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A Comparison of the Long and Short Forms Used in the 2005 Census Content Test

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EXECUTIVE SUMMARY

In preparation for the census of agriculture, NASS conducts a census content test. The purpose of the content test is to test the forms and procedures proposed for the census and to provide a pool of test data for census systems testing. During the 2005 Census Content Test, 2 forms were tested. The first "long" form was modeled after previous census forms. In addition, a "short" form was designed by reordering and reformatting the form. Blank space in the form was minimized and tables with pre-listed items were replaced with open tables where respondents had to write in their information. The short form contained 12 pages and the long form contained 24 pages.

Contrary to expectations, the short form did not increase the response rate and actually prompted slightly fewer returns. In addition, there were several areas where data quality was worse on the short form. The 2005 Census Content Test provided valuable data and recommendations for planning the 2007 Census and is documented elsewhere in a comprehensive final report. Based on the results of the content test, changes have been made both to the short form and to the types of operations who will be eligible for the short form in the census. The purpose of this report is to document only the comparisons between the short and long forms tested in the content test. Therefore, no recommendations are included in this report.

RECOMMENDATIONS

None

A Comparison of the Long and Short Forms Used in the 2005 Census Content Test

Jaki S. McCarthy[1]

Abstract

In advance of the census of agriculture, a content test is conducted to test procedures, systems and the report form(s) used to collect the data. During the 2005 Census Content Test two proposed versions of the 2007 report forms were tested. The two forms differed in format and number of pages. One version of the form similar to that used in the past was 24 pages long and had more extensive instructions and more information pre-printed on the form. A shorter twelve page form reordered and combined some questions, required respondents to write in more information and had less room for recording information. Both forms, however, collected the same information (with a few minor exceptions). The intent of the short form was to increase response and reduce the burden of reporting for operations which produce few commodities or have very simple operating arrangements. While intended for different types of operations in the 2007 Census, a split sample in the 2005 Content Test provided a rare opportunity to directly compare forms collecting the same data but with differences in page length and format. Contrary to expectations, the shorter form did not increase the response rate. In addition, the quality of the data provided on the short form was lower in several key areas. Additional insights regarding differences between the forms were also gained from follow up interviews with a subset of respondents. Based on these results, recommendations for changes and use of the forms were made for the 2007 Census of Agriculture.

1. Introduction

Many types of operations with very different types and amounts of agricultural production are contacted in the census of agriculture. However, only a handful of report form versions are used to collect their widely varying information. The traditional "long" form pre-lists most of the major commodities on the pages where their production should be reported, leaves substantial space for writing in additional commodities, and separates major sections of the report form onto separate pages. Operations with few commodities may skip substantial amounts of the form when they do not have the items of interest. The primary mode of data collection for the census of agriculture is by mail out/mail back using paper forms. Forms may be mailed to 3 million or more potential agricultural operations, and initial non-response is followed by a postcard reminder and a second mailing of the form. Additional pages in the form increase the weight and subsequent cost of the mail out package.

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It was suggested that an additional version of the form could be designed which could contain fewer pages and enable some respondents to complete it more quickly, particularly if they had small amounts or little variety in their agricultural production. The hope is that this will increase response rates for those sent this form. However, the available evidence for form length increasing non-response rates is inconclusive at best. See for example, the review of the literature on this subject by Bogen (1996). Some studies have found that questionnaires with more pages have a negative but modest impact on response rates. For example, Heberlein and Baumgartner (1978), Adams and Gale (1982) and Kalantar and Talley (1999) all compared questionnaires differing in the number of pages. Importantly, in each case, the questionnaires compared differed in page length, but also differed in the amount of data collected. This is not the case for the content test forms, which differ in length, but collect the same amount of data.

It is widely believed that longer forms appear more intimidating and prompt higher levels of non-response. Questionnaires may have their content squeezed onto fewer pages in the belief that a smaller physical form will prompt higher response rates. There is little empirical evidence for or against this belief; the 2005 Content Test presented an opportunity to examine this.

This research report is intended to document and discuss only the findings of comparisons between the short and long forms used in the 2005 Census Content Test. The full details of the 2005 Census Content Test are documented elsewhere (USDA, 2006). The Content Test prompted recommendations for changes to the census forms and procedures so no specific recommendations will be contained in this report.

2. Methods

Two versions of the 2005 Census Content Test form were designed. The first version designed was the "long" form which was similar in format and layout to the previous census of agriculture form. The second version of the form, the "short" form, was significantly condensed by eliminating many of the blank lines in the tables, combining some sections, rearranging sections to fill more of the pages instead of beginning new sections on new pages and omitting the production contracts page. With the exception of irrigated land and the production contracts (any operation likely to have production contracts would not be in the short form census sample) the information that should have been reported was the same for each form. That is, the forms differed in format, layout and question order but otherwise had the same content and were intended to collect the same data. Key differences between the long and short form are summarized below in Table 1, examples of some of the relevant sections of the forms are also shown in Appendix A.

Table 1. Key Differences between Long and Short Content Test Forms

	Short Form	Long Form
Crop and Livestock Production	All Crops and Livestock collected in a single section in small tables; no items pre-listed, most common listed as examples	Field Crops, Hay and Forage Crops, Woodland Crops, Nursery, Vegetables, Fruits and Nuts, Berries, Cattle and Calves, Sheep, Poultry, Hogs and Pigs, Aquaculture, Bees and Other Livestock, each in separate sections; most with common items (with units) preprinted, other items listed with item codes, and each section on a single page
Value of Sales	Value of sales collected in same tables as production	Value of sales by commodity or commodity grouping collected in one section separate from production
Land	Acres operated by ownership, followed by combined crops and livestock section, followed by acres operated by use (or land type)	Acres operated by ownership collected immediately preceding acres operated by use (or land type)
Irrigated Land	Not asked	Acres irrigated for Harvested Land; Pastureland collected
Production Contracts	Section excluded (no operations of this type expected in short form sample for the 2007 Census)	Additional page collected information on production contracts
Government Programs	Conservation and other government program information collected in abbreviated table with short list of examples	Conservation program acres and payments collected in one section, other government program payments by type (with full list specified in the question) collected in another section
Number of Pages	12	24

In the 2007 Census of Agriculture the short form will only be sent to a subset of operations. This subset will include operations expected to have few commodities and those not producing specialty commodities. However, to test how the form would be completed by all different types of operations (who may inadvertently get the short form in the census) a split sample, made up of subsamples of many specific types of farms was included in the Content Test. Definitions and subsample sizes are described in Appendix B. Operations in all states except Alaska and Hawaii were eligible for selection.

The National Processing Center (NPC) in Jeffersonville, IN mailed all the forms on 12/30/05. This was followed by a thank you/reminder postcard mailed to all operations on 1/17/06. Finally, a second form was mailed to all non-respondents on 2/9/06. Forms were returned to NPC where they were checked in, scanned (for image only) and data were keyed from electronic images.

Response rates were tracked for all form types. In addition, a small sample of respondents was sent a form identical to that used in the 2002 Census of Agriculture, modified only by updating all reference dates. Therefore response rates for that form could be compared with the proposed 2007 forms.

After responses were received from the mailout, a subset of respondents was recontacted and interviewed in person. These interviews verified some of the reported data and collected more detailed information for problem or suspicious data. There were also more general questions about completing the form. Three hundred re-interviews were targeted for operations in six target areas where it was felt that more information about reporting was needed. The six areas were: operations with production contracts, organic agriculture, berries, farms with land used on an Animal Unit Month (AUM) basis, farms on Indian reservations, and farms with government payments. Operations were selected from mail returns and contacted in re-interviews. (A small sample of respondents reporting via the Internet were also contacted in re-interviews, but will not be discussed here.) Re-interview samples were randomly selected from those with the target items and from the remaining returns received during December and January. (Early returns were used in order to complete the re-interviews in time for analysis before the deadline for finalization of the report forms.)

3. Results

Contrary to expectations, the short form did not have a higher response rate than either the long form or the 2002 version of the form. Overall response rates for the the three forms are shown below in Table 2. Response rates by form type and subsample are shown in Appendix C.

Table 2. Response Rate by Form Type

Form	Total Mailed	Receipts	Response Rate[2] Unweighted (Weighted) (%)
Short	12808	6870	53.24 (52.73)
Long	14860	8200	54.68
2002 Form Version	1978	1036	53.38

No additional analysis was done for the 2002 Form Version; all following comparisons are between the newly designed long and short forms.

[2] Some of the sample categories (sample subgroups) did not have the same number of sample cases for the long and short forms. The weighted response rate for the short form shown in the table was calculated by reweighting the short form subsamples to the long form subsample sizes. This short form response rate is more comparable than the gross unweighted response rate.

3.1 Comparisons between reported data on the long and short form mail returns

While the two forms ask for the same data, reporting errors differed depending on the form completed. For the following analysis, data from 5773 short forms and 6960 long forms were included. (Data from responses received via the Internet are excluded from this analysis, due to problems processing that data.)

All results that follow are based on unweighted and unedited data so results should be viewed with caution.[3] Differences in sample sizes and response rates across the two forms are listed in Appendix C. Chi-square tests of independence were performed to examine the relationship between potential problems on the form and form type. Results and significance levels are shown below each table.

Total Acres Operated

For both forms, both the Total Acres Operated based on ownership (K46) and Total Acres Operated based on land use (K798) must be reported. These two numbers should be equal (and this is explicitly stated on both forms). On the long form these two items appear on facing pages. On the short form, these two items appear 3 pages apart and are separated by the crop and livestock tables.

There were significantly more missing data for both K46 and K798 on the short form. In addition, there were significantly more instances on the short form where K46 did not equal K798 when at least one of them was reported.

Table 3. Problems with Total Acres Operated by Form Type

	K46 missing*	K798 missing**		K46 or K798 greater than 0	K46 <> K798***
Short	364 (6.3%)	841 (14.6%)	Short	5503	2180 (39.61%)
Long	358 (5.1%)	790 (11.4%)	Long	6702	1779 (26.54 %)
			Total	12205	3959

*χ^2 (1, N=12796) = 33.17, **χ^2 (1, N=12690) = 324.0, ***χ^2 (1, N=12205) = 15733.4; p<.0001

Crop Yield Reporting

For crops, respondents were to report acres harvested and the quantity harvested (bushels, tons, pounds, etc.). From this, yield per acre can be calculated. On the long form, the quantity harvested column includes the unit (bushel, tons) for the pre-listed crops. On the short form, there is a separate column where the respondent is to write in this unit. Some respondents mistakenly believed that the column for quantity harvested was acres, not the volume unit (i.e. bushels, tons, pounds, etc.) and reported the same number in both columns. For the crops pre-listed on the long form crop table, a significantly higher percentage of short form respondents reported the same number in the acres and quantity harvested columns producing an unrealistic

[3] Differences due to some types of operations being selected or responding at a higher or lower rate for the two forms are expected to be minimal, but cannot be ruled out. In addition, it is clear that there are reporting errors in the data, but there was no attempt made to edit any of the data collected. Finally, since the sample was not drawn to allow population estimates, this analysis cannot be used to measure the impact of the forms on population estimates.

yield per acre of 1. Shown are figures for corn and soybeans, similar results were found for oats (9% vs. 3%) and winter wheat (8% vs. 2%).

Table 4. Percent of respondents with commodity reporting a calculated yield of 1

	Corn*	Soybeans**
Short Form	11%	13%
Long Form	2%	2%

*χ^2 (1, N=1824) = 1738.4, **χ^2 (1, N=1545) = 2363.6; p<.0001

Reported hay yields also differed quite substantially between the forms. Current edit procedures will allow a calculated yield for tame hay (K110) between between 0.1 tons/ac and 13 tons/ac. Any yield falling outside the range will have that production removed and a new production (with an acceptable yield) will be imputed. The short form respondents had a much lower percentage of records falling into an acceptable range than the long form, 79% versus 93%, respectively.

Table 5. Percent of respondents with Low/High Tame Hay Yields

	Yield less than 0.1 tons/ac	Yield greater than 10 tons/ac
Short Form	83 (8.5%)	206 (21%)
Long Form	12 (1%)	52 (4%)

Crop Sales Reporting

One advantage that the short form might have over the long form is that crop sales are reported in the same table as the acreage and production. This might prompt greater reporting of sales than the long form, which has all the sales items in a separate section many pages later than crop acreage and production. However, the short form prompted slightly fewer corn producers to report corn sales, (short form, 61.9%; long form 63.9%). In addition, no short form respondents reported corn sales without any production, as would be the case if producers were selling previous year's production. In comparison, 1.6% of long form respondents reported corn sales and zero acres of corn production.

Milk Cows and Milk Sales

On the long form, milk cow inventory (K805) is collected in the Cattle and Calves section. Milk sales (K1340) are collected separately in the Value of Sales section, item 10 (Milk and other dairy products). In the short form, milk cow inventory should be reported in the cattle table and milk sales should be reported in the Livestock and Their Products table. "Milk from cows" is listed in the examples for this table.

While the number of milk cows reported is comparable across the 2 forms, it appears that milk sales are significantly underreported on the short form. A significantly lower percentage of operations reported milk sales on the short form than the long form (short form, 47.7%, long form 64.2%). The total value of sales and average sales of milk are also much higher for the long form respondents than the short form respondents. Full details are shown in Table 6.

Table 6. Milk cow operations and milk sales by size of operation and form type

Short Form

# Milk Cows	# Ops	# Ops w/ Sales	% Ops reporting sales	List Frame Control Data Milk Cows	Reported Milk Cows (K805)	Reported Total Milk Sales (K2146)	Avg Sales Reported (Per Operation reporting sales)
101+	38	22	**57.9**	6,821	8,016	$11,710,496	$532,295
51-100	80	47	**58.8**	5,532	5,904	$9,349,871	$198,933
21-50	94	56	**59.6**	3,690	3,518	$4,543,562	$81,135
1-20	75	12	**16.0**	351	408	$180,449	$15,037
Overall	**287**	**137**	**47.7%**	**16,394**	**17,846**	**$25,784,378**	**$188,207**

Long Form

# Milk Cows	# Ops	# Ops w/ Sales	% Ops reporting sales	List Frame Control Data Milk Cows	Reported Milk Cows (K805)	Reported Total Milk Sales (K1340)	Avg Sales Reported (Per Operation reporting sales)
101+	38	32	**84.2**	**7,874**	8,457	$25,063,458	$783,233
51-100	78	68	**87.2**	**5,217**	5,519	$12,160,393	$178,829
21-50	87	66	**75.9**	**3,332**	3,392	$5,960,691	$90,314
1-20	96	26	**27.1**	**416**	538	$306,314	$11,781
Overall	**299**	**192**	**64.2%**	**16,839**	**17,906**	**$43,490,856**	**$226,515**

Horses

Since horses are often not thought of as livestock, there was some concern that these might be omitted on the short form. For this reason, "horses" was the first example listed in the other livestock table in the short form. Even so, it appears horses were erroneously omitted, with a much higher percentage of respondents who reported horses in 2002 not reporting any horses on the short form than on the long form. Correspondingly, far more respondents who had not reported horses in the 2002 Census, reported horses on the long form than the short form. Since we would also not expect any difference in the number of horses added to these respondent's operations, the assumption is that short form respondents are uniformly underreporting horses.

Table 7. Horses reported in 2002 Census and Content Test by form type

	1 or more Horses reported in both 2002 and Content Test*	No Horses reported in 2002 and 1 or more horses reported in Content Test **	Total number reporting horses in either 2002 Census or Content Test
Short Form	356 (30.9%)	43 (3.7%)	1151
Long Form	1056 (62.3%)	287 (16.9%)	1696

*χ^2 (1, N=2517) =54859.4, **χ^2 (1, N=2860) =5715.7; p<.0001

Landlord (LL) Shares and Rent

Respondents with landlords may pay cash rent and/or provide landlords with shares of the production. We would expect that the proportion doing either would be the same regardless of the form used to collect the data. On the long form the question asking for landlord's share of the total sales (K1349) was the final question on the Value of Sales page. On the short form, it followed the series of crop and livestock tables which collected production and sales. Slightly fewer respondents who reported having rented land reported a positive value for K1349 on the short form. In addition, slightly more short form respondents reported having paid cash rent (K1513). However, overall the percent of respondents reporting rented land who reported either landlord share of sales, cash rent or both was comparable across the forms. In addition, on 41% of the short forms and 33% of the long forms the landlord shares equaled the total sales. This is inferred as an error and would be changed by the edit.

Table 8. Rented land and rent paid to landlords (LL) by form type

	Total Reporting Rented Land	Rented Acres & LL Share Reported (%)	Rented Acres & Cash Rent Reported (%)	Rented Acres & LL Share or Cash Rent Paid Reported (%)*
Short form	2012	387 (19%)	1287 (64.0%)	1421 (70.6%)
Long Form	2527	589 (23%)	1526 (60.4%)	1767 (69.9%)

*χ^2 (1, N=4539) = .02; p=.88

Government Payments

The short form collected government payments in a table with two empty lines and only a single line pre-printed with "Conservation Reserve Program (CRP,WRP, FWP, and CREP)". Other programs were listed as examples preceding the table. The long form collected Conservation Program acreage and dollars received in a separate section, Commodity Credit Corporation Loan (CCC) dollars in a separate section, and other Federal, State and local agricultural program payments in a third section containing 4 distinct types of payments. Payments reported on the short form were assigned to one of the six items shown below. Overall, more long form than short form respondents reported any government payment (long form—35.1%, short form—31.5%). In addition, long form respondents reported more government payments of all types except Conservation Programs (which were the sole type of payment preprinted on the short form in the table). Number of government payments reported by type are shown below.

Table 9. Number of payments reported (% of respondents), total and by type

	Total Number of Payments Reported*	CCC Loan (K1411)	Direct Payments (K1420)	Counter Cyclical Payments (K1421)	Other Federal Payments (K1422)	State and Local Government Payments (K1423)	Conservation Program Payments (K685)
Short Form	2502	34 (0.6%)	423 (7.3%)	531 (9.2%)	470 (8.1%)	0	1044 (18.1%)
Long Form	4562	261 (3.8%)	1252 (18.0%)	1239 (17.8%)	713 (10.2%)	224 (3.2%)	873 (12.5%)

*A chi-square test was performed to compare total number of payments out of highest possible number of payments (6 types per respondent); χ^2 (1, N=76398) =40,090; p<.001

Long form respondents also reported more types of payments than short form respondents as shown here. These results are likely a combination of short form respondents omitting payments completely and writing in entries that could not be assigned to any of the payment types.

Table 10. Number of government payments reported by individual respondent

	0	1	2	3	4	5	6
Short Form	3952 (68.5%)	1254 (21.7%)	453 (7.9%)	114 (2.0%)	0	0	0
Long Form	4514 (64.9%)	1171 (16.9%)	669 (9.6%)	416 (6.0%)	148 (2.1%)	39 (1.0%)	3 (0.0%)

3.2 Manual Processing and Review Required

Forms received by the National Processing Center (NPC) in Jeffersonville were scanned to electronically capture the form images. These images were used to key enter the data for processing. If there was not enough room on the form for a respondent to enter all their information, respondents were instructed to use an additional sheet to record their data. This instruction appeared in each table on the form. These additional sheets (extension sheets) had to be processed manually by NPC. In addition, data that could not be keyed directly from the form (that is, was not present in the pre-specified list of crops available to the keyers in a drop down menu) had to be manually processed by an analyst. This process, part of the Post Output Special Handling (POSH) requires additional NPC staff and time beyond the regular key entry process.

Short forms required substantial additional handling for both extension sheets and POSH, as shown below. Since a single form can have multiple problems, both the number of forms with problems and the total number of problems is shown. NPC estimated the potential work and resources this would translate to for the 2007 Census based on the sample size for the short form which had been suggested at that time, which is shown in Table 12.

Table 11. Content Test Manual Processing by NPC

	Number Keyed	Number of Forms with Extension Sheets (%)	Number of Forms With Problems (total problems)	% Forms Needing review by POSH
Short	5780	191 (3.3%)	1305 (2211)	22.6%
Long	6965	29 (0.4%)	263 (407)	3.8%

Table 12. NPC processing projections for 2007 Census

		Extension Sheets			POSH			
	Number Keyed	Number	Staff Days	$	Problems	Forms With Problems	Staff Days	$
Short	561,000	18,513	132	46,200	214,597	126,786	613	214,550
Long	1,139,000	4,556	33	11,550	66,557	43,282	190	66,500

In addition to the extra processing required by NPC staff for extension sheets, forms are also flagged for further review in the edit process. Under current plans for processing, each of these additional cases would have to be reviewed by a statistician in the edit review process. There are several types of flags that can be set, their definitions and number set by form are shown in the following table. (Any short forms reporting more than specified number of livestock or any greenhouse or nursery area will also be flagged for edit review.)

Table 13. Additional review flags set by NPC by form type

Flag	Definition	Short Form (%)	Long Form (%)	Total
A – Altered Stub	Respondent crosses out a pre-printed entry and writes in something else	152 (2.6%)	244 (3.5%)	396
B – Bracketed Entry	Respondent provides an entry and indicates it is for multiple items	67 (1.2%)	74 (1.1%)	141
D – Double Entry	Two numbers entered in a single cell (only first entry is keyed)	401 (6.9%)	90 (1.3%)	491
R – Remarks	Respondent writes remark to qualify item in a data cell	251 (4.3%)	220 (3.2%)	471
U – Altered Units	Respondent crosses out pre-printed unit and writes another unit	148 (2.6%)	114 (1.6%)	262
Total Forms Keyed		5780	6965	

Respondents on the short form crossed out fewer pre-printed entries, because fewer things are pre-printed on the report form. There are substantially more cases of short form respondents entering more than one number in a cell. This is likely a result of the limited number of lines in the tables. Instead of using a separate extension sheet to record this information, the respondent simply adds the information to the existing table. Processes are in place for extension sheets to be keyed by NPC, but double entries must be reviewed by a statistician before being keyed. It should be noted that there are already plans to add an additional line to the hay and field crop table of the short form and fewer respondents known to have multiple crops will be included in the actual Census short form sample.

3.3 Comparisons from Follow Up Re-interviews

Follow up interviews were completed with 486 respondents (230 long form and 256 short form). (The numbers below include all respondents who answered that particular question. For many questions some respondents did not answer, so total responses will be less.)

Follow up respondents were asked to report how much time it took them to complete the form. There was very little difference between the average amount of time reported to complete the

questionnaire. All answers keyed as 0 were omitted; average time was calculated for the remaining respondents. Similar proportions of respondents also reported using the instruction sheet (short form 65.2%, long form 64.5%).

Table 14. Respondent reported time to complete form by form type

	Average Reported Time to Complete (minutes)	Range (minutes)	Percent Reporting Use of Instruction Sheet
Short Form	44.46	2-300	65.2%
Long Form	47.87	10-480	64.5%

Note: if the one respondent who reported 480 is omitted, the average time for the remaining long form respondents is 45.49 minutes.

Similar to percentages found in the reported data, the percent of re-interview respondents who had Total Acres Operated by ownership that did not equal Total Acres Operated by land use (K46 <> K798) was greater on the short form (short: 39.6%; long: 21.35%). Several comments by short form follow up interview respondents indicated that since they had reported their crop acreage in Section 2, that they did not include those acreages in K798 in Section 3. On the long form, the two series of Total Acres Operated questions appear directly facing each other and are not separated by production questions, as on the short form. The other major problem was short form respondents skipping over this section due to interpreting it to only apply to government payments since the Section title is "Land and Government Payments".

Slightly more short form follow up respondents reported having agricultural activity that they did not include on the form and other problems completing the form. The specific comments given to these two questions are shown in Appendix D and E.

Table 15. Omitted production or problems reporting by form type

	Respondents with unreported agricultural activity (percent)	Respondents with other reporting problems (percent)
Short Form	9.9%	22.3%
Long Form	7.4%	21.2%

3.4 Calls to the Census Toll Free Telephone Number

Both the long and short forms included a toll free number that respondents could call with questions or for help completing the form. The percentage of operations that called the toll free number was small overall. Operators answering the calls logged comments for problems or actions taken for the calls (multiple comments could be logged for a single call.) A significantly smaller number of comments were logged for the short form sample operations to the toll free number. (The percent of comments logged for operations mailed the updated 2002 form version was 2.4%, the same as the long form.)

Table 16. Comments logged by toll free number operators

	Total Forms Mailed	Total Comments Logged (%)*
Short Form	12808	312 (2.4%)
Long Form	14860	418 (2.8%)

*χ^2 (1, N=27668) = 6.9; p=.009

3.5 Follow Up Re-interview Information from Short Form Respondents

Follow up re-interview respondents who had completed the short form were asked several questions that applied to the short form only. The short form listed a limited set of example crops and livestock while the long form listed all major crops and livestock items. Twenty-three short form respondents (10.4%) said they had crops or livestock not listed in the printed examples. Fourteen of those reported that they did not include these in the tables. None reported using a separate sheet to report them, thirteen of the fourteen omitted crops/livestock entirely, and 4 reported including something on the form but outside the tables.

Short form tables also had considerably fewer rows in the tables for reporting. Eighteen respondents (8.2%) said they did not have enough rows to report all their crops or livestock. Of those, half reported that they omitted crops or livestock from the form. Four reported them on the form outside the table, and 2 put them on a separate sheet. Again, it should be noted that in the Census, operations known to have more commodities than can be reported in the short form tables will be omitted from the short form sample.

Twenty-two short form respondents reported they raised specialty livestock. Of these, nine (41%) said they did not report the number on hand on the form. (Items included, bison, elk, alligators, horses, bees, rabbits and sheep.) Twenty-four reported producing livestock products, with 12 reporting they did not enter them on the form. (Omitted livestock products included milk, wool, honey, semen, and chicken manure.) The number of operations for which these reporting errors might occur will be minimized in the census, since operations known to have multiple or specialty commodities will not be included in the short form sample. However, if these operations with these characteristics are inadvertently given short forms, there may be some underreporting.

4. Discussion and Conclusion

For many respondents, a large number of the questions on the census of agriculture long form do not have to be completed. Therefore, a substantially shorter form could be utilized and allow these respondents to move through the form more quickly. In the 2005 Census Content Test, our gross measures of the time to complete the form (self reported respondent estimates) indicate that the short form is slightly faster to complete. A short form with half the number of pages will also cost less to print and mail. There is potential for substantial savings with the large volume of postal mailings in the census.

However, reducing the size of the form did not increase the number of respondents who returned the forms. The response rate was similar across the two forms in the content test and was

actually slightly lower for the short form than the long form. We should not expect the short form to prompt higher response rates in the census.

The short form also did not perform as well as the long form in several key areas, including reporting of total acres operated, crop production, government payments, milk sales, and horses. The short form is also more likely to prompt omissions, both due to the limited list of examples on the form and limited space to report in the tables. The limited size of the tables is also more likely to increase processing costs both in NPC and NASS analyst review time.

Based on these findings, several changes have been made in the forms and data collection plans for the 2007 Census of Agriculture. For example, the more detailed questions asking about government payments from the long form will be used on both versions of the form. Additional blank lines have also been added to several of the short form write in tables. In addition, the list of characteristics which will exclude operations from the short form sample has been expanded to include those for which we found major underreporting. This includes operations with horses, specialty commodities (such as goats, sheep, bees, aquaculture, mink, pecans, etc.), more than 4 types of livestock or crops, operations with milk cows, operations with other livestock products, etc.

The changes made to the short form based on information gathered in the 2005 Content Test should reduce other reporting errors. In addition, the limited sample targeted for the short form will likely minimize some of the potential data problems (notably under reporting of rare or numerous commodities). However, there is still potential for some negative effect on data quality, and plans for analyzing and processing data from these forms should take this into consideration.

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APPENDIX A.: Examples of Major Differences Between the Long and Short Forms.

1a. Field Crops and Hay table – Short Form
Note: Respondent has to enter the unit of measure in column 4; sales are collected in last column.

SECTION 2 **CROPS AND LIVESTOCK**

CROPS

1. At any time during 2005, did this operation harvest any field crops or hay and forage crops? Exclude crops grown on land rented to others. Examples include -

- Alfalfa hay
- Small grain hay
- Wild, dry hay
- Other hay (clover, fescue, timothy, etc.)
- Alfalfa haylage, grass silage, or greenchop
- Other haylage, grass silage, or greenchop
- Alfalfa seed
- Barley for grain
- Buckwheat
- Corn for grain
- Corn for silage
- Cotton
- Dry edible beans
- Emmer and spelt
- Fescue seeds
- Oats
- Peanuts
- Rice
- Rye for grain
- Ryegrass seed
- Sorghum for grain
- Sorghum for silage
- Soybeans
- Sugarbeets for sugar
- Tobacco
- Wheat, Durum
- Wheat, Spring
- Wheat, Winter
- Other field crops, specify below

1038 1 ☐ **Yes** - Report data ⬇ 3 ☐ **No** - Continue to item 2 on next page

Crop Name *If more space is needed, use a separate sheet of paper.*	Acres Harvested	Total Quantity Harvested	Unit (bushels, tons, pounds, etc.)	Acres Irrigated	Value of Sales
					$ .00
					$ .00
					$ .00
					$ .00

1b. Field Crops Section – Long Form

Note: Unit of measure is pre-printed in Total Quantity Harvested column; Hay is collected in a separate section; sales are collected in another separate section.

SECTION 5 FIELD CROPS

1. Were any field crops, such as corn, wheat, rice, etc., harvested from this operation in 2005? Include your landlord's share and crops grown under contract. Exclude crops grown on land rented to others.

1011 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 6

2. For those crops not printed in the following table, enter the crop name and code from the list below for any other field crop harvested in 2005. Report quantity harvested in the unit specified with the crop name.

Field Crop	Code	Acres Harvested		Total Quantity Harvested		Acres Irrigated	
		Acres	Tenths			Acres	Tenths
Tobacco - all types (tenth acres)	0094				Lbs.		

Field Crop	Code	Acres Harvested	Total Quantity Harvested		Acres Irrigated
Corn for grain or seed	0067			Bu.	
Corn for silage or greenchop	0070			Tons	
Oats for grain or seed	0076			Bu.	
Soybeans for beans	0088			Bu.	
Winter wheat for grain or seed harvested in 2005	0572			Bu.	

If more space is needed, use a separate sheet of paper.

FIELD CROPS	CODE
Alfalfa seed (pounds)	0542
Austrian winter peas (hundredweight)	0548
Bahia grass seed (pounds)	0551
Barley for grain (bushels)	0079
Beans, dry edible excluding limas (hundredweight)	0554
Beans, dry lima (hundredweight)	0557
Bentgrass seed (pounds)	0560
Bermuda grass seed (pounds)	0563
Birdsfoot trefoil seed (pounds)	0566
Bluegrass seed (pounds)	0629
Bromegrass seed (pounds)	0569
Buckwheat (bushels)	0575
Canola, edible (pounds)	0614
Clover, crimson clover seed (pounds)	0593
Clover, red clover seed (pounds)	0671
Cotton, Pima (bales)	0644
Cotton, Upland (bales)	0581
Emmer and spelt (bushels)	0599
Fescue seed (pounds)	0602
Flaxseed (bushels)	0605

FIELD CROPS	CODE
Hay - Report in SECTION 7.	
Herbs, dry (pounds)	0620
Jojoba harvested (pounds)	0626
Kentucky bluegrass seed (pounds)	0629
Lentils (hundredweight)	0635
Lespedeza seed (pounds)	0638
Mint, peppermint (pounds of oil)	0047
Mint, spearmint (pounds of oil)	0050
Mustard seed (pounds)	0650
Orchardgrass seed (pounds)	0653
Peanuts for nuts (pounds)	0656
Peas, dry edible (hundredweight)	0659
Peas, dry southern/cowpeas (bushels)	0584
Popcorn (pounds shelled)	0662
Potatoes - Report in SECTION 10.	
Proso millet for grain or seed (bushels)	0665
Rice (hundredweight)	0677
Ryegrass seed (pounds)	0689
Rye for grain (bushels)	0686
Safflower (pounds)	0692
Sorghum for grain or seed, including milo (bushels)	0082

FIELD CROPS	CODE
Sorghum for silage or greenchop (tons)	0085
Sorghum for syrup (gallons)	0704
Sorghum-Sudan crosses - Report in SECTION 7.	
Sudangrass seed (pounds)	0713
Sugarbeets for seed (pounds)	0716
Sugarbeets for sugar (tons)	0719
Sugarcane for seed (tons)	0725
Sugarcane for sugar (tons)	0722
Sunflower seed, non-oil variety (pounds)	0776
Sunflower seed, oil variety (pounds)	0773
Sweet corn for seed (pounds)	0740
Sweet potatoes - Report in SECTION 10.	
Timothy seed (pounds)	0746
Triticale (bushels)	0749
Vetch seed (pounds)	0755
Wheat, Durum (bushels)	0578
Wheat, Spring (bushels)	0728
Other field seed crop, specify above	0770
Other field crops, specify above	0752

2a. Other Livestock and Livestock Products Table – Short Form
Note: Horses listed as first example above table.

9. At any time during 2005, did you or anyone else raise, produce, or sell any other livestock or livestock products on this operation? Examples include -

- Horses
- Hogs, breeding
- Hogs, other
- Milk goats, goat milk
- Angora goats, mohair
- Other goats
- Milk from cows
- Colonies of bees, honey
- Llamas, alpacas
- Mules, burros, donkeys
- Rabbits, mink
- Bison, deer, elk
- Sheep, wool
- Fish in captivity
- Livestock products, specify
- Other livestock, specify

1037 1 ☐ **Yes** - Report data ⬇ 3 ☐ **No** - Continue to item 10 below

Livestock and Their Products *If more space is needed, use a separate sheet of paper*	Number on hand **December 31, 2005**	Total number sold or moved from this operation in 2005	Value of Sales
			$ .00
			$ .00
			$ .00
			$ .00

2b. Other Animals and Livestock Products Section – Long Form
Note: "Horses and ponies" individually listed in table.

SECTION 19 **OTHER ANIMALS AND LIVESTOCK PRODUCTS**

1. Did you or anyone else have any horses, goats, other livestock, or livestock products on this operation in 2005?

1237 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 20

		None	Number on December 31, 2005	Total number sold in 2005
2. Horses and ponies	0830	☐		
a. How many of these were **owned** by this operation?	0872	☐		
3. Mules, burros, and donkeys	0833	☐		
4. Milk goats	0843	☐		
5. Angora goats	0847	☐		
6. Meat goats and other goats	0851	☐		
7. Alpacas	0876	☐		
8. Llamas	0874	☐		
9. Bison	0886	☐		
10. Deer in captivity	0888	☐		
11. Elk in captivity	0890	☐		
12. Rabbits, including pelts	0854	☐		
13. Mink, including pelts	0836	☐		

			Number on December 31, 2005	Total number sold in 2005
14. Other livestock. Report emus and ostriches in section 15. Specify below ¬	0857	☐		

LIVESTOCK AND ANIMAL PRODUCTS

			Pounds clipped in 2005
15. Mohair	0849	☐	

			Quantity produced in 2005	Unit reported
16. Other livestock products - Include semen, embryos, worm castings, manure sold, etc. Specify below ¬	0970	☐		

3a. Government Payments – Short Form

	None	Number of Acres
6. How many acres were covered under a crop insurance policy in 2005? 1067	☐	

7. At any time in 2005, did you receive any payments for participation in any federal, state, or local government agricultural program? Examples include -

- Disaster payments
- Direct payments compensation
- Counter-cyclical payments
- CRP/WRP
- EQIP
- Government CCC loans
- Indemnity program payments
- Loan deficiency payments
- Peanut quota
- Soil conservation payments
- Other, specify

1040 1 ☐ **Yes** - Report payment type, associated acres, and amount received, where applicable

3 ☐ **No** - Go to SECTION 4 below

Program - *If more space is needed, use a separate sheet of paper.*	Acres	Dollars
Conservation Reserve Program (CRP, WRP, FWP, and CREP)		$ .00
		$ .00
		$ .00

3b. Government Programs – Long Form

SECTION 4 **CONSERVATION PROGRAMS AND CROP INSURANCE**

1. Were any acres in this operation enrolled in any federal conservation programs or covered by any crop insurance in 2005?

   1151 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 5

	None	Number of Acres
2. How many acres in this operation were enrolled in the Conservation Reserve Program (CRP), Wetlands Reserve Program (WRP), Farmable Wetlands Program (FWP), or Conservation Reserve Enhancement Program (CREP), on **September 30, 2005**? 0683	☐	
		Dollars
a. Amount received in 2005 for participation in these programs. 0685	☐	$ .00
		Number of Acres
3. How many acres in this operation were covered under a crop insurance policy in 2005? 1067	☐	

SECTION 24 **FEDERAL AND STATE AGRICULTURAL PROGRAM PAYMENTS**

1. Did this operation receive any Federal, State, or local agricultural program payments in 2005? Exclude CCC loan payments. Also exclude CRP, WRP, FWP, and CREP payments reported in SECTION 4.

   1036 1 ☐ **Yes** - Complete this section 3 ☐ **No** - Go to SECTION 25 below

2. Amount received from -	None	Dollars
a. Direct payments as defined under the 2002 Farm Act. 1420	☐	$ .00
b. Counter-cyclical payments, loan deficiency payments (LDPs), marketing loan gains, and net value of commodity certificates. Include payments received through cooperatives. 1421	☐	$ .00
c. Other Federal agricultural program payments. Include disaster payments and market loss payments, peanut quota compensation payments, national dairy market loss payments, non-insured assistance program, EQIP (Environmental Quality Incentives Program), livestock programs, and any other Federal programs. Exclude any type of insurance payments received. 1422	☐	$ .00
d. State and local government agricultural program payments. 1423	☐	$ .00

APPENDIX B: Sample Distribution by Form and Operation Type

GENERAL SAMPLE CATEGORIES

The table below describes the different subsamples of interest for the 2005 Census Content Test. Once a record was sampled for one of the categories below, it was removed from further sampling. List codes with small populations were sampled first with hopes that the needed sample sizes would be met for all categories.

Populations were sorted by Statepoid and then a systematic sample was created to ensure a geographic coverage in all States. Note: there were two exceptions below.

List Group 52 – Ten percent of the samples were from Oklahoma.

List Group 64 – Twenty-five percent of the sample were from North Carolina.

[List Groups 23, 87, & 88 – Poultry contractors, multi-county operations, and multi-state operations were originally included as target groups. However, these were subsequently removed and not sampled separately. To avoid renumbering all the assigned list codes, these groups remain in the listing with zero (0) as the number of samples pulled.]

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
Direct sales	K920>50	Rawdata	1	68252	200	200	25
Organics	K1069, K1350, ELMO304: any > 0	Rawdata	2	7995	200	200	25
CCC loans	K1411>20	all types	3	86628	200	100	25
Other government payments	K1412>20	all types	4	427912	200	300	25
Farm related income	sum(K992, K993, K994, K1401, K1402, K1403)>20	Rawdata	5	382337	100	100	25
Other production expense>5000	K1518>5000	Rawdata	6	77507	100	50	25
Landlord expense	K1519>20	all types	7	34243	200	100	25
Migrant workers	K1573=1	Rawdata	8	10999	100	50	25
Reservation land use	K1053>0	Edited	9	5669	100	50	25
Family corporation	K1681=1	Rawdata	10	46597	50	20	25
10+ stockholders	K1683=1	Rawdata	11	1846	50	20	25
Farm occup and >99 days off farm	K928=1, K929>3	Rawdata	12	175979	200	100	25
Other occup and < 50 days off farm	K928=2, K929<3	Rawdata	13	104577	200	100	25
No days off the farm	K929=1	Rawdata	14	554431	200	100	25
Hispanic	K927=1	Rawdata	15	19994	100	100	25
Hired manager	K1576=1 or ELMO	Rawdata	16	50339	200	20	25

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
	manager flag=1						
Abnormal	ELMO abmormal id > 0		17	2801	50	25	0
Computer O/S record	ELMO218=58		18	65705	200	200	25
Census I/S now O/S on ELMO	ELMO218=61 but AS (3, 4, 6, 11, 16, 17, 50)		19	51385	200	200	0
Active Status = 08	ELMO active status = 08 with a List to List link		20	72835	150	150	0
Bison	sum(K886,K887)>2 or ELMO691>2	Rawdata	21	3396	100	50	25
Unlisted livestock on census	sum(K857,K858)>2	Rawdata	22	2044	150	150	25
Poultry contractor w/ birds	ELMO759, ELMO764, ELMO771: any>1000		23	21	0	0	0
Poultry contractee	ELMO759, ELMO764, ELMO771 = 1		24	24502	100	200	25
Short rotation woody crops	K1025>1	Rawdata	25	2689	100	100	25
Refusals	ELMO person status contains 'REFUSAL'		26	28983	100	100	25
Horse farms inactive on ELMO	Inactive horse farms with active websites: AS (3, 4, 6, 11, 16, 17, 18, 50)		27	50	25	25	0
Rents in all land	K44=K46	Rawdata	28	77162	200	200	25
Has AUM land	K54 >0 in 1997	all types	29	28109	200	200	25
Has summer fallow	K791>1	Rawdata	30	19789	100	100	25
Government payments only	TVP=0, TVPG>0	calculated	31	124055	300	300	25
Crop insurance	K1067>1	Imputation /rawdata	32	310018	150	150	25
Tobacco	ELMO382>O		33	58437	400	200	25
Potatoes	ELMO360>0		34	8688	300	200	25
Sweet potatoes	ELMO380>0		35	2186	200	100	25
Ginseng	K767>0	Rawdata	36	304	50	50	20
Cotton in TX, AZ, CA, NM	ELMO325>0		37	13192	200	50	25
Rice in AR, LA, CA, MO, TX	ELMO365>0		38	7101	200	200	25
Multiple types of wheat	Count(K572, K728, K578)>1 in regions 3, 8, 9, 10, 11	Rawdata	39	4970	200	300	25

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
Has one wheat crop	Count(K572, K728, K578)=1 in regions 3, 8, 9, 10, 11	all types	40	42621	100	300	25
Has corn for grain and silage	K67>1 and K70>1	Rawdata	41	48666	100	300	25
Hay	ELMO344>0 or ELMO345>0		42	890250	200	400	25
Christmas trees	ELMO942>0		43	17906	100	200	25
Maple	ELMO902>0 or ELMO903>0		44	7179	100	200	25
Tobacco transplants possibility	ELMO382>0 and (ELMO913>0 or ELMO916>0)		45	411	150	100	25
Nursery	Nursery codes from Census and ELMO		46	56786	300	200	25
Asparagus	ELMO515>0		47	2618	100	100	25
Squash	ELMO558>0		48	10322	100	100	25
Peas	Count(ELMO574, ELMO559, ELMO551)>0		49	7289	300	100	25
Processed vegetables	VEGP>0 or Sum(ELMO517, ELMO522, ELMO537,ELMO541, ELMO549, ELMO556, ELMO562, ELMO565, ELMO573)>0	calculated	50	10611	200	100	25
Any vegetables	ELMO500>0		51	56235	300	400	25
Pecans	ELMO416		52	14561	200	100	25
Peaches	CA and AZ: ELMO451>0 and ELMO452>0		53	317	50	50	20
Berries	K1043>.1 or Sum(ELMO426, ELMO428, ELMO435, ELMO464, ELMO465, ELMO467, ELMO468, ELMO487, ELMO488) >0	Rawdata	54	16612	200	200	25
Beef cow total = cattle total	K803=K804, K804>20	Rawdata	55	16790	350	200	25
Edit changed cattle parts	Sum(K804, K805, K1206)>0	edited/ imputed	56	59195	350	200	25
Milk	K1340>20	Rawdata	57	47703	100	250	25

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
Cattle in selected states: 47, 1, 42, 19, 20, 48, 8, 6, 4, 53	ELMO610>0		58	334566	350	200	25
COF capacity<100	ELMO621<100		59	81455	200	0	25
COF capacity>99	ELMO621>99		60	26261	200	0	25
Layers	Sum(K892, K893)>2 or sum(ELMO758, ELMO759, ELMO760, ELMO761, ELMO762)>0	Rawdata	61	121321	200	200	25
Pullets	Sum(K1221, K895)>2 or sum(ELMO757, ELMO763)>0	Rawdata	62	15901	200	150	25
Broilers	Sum(K898, K899)>2 or sum(ELMO753, ELMO764, ELMO765, ELMO766)>0	Rawdata	63	42907	200	150	25
Turkeys	Sum(K1223, K1224)>2 or sum(ELMO754, ELMO770, ELMO771, ELMO772, ELMO775)>0	Rawdata	64	16806	200	100	25
Poultry hatch	K916>1 or sum(ELMO751, ELMO752, ELMO753, ELMO754)>0	Rawdata	65	18228	200	150	25
All other poultry	Other poultry codes from Census and ELMO where sum>4	Rawdata	66	32547	200	400	25
Hogs in IA and NC	K815>1 or ELMO633>1	Rawdata	67	10813	300	200	25
Sheep in selected states: 6, 54, 51, 47, 30, 56	Sum(K824, K825)>2 or ELMO640>1	Rawdata	68	9785	200	100	25
Bees	Sum(K839, K840, K841)>3 or sum(ELMO660, ELMO662, ELMO663)>0	Rawdata	69	27396	100	100	25
Horses in selected states: 12, 51, 36, 21, 48, 19, 32	Sum(K830, K831, K833, K834)>2 or	Rawdata	70	128925	400	200	25

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
	sum(ELMO674, ELMO675)>0						
Other listed livestock	Other livestock codes from Census and ELMO	Rawdata	71	113452	200	400	25
Livestock products exc. Milk	Sum(K828,K849,K841,K970,K1305)>3	Rawdata	72	29384	200	200	25
Vegetable contract	K1312>500	Rawdata	73	109	50	0	20
Other livestock contract	K1310>100	Rawdata	74	95	50	0	20
Custom fed cattle contract	K1308>100	Rawdata	75	1567	100	0	25
Horses in selected states coded as services: 12, 51, 36, 21, 48, 19, 32	[Sum(K830, K831, K833, K834)>2 or sum(ELMO674, ELMO675)>0] and ELMO674=2	Rawdata	76	190	50	50	20
Rangeland>10000	K796>10000	Rawdata	77	2554	200	100	25
Age>60	ELMO dtbirth < = 01/01/46		78	717750	300	300	25
Peanuts	ELMO354>0		79	9702	200	100	25
Fruits/nuts	K121>.1 or	Rawdata	80	116735	200	400	25
Other cattle=total cattle	K803=K1206	Rawdata	81	62889	200	200	25
Hairsheep	Hand provided list keyed into file		82	30	20	10	0
Landlord only	Active status =04		83	238949	300	300	0
Operators>5	K1575>5	Rawdata	84	3267	50	0	25
85/45s	(AS=0 and OD=85) with OD45	ignored farmflag	85	11415	100	100	0
Partnerships	(AS=0 and OD in (0,45,85,99)) with OD=44	ignored farmflag	86	141953	100	100	0
Multi-county operations	(AS=0 and OD = any), with polinktype 25 from AS=09 and (parent state = AS09 state for all AS09s)	ignored farmflag	87	443	0	0	0
Multi-state operations	(AS=0 and OD = any), with polinktype 25 from AS=09 and (parent state <> AS09 state for one or more AS09s)	ignored farmflag	88	179	0	0	0
Vegetables under glass	K503>400		89	1418	75	50	25
Hispanic changed			91	523	100	100	25
Reservation county			92	1079	75	75	25
EDR respondents- I	File provided by Gail Gregory		93	1567	50	50	13

General Sample

Category	Criteria	Census Data Type	List Group	Count in pool	Long Form Sample	Short Form Sample	2002 Form Sample
EDR respondents- II	Sampled from remainder of LC 93		94	1567	50	50	12
Special Case							
Aquaculture	Hand provided list		90	10	0	10	0
Totals					14,995	12,905	2,000

APPENDIX C: Response rates by form type and subsample

List Group		Long Form Sample	Long Form returns	Short Form Sample	Short form returns	Long Form Response Rate	Short form Response Rate	Diff. in Response Rate
1	Direct sales	200	132	200	115	66.00	57.50	8.50
2	Organics	200	130	200	123	65.00	61.50	3.50
3	CCC loans	200	111	100	48	55.50	48.00	7.50
4	Other government payments	200	119	300	169	59.50	56.33	3.17
5	Farm related income	100	61	100	60	61.00	60.00	1.00
6	Other production expense>5000	100	53	50	23	53.00	46.00	7.00
7	Landlord expense	200	117	100	49	58.50	49.00	9.50
8	Migrant workers	100	51	50	22	51.00	44.00	7.00
9	Reservation land use	100	45	50	19	45.00	38.00	7.00
10	Family corporation	50	33	20	9	66.00	45.00	21.00
11	10+ stockholders	50	33	20	12	66.00	60.00	6.00
12	Farm occup and >99 days off farm	200	109	100	57	54.50	57.00	-2.50
13	Other occup and < 50 days off farm	200	127	100	68	63.50	68.00	-4.50
14	No days off the farm	200	126	100	54	63.00	54.00	9.00
15	Hispanic	100	53	100	52	53.00	52.00	1.00
16	Hired manager	200	86	20	10	43.00	50.00	-7.00
17	Abnormal	50	24	25	12	48.00	48.00	0.00
18	Computer O/S record	200	121	200	130	60.50	65.00	-4.50
19	Census I/S now O/S on ELMO	200	131	200	109	65.50	54.50	11.00
20	Active Status = 08	150	65	150	67	43.33	44.67	-1.33
21	Bison	100	41	50	31	41.00	62.00	-21.00
22	Unlisted livestock on census	150	62	150	83	41.33	55.33	-14.00
24	Poultry contractee	100	62	200	95	62.00	47.50	14.50
25	Short rotation woody crops	100	62	100	56	62.00	56.00	6.00
26	Refusals	100	45	100	38	45.00	38.00	7.00
27	Horse farms inactive on ELMO	25	6	25	9	24.00	36.00	-12.00
28	Rents in all land	200	106	200	96	53.00	48.00	5.00
29	Has AUM land	200	93	200	102	46.50	51.00	-4.50
30	Has summer fallow	100	53	100	54	53.00	54.00	-1.00
31	Government payments only	300	209	300	212	69.67	70.67	-1.00
32	Crop insurance	150	84	150	77	56.00	51.33	4.67
33	Tobacco	400	211	200	108	52.75	54.00	-1.25
34	Potatoes	300	166	200	112	55.33	56.00	-0.67

35	Sweet potatoes	200	103	100	46	51.50	46.00	5.50
36	Ginseng	50	36	50	32	72.00	64.00	8.00
37	Cotton in TX, AZ, CA, NM	200	87	50	23	43.50	46.00	-2.50
38	Rice in AR, LA, CA, MO, TX	200	85	200	60	42.50	30.00	12.50
39	Multiple types of wheat	200	101	300	156	50.50	52.00	-1.50
40	Has one wheat crop	100	65	300	168	65.00	56.00	9.00
41	Has corn for grain and silage	100	51	300	155	51.00	51.67	-0.67
42	Hay	200	94	400	189	47.00	47.25	-0.25
43	Christmas trees	100	70	200	128	70.00	64.00	6.00
44	Maple	100	58	200	100	58.00	50.00	8.00
45	Tobacco transplants possibility	150	86	100	50	57.33	50.00	7.33
46	Nursery	300	200	200	108	66.67	54.00	12.67
47	Asparagus	100	60	100	54	60.00	54.00	6.00
48	Squash	100	49	100	48	49.00	48.00	1.00
49	Peas	300	127	100	49	42.33	49.00	-6.67
50	Processed vegetables	200	104	100	52	52.00	52.00	0.00
51	Any vegetables	300	149	400	189	49.67	47.25	2.42
52	Pecans	200	114	100	53	57.00	53.00	4.00
53	Peaches	50	26	50	16	52.00	32.00	20.00
54	Berries	200	107	200	104	53.50	52.00	1.50
55	Beef cow total = cattle total	350	182	200	94	52.00	47.00	5.00
56	Edit changed cattle parts	350	217	200	119	62.00	59.50	2.50
57	Milk	100	60	250	133	60.00	53.20	6.80
58	Cattle in selected states: 47, 1, 42, 19, 20, 48, 8, 6, 4, 53	350	183	200	105	52.29	52.50	-0.21
59	COF capacity<100	200	110	0	0	55.00		
60	COF capacity>99	200	86	0	0	43.00		
61	Layers	200	101	200	105	50.50	52.50	-2.00
62	Pullets	200	119	150	87	59.50	58.00	1.50
63	Broilers	200	97	150	81	48.50	54.00	-5.50
64	Turkeys	200	99	100	52	49.50	52.00	-2.50
65	Poultry hatch	200	129	150	75	64.50	50.00	14.50
66	All other poultry	200	121	400	221	60.50	55.25	5.25
67	Hogs in IA and NC	300	162	200	98	54.00	49.00	5.00
68	Sheep in selected states: 6, 54, 51, 47, 30, 56	200	101	100	51	50.50	51.00	-0.50
69	Bees	100	62	100	58	62.00	58.00	4.00
70	Horses in selected states: 12, 51, 36, 21, 48, 19, 32	400	193	200	89	48.25	44.50	3.75
71	Other listed livestock	200	112	400	203	56.00	50.75	5.25

72	Livestock products exc. Milk	200	117	200	125	58.50	62.50	-4.00
73	Vegetable contract	50	22	0	0	44.00		
74	Other livestock contract	50	19	0	0	38.00		
75	Custom fed cattle contract	100	47	0	0	47.00		
76	Horses in selected states coded as services: 12, 51, 36, 21, 48, 19, 32	50	14	50	14	28.00	28.00	0.00
77	Rangeland>10000	200	94	100	42	47.00	42.00	5.00
78	Age>60	300	191	300	185	63.67	61.67	2.00
79	Peanuts	200	70	100	36	35.00	36.00	-1.00
80	Fruits/nuts	200	111	400	214	55.50	53.50	2.00
81	Other cattle=total cattle	200	121	200	118	60.50	59.00	1.50
82	Hairsheep	20	12	10	4	60.00	40.00	20.00
83	Landlord only	300	184	300	179	61.33	59.67	1.67
84	Operators>5	50	25	0	0	50.00		
85	85/45s	100	48	100	52	48.00	52.00	-4.00
86	Partnerships	100	56	100	56	56.00	56.00	0.00
89	Vegetables under glass	75	42	50	27	56.00	54.00	2.00
91	Hispanic changed	100	58	100	51	58.00	51.00	7.00
92	Reservation county	75	33	75	30	44.00	40.00	4.00
93	EDR respondents- I	50	40	50	37	80.00	74.00	6.00
94	EDR respondents- II	50	37	50	42	74.00	84.00	-10.00
90	Aquaculture	0	0	10	7		70.00	
Total		14,995	8,174	12,905	6851	54.51	53.09	

APPENDIX D: Comments regarding agricultural activity not included on the report form

Form	State	Comment
short	5	HE SOLD A COUPLE OF GUARD DOGS.
short	6	NICE SIMPLE FORM-EASY TO FOLLOW-WROTE IN SOME MINOR IDEAS
short	16	BASICALLY LETTUCE & BERRIES & NURSERY STOCK REPOTTED AND REGROWN TO LARGER SIZES, CHICKENS & EGGS-NOTHING ELSE; ALTHOUGH OPERATION DOES VARY ITEMS GROWN EACH YEAR.
short	16	
short	16	
short	16	UNUSED PASTURE LAND.
short	16	DID NOT INCLUDE SMALL PIECES OF DRY LAND FARMS.
short	17	2 ACRES OF SOYBEANS PLANTED BY A NEIGHBOR ON PART OF ACREAGE WHERE NON-BEARING STRAWBERRIES WERE LOCATED AFTER THE STRAWBERRY SEASON
short	17	HAIR SHEEP - 1/2 DOZ
		AQUACULTURE ALLIGATOR INVENTORY WAS NOT REPORTED IN SECT 2, ITEM 9. * NOTE THE WORD AQUACULTURE WAS NOT LISTED NOR WAS ALLIGATORS LISTED.
short	22	
short	22	OPERATOR DECEASED AS OF JAN 25, 2006.
short	23	HOME GARDENS
short	26	3 HORSES-3 SHEEP-3 RABBITS DID NOT INCLUDE, CONSIDERED THEM PETS AND NOT AGRICULTURE PRODUCTS.
short	30	WE EARN A SMALL AMT FOR BLOCK MGMT THROUGH FWP IN MT.
short	30	SEMEN SALES.
short	37	HAD 4 SHEEP BUT DID NOT SELL PRODUCE HAD SOME CHICKENS BUT THEY WERE KILLED BY 12/31/05
short	39	HORSES FOR PERSONAL USE
short	40	BANTY CHICKENS - HOME USE
short	41	CHICKENS & HORSES - CONFUSION ON WHAT TO INCLUDE
short	41	KIWI & HART NUTS
short	42	ASPARAGUS 1 ACRE NOT LISTED. RASBERRY .05 ACRE TOO SMALL.
short	48	40 ACRES TIMBER LAND - PINE PLANTATION.
short	48	MADE COMMENT THAT QUESTIONNAIRE NEEDS TO BE KEPT SIMPLE.
short	48	OPERATOR GRAZED 100 ACRES OF CRP LAST YEAR. CATTLE BELONGED
short	53	DID NOT REPORT ACRES OF OATS FOR GRAIN.
short	53	HOBBY GREENHOUSE IS PERSONAL USE ONLY BY HIS WIFE.
long	16	THIS QUEST WAS COMPLETED OVER THE PHONE AFTER HE EXPLAINED TO ME THAT HE WAS A LANDLORD.
long	16	
long	19	NOTHING ON HORSES EXCEPT COUNT
long	21	GOT 17 HEAD OF SHOW GOATS
long	21	CHRISTMAS TREES. STAT NOTE: REPORTED SALES BUT NOT ACRES
long	26	IF THE NUMBERS WERE NOT AVAILABLE AT THE TIME THEY SAT DOWN THEN IT DID NOT GET REPORTED. I HAVE CORRECTED IT AS MUCH AS POSSIBLE.
long	26	SECTION 25-INCOME FROM RELATED SOURCE HAS ACRES IN GRAVEL PIT PAID AS ROYALTY FEES

		AS PER TONNAGE OF GRAVEL REMOVED
long	26	PA-116 MONIES NOT RECORDED, DID NOT REMEMBER TO DO SO.
long	29	FARM RELATED BUSINESS.
		SOLD $2000 OF CUT FLOWERS, NOT INCLUDED IN ITEM 6 SECTION21 COST OF FIRE PREVENTION PROGRAMS ARE NOW REQUIRED OF URBAN & RURAL OPERATORS BY STATE & LOCAL GOV.
long	41	
long	42	HAS 18 FRUIT TREES. THE SCREENER IN SECTION II ASKS FOR 20 OR MORE FRUIT TREES.
long	47	FARMERS CONCERNED ABOUT UPCOMING NEW REGULATIONS RAISING CATTLE; EXMAPLE:NEW REQUIREMENTS INVOLVING IN LIVESTOCK.
long	48	HE RECEIVED 12000 FOR PEANUT PAYMENT.
long	53	RAN OUT OF SPACE IN SECTION 10 BUT ADDED 2 ADDITIONAL LINES DID THE RIGHT THING!
long	55	WOOL ADDED VALUE FOR SPINNING AND WEAVING.

APPENDIX E: Comments regarding any other problems reporting

form	state	comment
short	1	HE HAD DIFFICULTY SEPARATING ACREAGE FOR VEGETABLES THERES NOT ENOUGH ROOM TO LIST EACH CROP HE ALSO THOUGHT THE HEADING FOR SECTION 3 WAS MISLEADING.
short	6	MOST OF THE QUESTIONS DO NOT APPLY
short	6	MISREAD QUESTION IN SEC. 1 ABOUT ACRES RENTED OUT
short	12	I DIDN'T HAVE INFORMATION FOR MY EXPENSES
short	13	WOULD HAVE HAD GREAT TROUBLE IF MORE HAD APPLIED TO ME.
short	16	TOO DETAILED; WOULDN'T HAVE EXPENSES, UNTIL TAXES DONE; DIFFICULT TO CONVERT SMALL QUANTITIES INTO ACRES
short	16	IF DATA DID NOT APPLY, OPERATOR CROSSED IT OUT.
short	17	TIME OF YEAR - RECORD BOOK - TAX MAN - FEBRUARY BETTER TIME
short	17	MR FISK WAS VERY RELUCTANT TO COMPLETE CENSUS FORM BECAUSE HE FEELS IT IS NOBODY ELSE'S BUSINESS
short	19	REQUIRED A LOT OF TIME.
short	21	CONFUSSING
short	23	K1094--PUT BIRTHDATE (SECTION 15).
short	24	WHERE TO SPECIFY SHE HAS ONLY PERSONAL USE CROPS (GARDEN)
short	25	TIME--TAKES TOO MUCH TIME TO COMPLETE.
short	26	DID NOT TAKE THE TIME TO READ ALL ITEMS AS CLEARLY AS POSSIBLE.
short	26	GREAT EDUCATION AND LANGUAGE PROBLEMS
short	26	HE DID NOT HAVE ALL OF HIS INFORMATION YET TO BE ABLE TO COMPLETE THE FORM ACCURATELY.
short	26	DID NOT ALWAYS UNDERSTAND SOME QUESTIONS AND IF IT WASN'T LISTED THEN NOT INCLUDED-JUST LEFT IT OUT.
short	27	NOT ENOUGH ROOM FOR VEGETABLE CROPS
short	27	SHOULD'VE SAID ON SEC3 THAT IT WAS FOR ALL LAND, RENT & OWN
short	28	HE HAD PROBLEMS UNDERSTANDING SOME OF THE QUESTIONS.
short	28	SOME OF QUESTIONS WERE REPEATING THEMSELVES AND TOO LENGTHLY. MISTAKENLY REPORTED AUM ACRES BECAUSE DID NOT UNDERSTAND.
short	29	WAS NOT SURE IF SHE WAS TO INCLUDE HER HOUSE AS PART OF THE FARM? (SHE DID)
short	29	THERE WAS NO PLACE TO RECORD SALE OF COW-CALF PAIRS.
short	30	ABSENTEE LNDLRD, LIVE IN MT & HAVE 160 AC FARM IN TX I DO NOT ACTIVELY OPERATE. RNT ALL LND OUT ON SHARES. LND RNTD TO OTH NOT SUBTRCTD FROM TTL AC OWNED. SEC 2 OK, EX IN SEC3
short	34	SOME COST CATEGORIES IN QUESTION - LABOR QUESTIONS SPECIFIC
short	35	VERY STRAIGHT FORWARD EXPERIENCED REPORTING IN WORKING WITH USDA SOIL CONSERVATION IN THE PAST
short	37	WILL NOT GIVE FINANCIAL INFORMATION TO ANYONE NO AGRI-TOURISM ANIMALS NOT FOR SALE/SLAUGHTER
short	37	HER OPERATION IS SMALL, MANY CROPS HARD TO PUT ON FORM
short	38	I DID READ QUESTIONNAIRE QUESTIONS GOOD. MADE MISTAKES ON
short	40	DID NOT UNDERSTAND ITEM 6 IN SEC. 1 ABD DID NOT UNDERSTAND THAT SEC.

		3 WAS FOR ALL LAND. THOUGHT IT WAS FOR GOV. PMT.
short	40	DID NOT UNDERSTAND SEC. 1, ITEM 6. DID NOT UNDERSTAND SEC. 3, ITEM 5 SHOULD EQUAL SEC. 1 ITEM 4.
short	40	DIDN'T UNDERSTAND SOME OF IT, DIDN'T KNOW WHERE TO PUT SOME FIGURES. TOO MANY THINGS TO LOOK THROUGH, TOO CONFUSING.
short	41	WAS A BIT CONFUSING, TOOK TOO MUCH TIME
short	41	THOUGHT THIS OPERATION WAS TOO SMALL FOR THIS CENSUS
short	42	SECTION 4 - TYPE OF OPERATION K1671 COULD BE 1,2,3.
short	42	MULTIPLE CUTTINGS OF HAY.
short	47	CRP WHAT IT STANDS FOR (FORM LEAVE SPACE TO WRITE WHAT I TH
short	47	WHAT I THINK IS WRONG INSTEAD OF SENDING SOMEONE OUT.
short	48	LENGTHY TOOK ABOUT 1 HOUR.
short	48	JUST GETTING INFORMATION TOGETHER.
short	48	DID NOT FILL OUT SECTION 7 BECAUSE HE DID NOT FARM IN 2005.
short	48	AMBIGUOUS QUESTIONS. TO A FEEDYARD. HE WAS PAID ON A PER GAIN BASIS.
short	53	DID NOT UNDERSTAND THE FORM.
short	53	VALUE OF SALES FOR PEARS HE HAD THE WRONG VALUE. SHOULD'VE BEEN $15,000.
short	55	DIDN'T SEE RENT FREE SECTION 1 QUESTION 2. NO PLACE FOR TENTH OF ACRE FOR TOTAL FARM ACRES.
short	55	PRODUCTION EXPENSES WERE A PROBLEM FOR ELAINE. LEE HAD TO FILL THIS OUT-ELAINE WAS NOT CLEAR ON THIS. (COULD NOT FIGURE OUT WHY THEY NEEDED TO KNOW ALL THIS STUFF)
short	56	TREATING AUM RENTAL INCOME AS SUCH IN THE REPORT SINCE IT IS FOR A FRIENDS HUNTING HORSE NOT REPORTED AS SUCH ON IRS
short	56	I DON'T THINK O FTHE UNIT AS AN AG UNIT. I INHERITED UNIT FROM FATHER.
short	56	EASIER THEN LAST YEAR
long	16	THIS QUEST WAS COMPLETED OVER THE PHONE AFTER HE EXPLAINED TO ME THAT HE WAS A LANDLORD.
long	19	NOTHING ON HORSES EXCEPT COUNT
long	21	GOT 17 HEAD OF SHOW GOATS
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