

**TRANSACTIONS DATA COLLECTION PLANS – REVIEWER COMMENTS FOR RTI**

*Note: We appreciate the comments on the transactions data collection package. Based on our changes in response to these comments, GIPSA's comments, and the pretest findings, we made substantial improvements to the data collection forms. Some of the comments will be more fully addressed when we conduct the analysis.*

**Reviewer E1**

**This reviewer was charged with the task of considering data collection plans (e.g., is the appropriate data being collected to conduct the planned analyses? Are sampling plans adequate to obtain the data?). Reviewed where the original call for proposals and the draft work plan prepared by RTI. Those sections that were noted as likely to be particularly relevant (section B and Appendix I) were carefully reviewed and sections D, E, and F were reviewed in somewhat less detail.**

**Overall the data collection plan seems reasonable and well suited to the proposed analysis. Concerns / questions are noted. I apologize in advance if they were addressed within a portion of the plan that I did not as carefully review. Particularly appreciated are:**

- **Planned census of top firms.**
- **Cross check of survey responses with actual transaction data to verify (or allow adjustment for) response bias.**
- **Careful consideration of contract production in the hog sector.**
- **Discussion of how different marketing arrangements may affect the price adjustment process.**
- **Novel empirical tests (e.g., whether firms behave as profit maximizers or cost minimizers)**

**MAJOR CONCERNS / QUESTIONS**

**1. A fifty percent response rate for food wholesalers, retailers, etc. seems very high given the extent of information you are looking for, even given your well-articulated plan to obtain a good response rate. It is indicated 50% would be sufficient for your analysis. However, what if the rate is lower? Do you have a contingency plan for obtaining more data? What analyses will need to change? How? [page 11, section B]**

Response: We agree that the response rate is optimistic given the level of burden associated with the request. Because the data request is voluntary, we are limited in the methods we can use to encourage response. If the response rate for downstream market participants is lower than anticipated, we will use the data we do obtain to the extent we can, but we will also be collecting data through the industry surveys (which are substantially less burdensome and thus we expect a higher response rate). Thus, we will obtain data through the survey data collection that will be used in the analysis for the downstream participants.

**2. Recognizing that it is no doubt already onerous for the surveyed firms, the limit of data collected to a period of 2.5 years is of concern. [This is also true elsewhere in the proposal for all participants in the marketing channel.] The concern is from several angles. First, how will you adjust for point in livestock cycles, particularly beef? Second, the period under consideration seems relatively unique (e.g., the Canadian and U.S. BSE cases and resulting market effects for beef and**

**presumably substitute products and short and longer term production and slaughter; the small cattle herd; new popularity of low-carbohydrate diets). Finally, will there be “intention” data collected, either quantitative or qualitative (i.e., what changes are planned)? [page 11, section B and elsewhere]**

Response: The issues you raise with regards to the time period are important. We are limited in the time period for the request based on the date on which GIPSA sent a letter to packers and processors requesting that they retain data for the study. By statute, GIPSA can generally only request that firms retain data for 2 years. The data retention letter was sent in October 2004 requesting that firms retain all data beginning in October 2002. Thus, depending on when the transactions data requests go into the field, we will obtain approximately 2.5 years worth of data. In our discussion of the results, we will note the potential effects of current events in the industry. We will also adjust for exogenous factors affecting market demand and raw material supplies through estimation of demand and supply functions. We will make every attempt to interpret the results in the context of the livestock cycle. We might also be able to do some simulations in the equilibrium displacement models, but we will have to make assumptions about how the results would extend to out of sample periods.

Finally, please note that we will collect “intention” data in the industry survey using questions that ask for expectations about methods used 3 years in the future. We ask for expectations for items such as procurement methods, sales methods, and pricing methods.

**3. How will the characteristics of transactions and product be carried through the marketing channel? For example, are you proposing that you will be able to identify the effect of marketing arrangement between producer and packer (or even producers in different places in the production process for beef) on quality of the processed product? If so, how do you propose to track lots, etc. or will you just arrive at an index by, e.g., weighting quality (and other characteristics) by percentage of throughput covered by each marketing arrangement? This seems like a major objective of the study (i.e., to identify how marketing arrangement(s) effect product, cost, etc.) but it is not clear how it will be accomplished. What if alternative marketing arrangements are used (e.g., spot market for slaughter-weight animal but contractual relationship between packer and wholesale market)?**

Response: In the transactions data requests, we are requesting information on both purchases and sales of products. Through pretesting of the data collection efforts, we determined that firms do not maintain data in such a way that associates each lot of output with each lot of input. Thus, we cannot directly compare attributes of a particular lot of output with the type of marketing arrangement used on the input side. One part of the analysis will compare characteristics of the input (or output) directly with the type of procurement method for the input (or sales method for the output). Thus, this analysis can be accomplished on a lot-by-lot basis. Another part of the analysis will link characteristics of the output with percentage of throughput through various types of procurement methods on a weekly basis. Thus, the data for analyzing effect of procurement methods on attributes of the output will not match up on a lot-by-lot basis, but it will instead match up on a week-by-week basis.

**4. There needs to be considerable caution in analysis and interpretation thereof with respect to the effect of marketing arrangement employed. If you miss something important you may be attributing value to marketing arrangement when in fact there are one or other factors that affect**

**both. As such, attributing direction of causality will be particularly troublesome (e.g., are particular marketing arrangements resulting in particular outcomes or are firms with particular outcomes more inclined to use particular marketing arrangements for whatever reason)?**

Response: We agree that determining the correct direction of causality and giving consideration to other factors affecting use of marketing arrangements is important. In the analysis, we will consider different model specifications (both reduced form and structural models) in an attempt to see how sensitive our results and conclusions are. Furthermore, one reason for asking the questions we are asking in the industry interviews and surveys is to have as much information as possible in order to understand the underlying marketing processes so that meaningful results can be achieved. Transactions data are snapshots in time and likely will not reveal long-term incentives associated with alternative marketing arrangements. However, transactions data will allow us to answer questions such as the cost and quality tradeoffs associated with use of alternative marketing arrangements.

#### MINOR CONCERNS / QUESTIONS

**1. It is indicated that state-inspected establishments will be excluded from the “respondent universe”. Will they be considered at all? Do you have any evidence to support the idea that use of alternative marketing arrangements by these establishments are likely to be limited? It might be of particular interest to consider such if even some preliminary conclusions can be drawn simply because of the interest in value-added activities for existing production enterprises as supported, e.g., by the USDA Value-Added Grant Program. These are often awarded to smaller enterprises [page 9, section B]**

Response: We recognize that use of alternative marketing arrangements likely differs for state-inspected establishments. However, they are excluded because no state-inspected establishments are large enough to be in the sample (largest 60 beef packing establishments, 60 pork packing establishments, and 30 lamb packing establishments). If we were to consider requesting data from the state-inspected plants, it is very unlikely they would have data in an electronic format that could be used for the analyses. As shown in revised Table B-1 of the supporting statement, the meat packing establishments included in the sample account for 96 percent or more of total industry volume and will provide adequate representation of the variety of marketing arrangements used in the industry.

Regarding the USDA Value-Added Producer Grant Program, these grants are awarded to independent producers, eligible agricultural producer groups, farmer or rancher cooperatives or majority-controlled producer-based business ventures; they are not awarded to packers or processors (<http://www.rurdev.usda.gov/rbs/coops/vadg.htm>). Thus, we are unsure how the VAPG program is related to the need to include state-inspected plants in the sampling frame, since the program is targeted to producers, not packers.

**2. It is indicated that firms without reported revenue or employees will be excluded because you anticipate most of them are not currently operating, and that collection of transactions information will be limited to the largest firms because they are more likely to use a variety of alternative marketing arrangements. For both, why not verify your hypothesis before limiting the data collection? For the latter, it seems like you will be missing important input (i.e., if smaller firms are limited in the number and type of marketing alternatives they do or can use, this and the reasons**

**behind it are important). Also, you might miss some important marketing arrangement / firm size interactions. [page 10, section B]**

Response: As originally proposed, our sample design collects transactions data from the largest establishments (for meat packers and processors) and firms (for downstream market participants) in the livestock and meat industries. We are focusing our data collection efforts on the largest establishments and firms since they account for the majority of transactions and since the largest establishments and firms are more likely to have data in an electronic format. We will collect information on the use of procurement and sales methods and preferences for alternative methods among all sizes of establishments in the industry surveys.

Regarding excluding firms without reported revenue or employees from the respondent universe (i.e., the sampling frame from which the sample is drawn), our experience using the Dun & Bradstreet database suggests that most such business units are not currently operating, thus is it more efficient to purge the sampling frame of inactive business units prior to drawing the sample.

**3. Transaction data that may be important but is not noted is time and day of the week, although I suspect the latter will simply be identified by date (i.e., it can be important to bidding behavior but I suspect you know and have accounted for that). Are you going to consider any quality characteristics for pork (e.g., pse)? [page 12, section B]**

Response: As you note, we can determine day of week by the date of the transactions. We do not plan to request time of transaction since we do not plan to incorporate this level of detail in our analysis. Regarding other quality characteristics for pork, we have modified the instructions to request other quality measures: number of off-quality hogs in the lot (e.g., PSE), average lean percentage for the lot, average back fat measurement for the lot, average loin eye depth for the lot, and average fat free lean index (FFLI) for the lot.

**4. Price bid / profitability / etc. will be a function not only of plant volume but of relative volume (i.e., capacity utilization) and perhaps the ease with which a plant can increase throughput. I suspect that marginal cost of doing so would increase as capacity utilization exceeded regular operation volume.**

Response: We agree that capacity utilization rates have an important effect on the use of alternative marketing arrangements. In the separate survey data collection effort, we are asking for total plant capacity. Therefore, we will be able to calculate weekly capacity utilization rates for each of the plants that respond to the survey and the transactions data collection request. In designing the sampling plan for the transactions data collection and the industry surveys, we included a census of the largest plants (for the industry surveys, we also draw a random sample for the remaining plants). Thus, we will be able to match responses from the data collection efforts. In addition, during our interactions with firms during the transactions data collection process, we will ask them for plant capacity. Ease of changing capacity utilization is not explicitly included in the data collection efforts because it would be difficult to determine quantitatively.

**5. Confidentiality is of obvious importance, particularly given your dependence on information obtained from surveys. Will any of this information be subject to the Freedom of Information Act?**

Response: It is our understanding that under CIPSEA, information is not subject to the Freedom of Information Act, but GIPSA would be in a better position to address this comment.

**6. Where is the transaction data coming from? Is it a result of the Mandatory Price Reporting Act?**

Response: Companies maintain transactions data as a part of normal business operations. These records are part of the sales and purchase accounting systems that track payments received and payments made. The information is then fed into an accounting system that tracks operating results and generates income and expense statements. They are not the result of MPR. Companies do maintain separate systems to report data for MPR, thus we examined the format of these data requests to determine whether we could format our data requests in a similar way to help ease the burden. However, we found that the data fields requested for MPR do not capture many of the variables needed for the analysis and also define some of the key variables differently.

**7. Couple of general questions, perhaps just for thought. Part C. What are the “other relevant factors that may affect prices” from first bullet point? Seems like at this stage, these should be identified so you can collect that data. [In fact, I suggest you do a search of the plan for phrases such as “other factors” and make sure you have at this point identified what they are / might be.] From the third bullet point, as previously noted, how will two years of data allow for consideration of the effect of livestock cycles? Part E. See item 4. under MAJOR CONCERNS / QUESTIONS. [Table I-1, Appendix I]**

Response: In many cases, the words “other relevant factors” are carried over from the Performance Work Statement. We have not yet expanded on all of the possible relevant factors because there is still much uncertainty about the degree to which we will obtain data across all of the respondents for each factor we may wish to analyze. In addition, we did not want to limit the type of variables included in the analysis until we have had an opportunity to work with the data. During the data collection process, we will be interacting with firms regarding the details, definitions, included information, and missing information. We want to be specific and ask for detailed data but we also want to be general so that they provide the things that are close to what we are asking for if they don't have exactly what we are asking for. On the question of livestock cycles, please see response above regarding the effect of livestock cycles on the analysis.

**8. Quarterly data is not likely to capture effects of seasonality. Monthly or even weekly data would be much preferred. If seasonality is important, quarterly data is not acceptable [page I-9, appendix 9]**

Response: We agree that seasonality can be an important consideration in the model of the lamb industry (and others that may be developed using a similar structure). Unfortunately, monthly and weekly data are not available from the secondary sources used to collect the data. Although some quarterly data are available, some variables are missing and preliminary attempts at estimation indicate poor results will be obtained. Thus, in some cases, we may only be able to estimate models using annual data. However, annual data allow us to estimate long term structural elasticities of supply and demand and will be appropriate for some parts of the analyses.

**9. Indicates GIS will be used if data can be obtained. Seems reasonable to expect at this point you would know if the data is available. And, if not, do you have a contingency plan or will this component of the analysis simply be skipped? [page I-13, Appendix I]**

Response: Because GIS approaches have not been used on these types of data previously, we are uncertain about the degree to which the approaches will be compatible with the data. In addition, given the nature of the data, the application of GIS approaches might be prohibitively resource intensive. Thus, our plan is to evaluate the approach using one of the smaller datasets and then make a determination of whether the analysis could be uniformly applied to other species and segments given the time frame and resources for the entire project.

**10. The profit / loss data plays an important role in several analyses. With what level of confidence do you expect this data to be available in the amount and level of detail necessary for your plan? Will its accuracy be in question? What are the contingency plans if it is not available or in the form / level of detail you need? [page I-15, Appendix I]**

Response: The transactions data collection (including the request for weekly P&L statements) is mandatory so we anticipate that if establishments have this data available electronically, then the data will be made available to RTI. We have revised the instructions for providing P&L statements to be more specific in our data request. Companies are asked to provide electronic copies of their weekly P&L statements (or monthly statements if weekly statements are not available) or use the template to provide the required data (see Table 3 in the instruction booklets for packers).

**11. Would like more support for your noted indicator of changes in quality. Seems reasonable in theory but not necessary for empirical application particularly given the quality indicators that will be collected (e.g., quality grade was noted in your list of data to be collected rather than cut of meat as here indicated) and the relative inflexibility of the animal carcass in producing particular cuts.**

Response: To the extent that there is additional quality variation not accounted for by disaggregation into elementary goods, you are right. The intent of the quality indicator is to simply account for quality variation arising from compositional changes in the products sold if it is necessary to aggregate the elementary goods into more composite goods. If we are unable to disaggregate the goods into elementary, homogenous goods, then it will be necessary to make quality adjustments on the "elementary" goods we begin with, using regression methods where we control for quality grades, etc.

**12. Your idea of how to look at risk regarding contract production in the hog industry is interesting. Because it is dependent on alignment of production contract incentives and those faced by an independent producer, there is some error built in (i.e., these are extremely unlikely to be the same). There will therefore need to be some consideration or at least discussion of how empirical application would be different. Here again you are relying on particular data that may or may not be available in the quantity / quality required for your proposed analysis. Do you have a contingency plan [page I-17, Appendix I].**

Response: The reviewer is correct when stating that the proposed method hinges on the assumption that the incentives of the contract operator and an independent producer are aligned such that the impact of grower effort on relevant technological indicators is the same in both

situations. The assumption is of course somewhat restrictive, yet still reasonable. Under the standard assumption that contracts effectively solve the moral hazard problem, it is hard to imagine why an independent producer would want to achieve higher feed conversion or lower livability than the contract producer. They may differ in the quantity of output (number and weight of animals) produced, but they would both strive to minimize costs per unit of output. So, we will consider risk shifting, given the size of operation and the targeted weight of animals. We are also collecting individual contracts settlement data as part of the transactions data collection process. The other possibility is to use the contract settlement data currently in the public domain. The researchers on the hog team have access to one such data set.

#### **OTHER COMMENTS SPECIFIC TO WORK PLAN**

**1. Other reasons for use of particular marketing arrangements are not noted (e.g., easy, traditionally used, only option available given size of operation). If using closed questions, might interview several folks from a variety of operations so you know you have covered most or all. Also, how do you propose to get them to know and tell the truth (e.g., they may simply be satisficing but not admit that even to themselves). [page 2-8]**

Response: The list provided is meant to be illustrative and is not exhaustive. We address reasons for use of particular marketing agreements in the industry surveys (data collection plan was provided separately). Based on the findings from the pretest interviews for the industry surveys, we will add additional options as appropriate. We will also include an "other, specify response" so respondents can write in reasons not included in the list. Regarding how we propose to get respondents to know and tell the truth, response bias is always a concern with surveys; we will address this in part by using a well-designed and thoroughly tested instrument.

**2. Regarding Task C-1. It is great that you apparently have a plan to check self-reported data (survey) against transaction data. This will be especially important. What is your plan if they don't align? [p. 2-10].**

Response: If they do not align, we will work on determining the reasons why they do not align and subsequently determine what adjustments need to be made in the analyses methods and interpretation of the results. However, in making these comparisons, we acknowledge that transactions data represent actual behavior and survey data are subjective.

**3. Throughout the plan it is important to consider validity of findings beyond the conditions considered, especially given the apparently short timeframe considered and the scope of the question considered.**

Response: We agree that the current conditions in the livestock and meat industries are unique. One reason for requesting data back to October 2002 is to obtain data for the time period prior to the finding of BSE in Canada in May 2003 that appears to have caused major changes in the markets for livestock and meat. In addition to analyzing the datasets as a whole, we will also segregate the datasets into different time periods to determine whether results are similar or differ in discernable ways. We can also conduct out of sample simulations, but this will require assumptions about how generalizable the results are. In any case, we will also describe qualitatively the effect of the livestock cycle on the observed data.

**4. Capacity utilization and effects of marketing arrangement on such may be as important as size economies due to, e.g., more volume because of a larger plant. Capacity utilization and the ease of changing such for individual firms again should be explicitly included as data is available.**

Response: Please see previous response regarding capacity utilization under Minor Questions/Concerns #4.

**5. You seem to have thought through contacting the “right person” at each firm. Just recommend that you work to ensure you have the right person and not the delegated person.**

Response: We will work to ensure that the correct person responds, but the responding company makes the ultimate decision about who responds.

## Reviewer E2

**This review focuses on the data collection plans and sample design material supplied by RTI. Generally, there are several alternate and equally acceptable approaches to an efficient sample survey design. With a reasonable amount of thought about other potential designs, given the somewhat exploratory nature of the study (a need for a breath in data collection rather than a narrowly focused set of estimates with clear precision requirements), and since this reviewer finds no glaring fault with the approach chosen, this review will not attempt to identify other potential designs, but will focus on issues related to methodology within RTI's proposed design.**

**While the proposed analysis models seem to be reasonable in capturing the structure of the industry, at least at the level of my knowledge of the industry, I leave it to substantive experts to determine the value of the proposed models in creating data useful for public policy. As for the data collection plan, it is quite good with respect to gathering a breath of data needed to create such models, especially in the use of good establishment survey protocols in making contact with the data providers. The preliminary survey materials appear well thought out, but do not let this comment imply that pretesting is not critically important.**

**Some specific design questions/comments:**

- 1. Early in the pretesting, identify the level of ability to provide the daily transactions. If firms have not kept the records or cannot provide the data, the impact on design and analysis will need to be reassessed. This may be especially true in the voluntary portion of the data collection.**

Response: Based on the pretesting, we believe most packers and processors have the majority of the transactions data in the format we need for the analysis. These data come from the sales and purchasing accounting systems maintained by companies and thus are largely maintained electronically. For the downstream participants for which the data collection is voluntary, we found that some firms have data in the format requested and others do not. The methods of analysis will need to be different for the downstream market participants. We anticipate that most of the analysis for downstream market participants will be based on responses to the industry surveys that are substantially less burdensome than providing transactions data.

- 2. Sometimes a firm that is large in a line of business is part of a larger organization that is very different and thus in a SIC code unrelated to agriculture. Will there be an effort to identify such firms in the Dun and Bradstreet list if they exist?**

Response: This will not be an issue when drawing the sample for packers and processors because we are using the Food Safety and Inspection Service Enhanced Facilities Database of all inspected meat and poultry plants, and are not selecting the sample on the basis of SIC code. For downstream market participants, we considered selecting the sample on the basis of all SIC codes (instead of primary SIC) to address the concern raised by the reviewer, but doing so would introduce many ineligible companies into the sample. In consultation with Dr. Mansour Fahimi,

the statistician for this study, we determined that selecting the sample on the basis of the primary SIC code is a more efficient approach.

**3. It would be useful to provide an estimate of the percent of total livestock in Table B-1.**

Response: As suggested, we have added this information to Table B-1.

**4. In analysis of the data, if a 50 percent nonresponse rate occurs as indicated, the impact on bias needs to be addressed.**

Response: We agree that nonresponse bias can be an issue. Dr. Fahimi and other staff will use statistical methods to analyze whether there are any systematic differences in the characteristics of companies that respond versus those that do not respond. This will allow us to determine if adjustments need to be made that affect how we analyze the data. Because the data collection effort is voluntary, we are limited in the methods we can use to encourage response. We will also obtain data through the survey data collection that will be used in the analysis for the downstream participants. Note that we will conduct nonresponse bias analysis for the industry surveys also.

**5. Provide more detail on disclosure avoidance (e.g., cite software used).**

Response: In preparing summary tables for the publicly releasable reports, RTI will not include results that are calculated from less than a specified number of respondents. We will evaluate whether specific responses could potentially be discerned from the data summaries. In addition, we will explore the possibility of using customized software to automate the manual evaluation process if it appears that the software would reduce time or resources for the process. If any summaries are prepared with fewer than the specified number of respondents, or if RTI or GIPSA have concerns about whether individual respondent information could be deduced from the summary tables, we will exclude that information from the publicly released report but may include the information in a confidential version of the report for GIPSA.

**6. Given the timeline for this study, how thoroughly tested can procedures be? Many important decisions need to be made in real time (as the pretesting is proceeding). It is critical to the success of the study that GIPSA have a COTR for this contract who is very experienced in managing a large and complex sample survey data collection effort. Experience in concepts of weighting, editing, imputation, confidentiality and disclosure avoidance, pretest methods, establishment survey methods will be invaluable in providing appropriate communication and guidance to the contractor.**

Response: We did not prepare a response to this comment. [GIPSA considers this and the next review point to be directed at project oversight and has considered them in its oversight responsibilities.]

**A final comment is in regard to invoking CIPSEA as a basis for data collection. This is a relatively new law and the OMB guidelines are not quite released. While I believe that this**

**is the type of data that the CIPSEA law was intended, be sure that GIPSA understands the extent of security that it must maintain on the data after it is turned over to USDA, the inability to use such data administratively, and the administrative requirements if other researchers were to be allowed access to the data after the study.**

Response: We did not prepare a response to this comment.

## **Comments on RTI's Survey Design and Draft Survey Instruments for the Livestock and Meat Marketing Study.**

*Note to Reviewers: We appreciate the comments on the draft survey instruments. Based on our changes in response to these comments, GIPSA's comments, and the pretest findings, we made substantial improvements to the survey instruments. In our responses below, the question numbers refer to the question number in the revised survey instruments.*

### **Reviewer E1**

#### **DATA COLLECTION PLANS**

*Note: In our responses, the question numbers refer to the question number in the revised survey instruments.*

**This reviewer was charged with the task of considering the plan of RTI for survey data collection for GIPSA's Livestock and Meat Marketing Study. Reviewed carefully was the section titled Collection of Information Employing Statistical Methods packet (Section B). Briefly reviewed were the draft surveys. Regarding the latter, it will be interesting to see what was changed as a result of the pre-test and I hope that can be identified in subsequent drafts.**

**As noted in the previous review, overall the data collection plan seems reasonable and well suited to the proposed analysis. I comment only on that material provided for review but comments noted in the previous review are indicated if particularly relevant to data collection (i.e., if not discussed in the materials provided but likely relevant to consider prior to data collection). They are noted as such.**

**Particularly appreciated is that you plan a census of top firms.**

#### **MAJOR CONCERNS / QUESTIONS**

**1. Again, a fifty percent response rate for food wholesalers, retailers, etc. seems very high given the extent of information you are looking for, even given your well-articulated plan to obtain a good response rate. It is indicated 50% would be sufficient for your analysis. However, what if the rate is lower? Do you have a contingency plan for obtaining more data? For example, perhaps a second individual could be identified for each firm as a reasonable responder. It may be the person and not the firm that is not responding and a second (or even third) individual to follow-up with could prove useful. If the response rate remains below that expected / planned for, what analyses will need to change? How?**

**You have added one citation (from 1995 and of a different population) and noted the response rates from surveys conducted presumably of the same population in 1994. However, this reviewer is still not convinced that you will achieve a 50% response rate. A contingency plan would be useful.**

**Response:** For the survey, we expect response rates ranging from 60 percent to 65 percent (the 50 percent response rate is for the transactions data collection). Our target response rates of 60 to 65 percent are in line with RTI's recent experience with establishment surveys. However, based on the pretest interviews conducted for this study, we anticipate that we may fall short of the target response rate for some industry segments, particularly downstream market participants. During the administration of the full scale survey, if we find that the response rates are lower than the target response rates, we will use a double sampling survey approach. Double sampling helps address nonresponse issues and accompanying cost concerns by spending the resources available for data collection more judiciously. Specifically, at a particular stage in the data collection period, a subset of the outstanding sample units will be randomly selected and remaining resources for data collection will be diverted towards just those sample units. Under this approach, the final response rate will be obtained as a function of the rate during the first phase, which will be 100 percent, and the achieved response rate during the second phase of data collection. Using this method, the resulting weighted response rate can be significantly higher than would otherwise be achieved without double sampling at the second phase.

All contacts to sampled establishments will be made by institutional contactors. These highly educated and specially trained interviewers are particularly adept at finding the right individual within the organization to complete the survey. Each institutional contact will be assigned a set of establishments so that they can better establish rapport and gain cooperation. If they find that the person identified to complete the survey is not being responsive, they will attempt to identify an alternate person within the organization.

**2. The time frame associated with the surveys is of concern. The concern is from several angles.**

**- First, how will you adjust for point in livestock cycles, particularly beef?**

**Response:** We agree that point in the livestock cycle is important to consider in the analysis. However, there is no practical way to change the data collection process to adjust for point in the livestock cycle. All of the respondents will respond for their most recently completed fiscal year. In conducting the analysis, we will consider the effects of the livestock cycle and also identify the effects of the livestock cycle in describing the results of the analysis.

**- Second, if you are asking for yearly information, how will you later assess the impact of seasonality? Perhaps also include questions related to seasonality, point in cycle, and those associated with unique market situations.**

**Response:** The transactions data collection (which requests daily data over a 2.5 year period) will be used to address seasonality and the point in the livestock cycle. There is no practical way to address seasonality in the survey instruments.

**- Of obvious concern are changes within the last year for packers and producers that buy from or sell to Canada. As previously mentioned, the period under consideration seems relatively unique (e.g., the Canadian and U.S. BSE cases and resulting market effects for beef and presumably substitute products and short and longer term production and**

**slaughter; the small cattle herd; new popularity of low-carbohydrate diets).**

**Response:** We added Question 8.8 to the beef packer survey which asks about the percentage of fed cattle purchased for slaughter during calendar year 2002 (prior to the ban on importation of cattle from Canada) that were imported from Canada. In conducting the analysis and reporting the results, we will evaluate and discuss the effects of the current state of the industry during the period under consideration.

**- Finally, why was a period of three years (forward and, in places, backwards) selected?**

**Response:** We selected a period of 3 years back and 3 years forward because we anticipate this timeframe would be sufficient to capture any major trends. Also, it would be easier for respondents to recall 3 years back and speculate 3 years forward, instead of using a longer time frame (such as 5 years). Based on the pretest findings, respondents were able to respond for the 3 year time period.

**3. Your list of reasons for employing alternative marketing arrangements seems relatively complete. Without proposing an alternative, I question your use of checking the three most important reasons. For example, assuring food safety may be important but identified by respondents as the fourth or fifth... most important reason (and thus not identified at all). If so, the results will identify it as not being a motivating factor. Perhaps you might ask a subset of your sample to identify those motivating factors (leaving the number up to them) and, although a bit more onerous, perhaps rank them. This would at least provide some idea of how much confidence we can place in the checking three top motivators method.**

**Response:** We considered asking a ranking question, but our experience suggests that many respondents do not answer ranking questions correctly (or find them very difficult to complete), and as a result you end up with data that are not useable. Thus, we did not revise these questions to include ranking. Also, our experience indicates that if you do not limit the number of responses, then some respondents would select nearly all as being important, which would not be very meaningful. Additionally, asking a subset of respondents to answer additional questions would further increase the burden (which we are attempting to minimize so that we can maximize the response rate) and increases substantially the complexity of the survey administration process.

**4. You address well respondent bias but not truth-telling. I trust you are still going to check responses against actual data but it is not clear how you will check responses that involve opinion and perception. It is amazing how many folks will respond they buy chicken because it is healthy and tasty as the top two reasons (versus convenience and price). Does it matter if the perception is not the reality, e.g., that perceived motivations for particular arrangements are different than actual motivators? As a plant manager, e.g., I would like to think I am motivated by food safety and perhaps have come to believe in that as a motivator because it is a standard firm statement when actually it may be capacity utilization, price, and size (versus quality) of animal that most impact our purchasing strategies.**

**Response:** We cannot guarantee that respondents will be truthful in completing the questionnaire and cannot identify a way in which we would be able to do this. However, as you suggest, we will compare some responses against the transactions data, and thus will be able in some instances to verify truthfulness. Also, our questionnaire development procedures include a thorough testing process. As described in the supporting statement, we used RTI's Question Appraisal System (QAS) which systematically evaluates each question along multiple dimensions, and conducted over 30 interviews with individuals from the target population to pretest the draft questionnaires.

## **MINOR CONCERNS / QUESTIONS**

**1. It is again indicated that state-inspected establishments will be excluded from the “respondent universe”. Will they be considered at all? Do you have any evidence to support the idea that use of alternative marketing arrangements by these establishments are likely to be limited?**

**Response:** The reviewer is correct in that we are excluding state-inspected establishments from the sampling frame for packers and processors. The vast majority of state-inspected establishments have fewer than 10 employees, thus these establishments account for only a very small proportion of slaughter volume. Regarding our statement that the use of alternative marketing arrangements is likely to be limited among state-inspected plants, the data we have to support this assertion are from the pretest. Although we did not interview any state-inspected establishments for the pretest, we did interview four federally inspected establishments that have fewer than 10 employees. None of these establishments used alternative marketing arrangements, thus supporting our conclusion that very small establishments do not typically use alternative marketing arrangements.

**2. It might be of particular interest to consider such if even some preliminary conclusions can be drawn simply because of the interest in value-added activities for existing production enterprises as supported, e.g., by the USDA Value-Added Grant Program. These are often awarded to smaller enterprises. A red flag goes up whenever I observe statements such as “most likely to use” or “likely to be limited”. You need support.**

**Response:** Regarding the USDA Value-Added Producer Grant Program, these grants are awarded to independent producers, eligible agricultural producer groups, farmer or rancher cooperatives or majority-controlled producer-based business ventures; they are not awarded to packers or processors (<http://www.rurdev.usda.gov/rbs/coops/vadg.htm>). Thus, we are unsure how the VAPG program is related to the need to include state-inspected plants in the sampling frame, since the program is targeted to producers, not packers.

**3. It is indicated that firms without reported revenue or employees will be excluded because you anticipate most of them are not currently operating, and that collection of transactions information will be limited to the largest firms because they are more likely to use a variety of alternative marketing arrangements. For both, why not verify your hypothesis before limiting the data collection? For the latter, it seems like you will be missing important input (i.e., if smaller firms are limited in the number and type of marketing alternatives**

**they do or can use, this and the reasons behind it are important). Also, you might miss some important marketing arrangement / firm size interactions.**

**Response:** For the industry survey, we are taking a census of the 50 largest establishments/companies and a sample of the remaining population, thus unlike the transactions data collection, we are not limiting the industry survey to the largest firms (see Table B-2 of the supporting statement). Our experience using the D&B database indicates that firms without reported revenue or employees in the database are not currently operating; thus it is more efficient to purge the sampling frame of inactive business units prior to drawing the sample.

**4. Confidentiality is of obvious importance, particularly given your dependence on information obtained from surveys. Will any of this information be subject to the Freedom of Information Act?**

**Response:** It is our understanding the data collected under CIPSEA is not subject to the Freedom of Information Act, but GIPSA could better address this question.

#### **Reviewer E2 - Review of the sampling plans for the GIPSA L&M Marketing Study**

**The revised documents have a much improved presentation of the sampling activities. As agreed to earlier, this review will not address the suitability of the data items collected for the economic analyses desired, but will instead focus on the sample survey design aspects of the study.**

**p. 9 D&B may be a problem as a frame for small family producers and maybe some large family producers. I cannot comment on this being fact, only raise the potential of it being a problem to be examined. While NASS would have had the ideal frame for this portion of the population, it is understandable that the use of NASS frames could be too restrictive for timely use in this study. The contractor should explore the availability of administrative lists of such producers that may be available in other parts of USDA. For example, does APHIS have lists, NCRS lists of help on livestock pollution problems, FSA lists of loan recipients with livestock, etc. These might make a better frame or a supplement to D&B (or at least a coverage check).**

**Response:** From previous experience, we know that government agencies are not authorized to provide confidential lists to other users unless informed consent is obtained. Thus, APHIS, FSA, NCRS would be unlikely to make their lists available to us for use in the LMMS study, and we would expend considerable time identifying to whom to make the request, making the request, and waiting for a response.

In constructing the sampling frames for livestock producers and feeders, we used all SIC codes (that is, we did not limit selection to the primary SIC code). This more comprehensive approach was used to ensure that very small producers (for which livestock production may be a secondary line of business for some establishments) are included in the respondent universe. Additionally, this approach ensures that establishments that produce more than one type of livestock are

included in the sampling frame for each type of livestock raised. While we may still exclude some very small operations (e.g., hobby farms), such operations account for only a very small proportion of industry volume.

**p. 10 Would meat packers supply names of suppliers to create a cluster sampling frame approach?**

**Response:** The reviewer is referring to a sampling procedure known as snowballing (not cluster sampling). Snowballing is not a probability-based method, and thus it would be difficult to obtain OMB approval. In addition, it would substantially increase the time needed to prepare the sampling frame.

**p. 13 Comment - the response rate assumptions seem reasonable.**

**Response:** We appreciate the positive feedback.

**p. 17 There is a clear explanation of the relationship of sample size to detectable error but no rationale on how the detectable error level is deemed sufficient for policy issue use.**

**Response:** Decisions about desirable sample precision involve a trade-off between the need for accurate data and the costs of obtaining it. Larger sample sizes yield greater precision, but large sample sizes also increase the cost of data collection. In our experience, the sample sizes we proposed will yield a level of precision that is deemed sufficient for policy issue use.

**The questionnaires - While considerably altered from the last version, I assume that these are still early drafts of the forms (and will have considerable usability testing etc.) as they are somewhat complex and at times difficult to follow (e.g. Q 7.1). They should have a through review from a person expert in visual design of both paper and web questionnaires.**

**Response:** The reviewer may be confusing the instruction booklets for the transactions data collection (reviewed previously) and the questionnaires for the industry surveys (included in the current review). Since your review, the questionnaires were reviewed by survey methodologists using RTI's Question Appraisal System (QAS), which is a systematic approach for evaluating each question along multiple dimensions. We also conducted over 30 interviews with individuals from the target population to pretest the questionnaires and made substantial revisions.

### **Reviewer E3**

*Note: In our responses, the question numbers refer to the question number in the revised survey instruments.*

**I have now had time to examine the materials that you have sent to me dealing with the GIPSA Livestock and Meat Marketing Study. Obviously, there is a mountain of thought and detail that has gone into the development of these materials. I will not pretend to have gone through all of the materials in systematic detail. But, I have gone through most of the materials to some degree and believe I have been able to decipher the principal points and ideas that are being pursued in the study. I have focused my attention in this review on the materials related to beef producers and processors.**

**To begin, I am impressed by the technical research group that has been organized for this study. Each of them is well-known and respected in the agricultural economic profession. However, a few do carry “baggage” with some producer groups in that they are considered to represent the interests of packers. I am not concerned with this personally, but it may influence the acceptance that any report “out in the country” receives after it is completed.**

**Response:** We appreciate the compliment. We hope that the peer review process, GIPSA’s review of the deliverables, and RTI’s involvement in the study as an independent not-for-profit research organization will help reduce concerns about anyone on our team appearing to represent the interests of packers.

**The plan for developing and administering the sample appears to be appropriate and thorough. The methods for gaining cooperation for and administering the survey also seem appropriate. I believe that the expected response rates may be optimistic. But, other than that, I really have no criticisms in regard to the sampling procedures.**

**Response:** The expected response rates of 60 to 65% represent the “best case” scenario. Based on the pretest, we anticipate that the response rates for some industry segments, particularly downstream market participants, may be lower than expected. During the administration of the full scale survey, if we find that the response rates are lower than the target response rates, we will use a double sampling survey approach. Double sampling helps address nonresponse issues and accompanying cost concerns by spending the resources available for data collection more judiciously. Specifically, at a particular stage in the data collection period, a subset of the outstanding sample units will be randomly selected and remaining resources for data collection will be diverted towards just those sample units. Under this approach, the final response rate will be obtained as a function of the rate during the first phase, which will be 100 percent, and the achieved response rate during the second phase of data collection. Using this method, the resulting weighted response rate can be significantly higher than would otherwise be achieved without double sampling at the second phase.

**The tone of the proposed study is squarely on an analysis of whether or not market power exists in these markets. This is appropriate based on the likely reasons why**

**Congress was willing to make such a substantial amount of money available to complete the study. The principle reasons in my mind for contracting and ownership arrangements are cost control and quality management (also part of the list of reasons indicated in the study). Concerning cost reduction and market power, the study uses standard models for estimating market power (market power is calculated indirectly). The input cost side is obviously well covered from the point of view of the costs of procurement. However, and I realize this may not have been feasible, the actual other costs (besides procurement) and revenues experienced by the firms are all imputed rather than given directly (at least that is my understanding from my reading of the materials). With such an enormous study being undertaken, it would be great if daily costs for all parts of the business (labor, utilities, repairs, etc.) and revenues could have been estimated so that actual marginal costs could have been compared directly with actual prices received.**

**Response:** It is not be feasible to collect these types of data through a voluntary survey because of the substantial burden it would impose. However, we will be collecting these types of data during the transactions data collection process. In particular, we are requesting profit and loss (P&L) statements in addition to transactions data. Because the P&L statements are on either a weekly or monthly basis, the analysis must use that frequency. We are not aware of any methods for obtaining daily data, and decision making is based on weekly data.

**On the quality side, I would like to see more attention to quality assurance and certification programs in the surveys. Specifically, I believe more information is needed about how firms are assuring quality. I will give some examples. In the beef producer surveys there was no mention of organic, natural, or source-verified programs. Also there is little indication of how these certifications are verified (for instance third-party certification is not mentioned as a possibility.**

**Response:** We expanded the list of certification programs to include third-party certification, organic certification, and ISO certification (for packers, processors, and downstream market participants) (see revised Question 1.11 in the beef packer survey). In addition, there is an "other" category so that respondents can write in other types of certification programs.

**In general the cost of certification programs is largely ignored in the materials.**

**Response:** It would be difficult to address costs of certification in the survey because of the number of different types of costs involved and thus the number of questions that would need to be added to address it. We agree that whether certification of products is required for participating in certain types of marketing agreements is an important issue. If this is a key reason for not using alternative marketing arrangements, respondents can write this in as a response to that question.

**Are there any programs incorporating HACCP for anything but food safety?**

**Response:** No, hazard analysis and critical control points (HACCP) is limited to food safety, specifically biological, chemical, and physical hazards.

**What about quality assurance programs at the farm level? This could include information about vaccinations, genetic selections, implantation, traceability, feedback on carcass quality, etc. Are the firms receiving ISO certifications?**

**Response:** We expanded the list of certification programs to include PQA and BQA (see Question 1.4 in the beef producer survey), which address quality assurance at the farm level. As noted above, we also added ISO certification to the list of certification programs. Additionally, in the beef and lamb packer surveys we collect information on the types of information received from the feedlot where the livestock were finished (see Questions 3.5 – 3.7 in the beef packer survey), which addresses feedback on carcass quality. We do not ask about the detailed information about vaccinations and implantation because these are addressed as parts of PQA and BQA programs. We do not ask about genetic selections and traceability because they are somewhat less relevant for the analysis, and it would be difficult to frame close-ended questions to address these.

**It seems that involvement in certification programs beyond Certified Angus Beef (which many believe is not closely scrutinized) are potentially costly but may be the avenue to better quality and could be closely connected to contractual or ownership arrangements. However, I don't see these types of programs appropriately represented, in my opinion, in the surveys. Granted, these programs are not common, but they may be important determinants of trends in ownership and contracting arrangements that are directed toward quality considerations.**

**Response:** We will be able to address the relationship between participation in certification programs (a determinant of quality) and the type of contractual or ownership arrangement in the analysis. We chose this approach rather than asking a specific question about the relationship to help minimize respondent burden.

**What about market development costs? Some companies, such as Harris Beef Ranches, Creekstone Farms, and Premium Standard Farms are heavily into market development activities that are tied to product development and quality including genetics, traceability, quality assurance, etc. Ownership and contracting arrangements are an important part of this effort. In short, I believe the questionnaire may miss some of this information.**

**Response:** We agree that market development costs may be important consideration, however, it would be difficult to frame close-ended questions about market development costs especially given the multi-year time periods involved in such development efforts. Also, this issue goes beyond the scope of the survey, since we want to focus on the use of, terms of, and reasons for use of alternative marketing arrangements.