10,000 gallons of such capacity, such plans must be certified by a professional engineer. This regulation is over thirty years old and was originally intended for the petroleum industry, although EPA contends that agriculture has never been exempt. There is no identifiable history of spills from agricultural tanks, and the agriculture community has repeatedly urged EPA not to extend this regulation to farms and ranches or, in the alternative, to do so in a way that minimizes burdensome costs (e.g., for farms with storage capacity of 20,000 gallons or more) and to provide a lengthy phase-in period (e.g., 4-5 years) to educate producers about their responsibilities. Those requests have not been granted and farms are now faced with spending literally thousands of dollars to undertake spill containment measures that will result in little to any environmental benefit.

**Agency:** EPA  
**Issue:** EPA settled a lawsuit with environmental groups to establish a regional Total Maximum Daily Load (TMDL) for the Chesapeake Bay. The administrator of the EPA is on record indicating her desire to use the Bay TMDL as a model for the entire nation.  
**Status:** Ongoing  
**Discussion:** The CWA requires that states identify impaired waters and establish Total Maximum Daily Loads (TMDLs). EPA must approve or disapprove all such TMDLs and, in the event of disapproval, directly establishes TMDLs. EPA appears to be exceeding its congressional mandate and authority in the law by pushing states to implement TMDLs as if they are effective caps on economic activity. Congress vested TMDL implementation with the states in order to balance the attainment of environmental goals with other important economic and social considerations. The Chesapeake Bay TMDL is unprecedented and contains far reaching consequences for the entire U.S. EPA's approach effectively ignores limits Congress prescribed in the CWA and will have the effect of erecting barriers to economic growth, as well as affecting a secure food supply. The implications are so far reaching that the regulations may well allow EPA to dictate virtually all economic activity including the ability to build roads, homes and grow food.



# American Forest & Paper Association

Office of the President

January 10, 2011

The Honorable Darrell Issa, Chairman  
Committee on Oversight and Government Reform  
U.S. House of Representatives  
Washington, DC 20515-6143

Dear Chairman Issa,

The American Forest & Paper Association (AF&PA) appreciates the opportunity to comment on federal regulations that impact the forest products industry in ways that inhibit economic growth and jobs.

As you are aware, AF&PA is the national trade association of the forest products industry, representing pulp, paper, packaging and wood products manufacturers, and forest landowners. The industry is among the top 10 manufacturing sector employers in 48 states. The forest products industry is also a leader in sustainability and a foundation for green jobs. Our industry employs about 900,000 workers in family-wage jobs, leads the way on recycling and renewable energy, and sustainably uses renewable resources.

Unfortunately, these important contributions are challenged by a wave of regulatory proposals that cumulatively could cause crippling economic impacts just when our industry and the national economy are struggling to recover from the recession.

We look forward to working with the Committee, the Administration, and other stakeholders to address the regulatory challenges in ways that encourage a sustainable future for the forest products industry and the nation.

Responding to your request for assistance, AF&PA has identified a number of federal regulations that could negatively affect economic recovery and jobs in our industry and others.

## CLEAN AIR ACT REGULATIONS

EPA is working on more than twenty air rules that could collectively impose \$17 billion in new capital expenditures on the forest products industry alone. The most significant rules on EPA's 2011 workplan are:

- **Boiler MACT:** EPA is in the process of setting emission limits for several hazardous air pollutants (HAPs) from industrial boilers under a court ordered deadline. EPA is also setting HAP limits for solid waste incinerators and boilers at smaller sites. The June, 2010 proposed rules would impose over \$6 billion in capital costs on the forest

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products industry and over \$20 billion on a wide array of manufacturers. Those costs put tens of thousands of jobs at risk due to mill closures. EPA could use its legal discretion under the Clean Air Act to craft a final rule that significantly reduces costs by targeting emission reductions that produce real benefits.

- Cluster MACT Reopening: EPA finalized Maximum Achievable Control Technology (MACT) rules for paper mills in 1998 and 2001 but has been petitioned by environmental groups (ENGOS) to make them more stringent. The Clean Air Act created MACT as a one-time program, and EPA has met its obligation for paper mills. If EPA were to re-open the pulp and paper MACT as suggested by ENGOS it could cost over \$4 billion in new capital as more equipment must put on controls. NOTE: Other sector MACT rules could be re-opened in 2011 that raise similar policy issues.
- Pulp and Paper Residual Risk Standards: Eight years after a Maximum Achievable Control Technology (MACT) rule for the pulp and paper industry is promulgated, EPA must decide whether the health risks that remain ("residual risks") from hazardous air pollutants (HAPs) are significant enough to warrant further regulation. EPA is under a court ordered schedule to propose its residual risk determination for pulp and paper mills by June 15, 2011. Based on precedents in recent proposals, we are concerned that EPA will set unwarranted, stringent limits for several HAPs from various process equipment at pulp and paper mills. EPA should find further regulation is unnecessary since the remaining risks are very small. NOTE: EPA will be proposing or finalizing several other residual risk rules in 2011 for other industry sectors that raise similar concerns.
- PM NAAQS: In the fall of 2011, the five year review cycle for the fine particulates National Air Ambient Quality Standards (NAAQS) comes due and if tightened could impose significant new costs for particulate matter (PM), nitrogen oxides (NOx), and sulfur dioxide (SO<sub>2</sub>). Once EPA issues a new PM fine standard, states will identify non-attainment areas and then develop implementation plans to reduce emissions of PM, NOx and SO<sub>2</sub>. Costs to the forest products industry alone could approach \$5 billion in new capital expenditures. The current standard is already very stringent. Further tightening of an already stringent standard is unwarranted given the scientific uncertainty.
- Ozone NAAQS: EPA is considering significantly tightening the already tougher 2008 ozone standard two years ahead of schedule. Once EPA issues a new ozone standard, states will identify non-attainment areas and then develop implementation plans to reduce emissions of nitrogen oxides (NOx) and volatile organic compounds (VOCs) – the precursors to ozone. Cost to the forest products industry could approach \$3 billion in new capital expenditures and lead to additional national rules that control cross-boundary transport of air emissions (so called "Transport Rule II"). According to an API/NAM study, the costs could approach \$1 trillion over 10 years to meet a 60 ppb ozone standard.