

## Section 4 – Verification of GIPSA’s Captive Supply Statistics

GIPSA’s captive supply statistics for cattle are computed from summary information reported by packers that purchase at least \$500,000 of livestock and slaughter more than 100,000 steers and heifers during the reporting year. Packers meeting these thresholds are required to file annual reports with GIPSA with summary procurement information. In their annual reports, packers are required to identify the total number of head slaughtered and how the cattle were procured. Since 1988, GIPSA has required packers to report the number of slaughtered cattle that were “packer fed” or purchased through “contracts,” “marketing agreements,” or “other” arrangements in which cattle were committed to the packer more than two weeks in advance of slaughter. From this summary information, GIPSA computes the percentage of cattle that were “packer fed” or procured using “forward contracts or marketing agreements” as a percentage of total slaughter by the largest 4 and largest 15 packers that purchased steers and heifers. These captive supply statistics are published annually in GIPSA’s Packers and Stockyards Statistical Report and are commonly called “GIPSA’s captive supply statistics.”

GIPSA’s captive supply statistics are only as accurate as the information provided by packers in their annual reports. To verify the accuracy of GIPSA’s captive supply statistics and to ensure that the packers were categorizing the manner in which they procured cattle consistently with GIPSA’s captive supply definitions, GIPSA 1) contacted the largest 15 packers that purchased steers and heifers in 1999 to determine how they interpreted GIPSA’s procurement category definitions when they completed the GIPSA packer annual report form and 2) compared the summary information provided on annual reports submitted by the largest 4 packers that purchased steers and heifers in 1999 with the underlying transactions records.

### Packer’s Stated Understanding of Procurement Categories

As GIPSA attempted to verify the numbers in GIPSA’s captive supply statistics, it became clear that the vagueness of some of the captive supply category definitions in the report led packers to misunderstand and misapply some of the reporting criteria. As a consequence, GIPSA contacted the largest 15 packers that purchased steers and heifers in 1999 to determine how they interpreted GIPSA’s procurement category definitions when they completed the GIPSA packer annual report form.

The marketing agreement category in GIPSA’s annual report form is defined as an “agreement to purchase livestock at a future date with price to be determined at or after the time of slaughter.” Packers generally interpret marketing agreements to be formula sales. A formula sale generally sets a final price for cattle based on the cattle’s carcass quality and yield grades, which are typically assigned by a USDA inspector after slaughter. Because packers understood the marketing agreement category to be formula pricing, some packers did not report cattle procured under marketing agreements when the marketing agreement did not price cattle using a formula. Further, some packers reported packer fed cattle in the marketing agreement category because they were priced under a formula.

The “packer fed” category in GIPSA’s annual report form is defined as “all company owned cattle fed for slaughter whether custom fed or fed in a company owned or operated lot and any partnership, joint venture, or other feeding arrangement.” In verifying GIPSA’s captive supply numbers, GIPSA found that packers interpreted company owned cattle in different ways. One packer reported cattle sold to other packers as packer fed cattle, stating “GIPSA’s questionnaire asks packers for ‘livestock fed,’ not ‘livestock fed for slaughter by reporting packer.’” Packers variously defined packer fed as “packer-owned;” “packer-owned or third party cattle fed in company feedlot;” “packer-owned and custom fed;” or “packer-owned and controlled,” where “controlled” meant full packer control over the feeding regimen and marketing date.

Packers interpreted and reported joint venture cattle, a subcategory of “packer fed” cattle, in various ways, as well. Three packers said jointly owned cattle belonged in the packer fed category. One said they did not belong in the packer fed category. Four said it would depend on the particulars of the joint ownership agreement. For example, one of the four packers stated that if its ownership share of the cattle was more than 50 percent, the cattle would be reported to GIPSA as packer fed. If its ownership share was less than 50 percent, the cattle would be a joint venture and the packer would seek guidance from GIPSA for proper reporting. The remaining eight said one of two things: the question was not relevant because they had no jointly owned cattle, or they had no jointly owned or packer owned cattle and remained silent as to the appropriate reporting category. Three packers said that they reported all jointly owned cattle as packer fed. One said it reported the cattle in which it had an interest but the particulars of the agreement determined the procurement category to which the packer assigned the cattle. The remaining 11 packers either stated that they owned no joint venture cattle or did not mention joint venture cattle.

The contract category in GIPSA’s annual report form is defined as “fixed price or basis contract.” Packers interpreted contracts to be basis contracts, which generally derive prices from the Chicago Mercantile Exchange (CME). Packers’ understanding of the GIPSA’s contract category did not differ markedly from GIPSA’s annual report form definition.

#### Verification of GIPSA Annual Report Submissions through Transactions Records

As noted, GIPSA captive supply statistics are only as reliable as the packer information from which they are computed. GIPSA compared the summary information provided in 1999 annual reports submitted by the largest 4 packers that purchase steers and heifers with their 1999 cattle transactions records (the packers will be referred to, arbitrarily, as Packer One through Packer Four). In doing so, GIPSA also used the packers’ descriptions of those transactions records. If the packer described a class of cattle transactions as forward or basis contract transactions, the transactions were included in the contract category. If the packer described a class of cattle transactions as marketing agreement transactions, the transactions were included in the marketing agreement category. If the packer reported an ownership interest in the cattle or reported procurement from affiliate or subsidiary feedlots through a marketing agreement or forward contract, the cattle were included as packer fed. Packers report either on a fiscal or calendar year basis on their annual reports. Three packers reported on a fiscal year and fiscal month basis. One packer reported on a fiscal year basis and, depending on the plant, on either a

fiscal or calendar month basis. The packers did not use identical fiscal years and months. Tabulations and graphs of these comparisons are presented later.

GIPSA replicated the 1999 annual report submission of Packer One from the transaction records for 1999 with less than a one percent discrepancy given the descriptions of the records. When GIPSA informed Packer One of the small discrepancy, Packer One stated that the transactions data given to GIPSA were not the data used to generate the submission. Packer One had modified the data after submitting its annual report to GIPSA.

GIPSA could not replicate Packer Two's annual report submissions for 1999 from the transaction records for 1999. GIPSA contacted Packer Two for further clarification of the transactions records and their descriptions. GIPSA learned that Packer Two pro-rated some joint venture cattle to packer fed and marketing agreement categories according to the packer's ownership share. In addition, Packer Two reported cattle that were fed at affiliate feedlots as cattle procured through marketing agreements. GIPSA then attempted to verify Packer Two's submissions based on transaction records, the record descriptions, and the Packer Two's clarification. The submissions could be verified to within a one percent discrepancy. As with Packer One, Packer Two modified the data after submitting its annual report to GIPSA.

GIPSA replicated Packer Three's annual report submissions for 1999 with less than a one percent discrepancy given the packer's description of how the submissions were computed. However, Packer Three's descriptions of transactions were often at odds with its description of the method of computation. For example, Packer Three described some transactions as marketing agreements but did not include them as marketing agreement transactions in its annual report submission. Packer Three asserted that it did not report the cattle as procured through a marketing agreement because the marketing agreements in question did not fit the definition of marketing agreement in GIPSA's annual report form. For other transactions, Packer Three had an ownership interest in the cattle while they were fed but reported the cattle in the marketing agreement category and not as packer fed. Packer Three offered two explanations for this grouping: first, the cattle fit both marketing agreement and packer fed categories, and Packer Three chose to report them in the marketing agreement category; second, Packer Three believed its ownership interest did not make the cattle packer-owned or part of a joint venture, but the agreement did establish that the cattle were priced under a formula so they were marketing agreement cattle.

GIPSA could not replicate Packer Four's annual report submission for 1999. GIPSA contacted Packer Four for further clarification of the transactions records and their descriptions. GIPSA learned that Packer Four had made substantial clerical errors in compiling the submission. In addition, some joint venture cattle were double counted in both packer fed and marketing agreement categories. Finally, Packer Four did not assign some cattle to the marketing agreement category because Packer Four stated that, prior to preparing its 1999 report, a GIPSA field employee instructed it to include only cattle procured under written marketing agreements and the agreements in question were oral agreements. Packer Four's total number of reported marketing agreement cattle was smaller than if the packer had also reported the cattle procured through oral marketing agreements.

As originally submitted, the largest four packers reported to GIPSA captive supply procurement totaling 6,030,106 head, equivalent to 25.2 percent of their combined steer and heifer slaughter. GIPSA's revised estimates for the largest four packers identify 7,710,143 head purchased through captive supply arrangements, equivalent to 32.3 percent of their slaughter. In total, GIPSA's revised captive supply estimate is 1,680,037 head greater than that originally reported in the largest four packers' annual report submissions. GIPSA also used the packers' records to estimate captive supply reporting on a calendar year basis for 1999, as opposed to the combined calendar and fiscal reporting submitted by the packers. GIPSA's calendar year estimate for captive supply was 7,860,345 head of cattle and about 32.4 percent of the packers' combined steer and heifer slaughter.

In the course of verifying the largest four packers' reporting of captive supply and of speaking with the largest 15 packers about their understanding of GIPSA's captive supply categories, GIPSA discovered no evidence suggesting that the packers' errors in reporting captive supply were other than good-faith errors arising from the vagueness of GIPSA category definitions. In section 5 of this report, GIPSA's actions to ensure that such errors do not arise again are discussed.

**Table 12. Largest 4 Packers' 1999 Captive Supply<sup>1</sup> Reporting to GIPSA, GIPSA's Replication of Packers' Reporting Developed From Packers' Transactions Records, and GIPSA's Estimate of What Packers Should Have Reported**

	Submitted by Packers in Annual Reports <sup>2</sup>	Replicated from Packers' Transactions Records <sup>2</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>2</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records	Calculated by GIPSA from Data Submitted in Packers' Annual Reports <sup>2</sup>	Calculated by GIPSA from Replication using Packers' Transactions Records <sup>2</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>2</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records
	Head				Percentage of Largest 4 Packers' Steer and Heifer Slaughter			
January	528,008	390,067	483,516	620,476	28.0	24.8	30.7	31.6
February	540,238	507,450	651,790	576,475	28.2	24.9	32.0	31.7
March	451,585	397,771	539,815	541,990	22.0	20.3	27.6	26.7
April	417,256	476,390	594,071	671,892	23.2	26.2	32.7	33.7
May	498,859	516,920	663,940	594,157	23.8	22.8	29.3	29.1
June	498,923	516,320	667,183	683,884	23.4	24.1	31.2	31.3
July	539,462	528,721	668,747	721,697	28.3	27.0	34.1	34.0
August	581,773	591,085	782,511	770,570	27.8	27.0	35.7	35.9
September	550,264	545,620	724,051	694,533	25.3	25.5	33.9	33.0
October	442,573	442,430	590,884	607,791	22.4	22.3	29.8	29.8
November	429,499	432,149	604,611	620,306	22.3	21.9	30.6	32.6
December	551,668	553,006	735,292	752,840	28.0	30.1	40.0	40.1
Total <sup>3</sup>	6,030,106	5,901,662	7,710,143	7,860,345	25.2	24.7	32.3	32.4

<sup>1</sup> Packer fed, Contract, Marketing Agreement and Other cattle.

<sup>2</sup> Based on reporting packers' fiscal months.

<sup>3</sup> Months may not sum to Total because some transactions had missing sales dates but known sales year.

**Table 13. Largest 4 Packers' 1999 Reporting of Forward Contract and Marketing Agreement Procurement to GIPSA, GIPSA's Replication of Packers' Reporting Developed From Packers' Transactions Records, and GIPSA's Estimate of What Packers Should Have Reported**

	Forward Contract				Marketing Agreement			
	Submitted by Packers <sup>1</sup>	Replicated from Packers' Transactions Records <sup>1</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>1</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records	Submitted by Packers <sup>1</sup>	Replicated from Packers' Transactions Records <sup>1</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>1</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records
January	89,147	36,839	36,839	50,417	349,893	298,171	310,245	391,753
February	72,033	69,288	69,288	61,900	368,764	369,097	395,566	360,048
March	72,997	47,228	47,228	46,172	295,555	293,536	362,918	363,150
April	96,663	148,973	148,973	184,470	258,114	268,560	335,747	372,533
May	98,773	102,206	102,206	79,950	336,520	337,806	433,283	395,990
June	86,163	103,742	103,742	94,049	337,002	336,092	406,733	420,107
July	42,007	28,081	28,081	25,669	409,603	412,462	436,178	464,690
August	43,171	47,016	47,016	54,275	441,421	439,909	472,152	475,140
September	56,417	40,753	40,753	29,703	422,651	425,272	466,086	449,535
October	43,525	41,250	41,250	47,494	335,683	339,947	401,119	408,748
November	55,163	40,732	40,732	44,140	314,991	324,677	416,564	432,514
December	91,432	74,558	74,558	72,433	407,588	407,417	479,402	481,974
Total <sup>2</sup>	847,489	780,664	780,664	790,672	4,277,783	4,254,906	4,917,051	5,280,367

<sup>1</sup> Based on reporting packers' fiscal months.

<sup>2</sup> Months may not sum to Total because some transactions had missing sales dates but known sales year.

**Table 14. Largest 4 Packers' 1999 Reporting of Packer Fed and "Other" Forward Procurement Commitments<sup>1</sup> to GIPSA, GIPSA's Replication of Packers' Reporting Developed From Packers' Transactions Records, and GIPSA's Estimate of What Packers Should Have Reported**

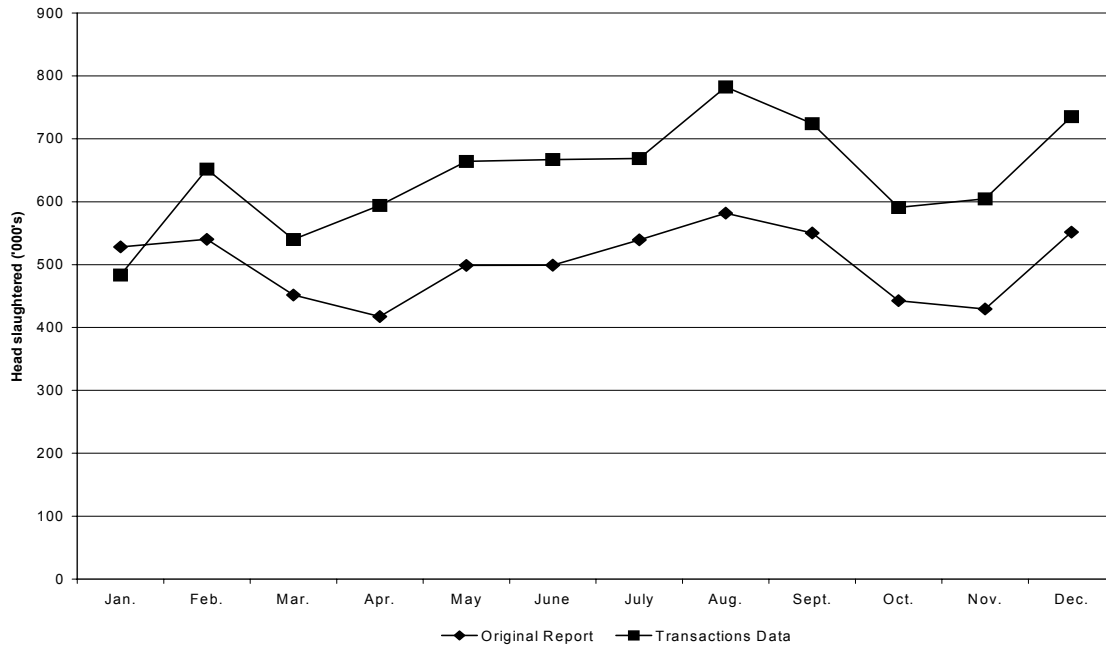
	Packer Fed				"Other" <sup>1</sup>			
	Submitted by Packers <sup>2</sup>	Replicated from Packers' Transactions Records <sup>2</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>2</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records	Submitted by Packers <sup>2</sup>	Replicated from Packers' Transactions Records <sup>2</sup>	GIPSA's Estimate from Packers' Transactions Records <sup>2</sup>	GIPSA's Calendar Month Estimate from Packers' Transactions Records
January	86,928	53,560	136,178	178,052	2,040	1,498	254	254
February	95,944	66,526	184,712	152,303	3,498	2,540	2,224	2,224
March	80,879	55,213	125,058	128,057	2,155	1,795	4,611	4,611
April	61,046	57,416	109,146	114,684	1,434	1,441	205	205
May	62,959	74,740	127,755	117,521	608	2,169	696	696
June	73,929	74,246	156,228	169,248	1,829	2,241	480	480
July	82,786	84,564	203,318	229,929	5,066	3,615	1,170	1,409
August	91,994	102,280	262,076	240,127	5,187	1,881	1,267	1,028
September	66,936	77,549	215,679	213,064	4,260	2,046	1,533	2,231
October	60,043	57,931	146,682	150,358	3,322	3,303	1,833	1,191
November	57,207	64,847	145,782	142,175	2,138	1,893	1,533	1,477
December	50,205	66,293	180,336	196,734	2,443	4,738	996	1,699
Total <sup>3</sup>	870,855	836,736	1,995,626	2,034,928	33,980	29,356	16,802	17,505

<sup>1</sup> Other procurement over two weeks in advance of slaughter and not reported as forward contract, marketing agreement or packer fed.

<sup>2</sup> Based on reporting packers' fiscal months.

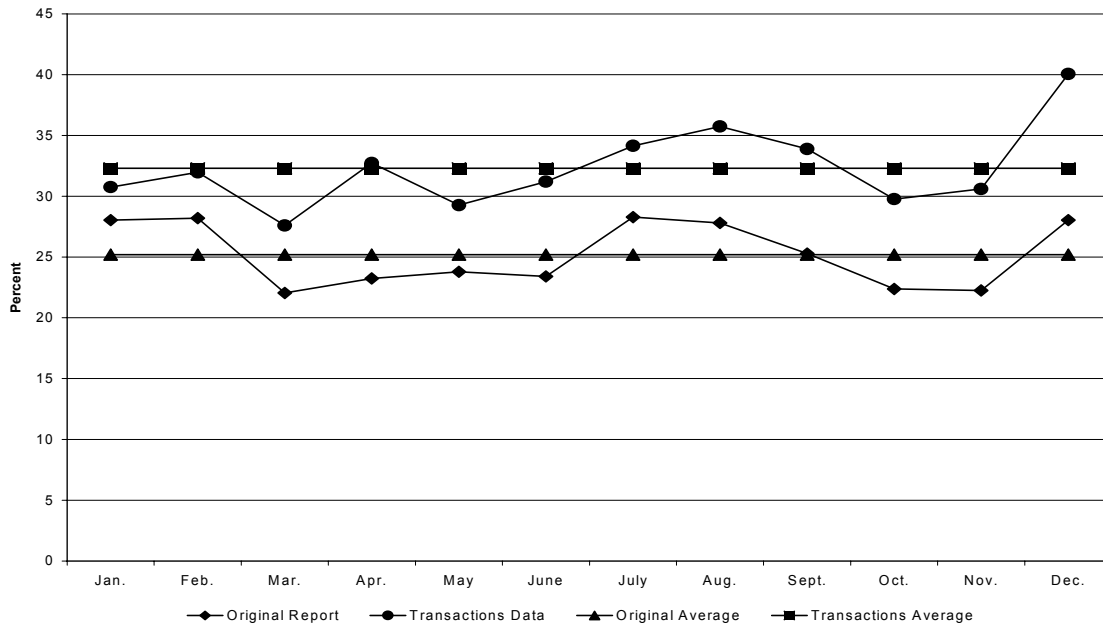
<sup>3</sup> Months will not sum to Total because some transactions had missing sales dates but known sales year.

**Graph 7. Comparison of GIPSA's Originally Reported Captive Supply and GIPSA's Estimate of Captive Supply from Transactions Data, 1999**



Source: Packer Annual Reports and GIPSA estimates from packer Transactions data.

**Graph 8. Comparison of GIPSA's Originally Reported Captive Supply and GIPSA's Estimate of Captive Supply from Transactions Data as a Percentage of Total Slaughter**



Source: Packer Annual Reports and GIPSA estimates from packer Transactions data.