

Are you really who you say you are? Two case studies exploring respondent-reported misclassification¹

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Abstract

For surveys used to estimate population totals, correctly classifying sample units as in-scope or out-of-scope for the survey can have a sizable impact. This paper explores approaches the USDA National Agricultural Statistics Service (NASS) have taken to understand and measure misclassification resulting from respondents reporting their characteristics incorrectly. This respondent-reported misclassification can have a substantial impact on a survey program and the statistical estimates produced from it. For example, the wording of screening questions and how they are administered can determine whether a respondent qualifies or does not qualify for a survey. If a substantial number of respondents are misclassified, population estimates may be severely misstated.

To study respondent-reported misclassification, NASS conducted follow-up misclassification surveys for two separate programs: one for the 2015 Certified Organic Survey and one for the 2015 Local Foods Marketing Practices Survey. For these two misclassification surveys, NASS survey methodologists deconstructed the existing surveys' multi-construct screening questions used to determine whether the sampled units were in-scope for the survey, into simpler, single-construct screening questions. Telephone enumerators at NASS call centers then recontacted a subsample of the original surveys' samples and determined their classification with the new screening questions. Respondents who changed their classification were considered misclassified in the original survey.

Although the primary goal for both misclassification surveys was to produce misclassification weights for the original surveys' data, the secondary goal was to understand respondent-reported misclassification in order to reduce it during future data collections. Data analysis of the misclassification data from both surveys, in corroboration with qualitative evidence from interviewer-behavior coding, found that respondents appeared to have an easier time comprehending the questions that focused on simpler, single-construct screening questions. As such, this paper concludes with lessons learned from administering these two misclassification surveys and a discussion of how these lessons can be applied in order to reduce respondent-reported misclassification.

Key Words: misclassification, measurement error, coverage error, questionnaire design

¹ This report is released to inform interested parties of research and to encourage discussion. The views expressed on methodological, technical, or operational issues are those of the authors and not necessarily those of the USDA or the National Agricultural Statistics Service.

1. Introduction

For surveys that estimate population totals, how sample units are classified for a survey can have a sizable impact on the population estimates. For example, the impact of sample units not being classified correctly has been illustrated in previous studies conducted by the USDA National Agricultural Statistics Service (NASS) (Johnson 2000, Abreu 2007, Abreu et al. 2009). Although these existing studies have concentrated their efforts on understanding coverage error in the context of misclassification, they have not focused on understanding respondent-reported misclassification due to measurement error associated with the questionnaire used to administer the survey.

Respondent-reported misclassification as a result of measurement error can have a substantial impact on a survey program and the statistical estimates produced from it. For example, the wording of screening questions and how they are administered can determine whether a respondent qualifies or does not qualify for a survey. If a substantial number of respondents are misclassified as a result of misreporting, population estimates may be severely misstated.

To study respondent-reported misclassification, NASS conducted follow-up misclassification surveys for two separate programs: one for the 2015 Certified Organic Survey and one for the 2015 Local Foods Marketing Practices Survey. For these two misclassification surveys, NASS survey methodologists deconstructed the existing surveys' multi-construct screening questions used to determine whether the sampled units were in-scope for the survey, into simpler, single-construct screening questions. Telephone enumerators at NASS call centers then recontacted a subsample of the original surveys' units and determined their classification with the new screening questions. Respondents who changed their classification were considered misclassified in the original survey. This paper presents the results from these two case studies, lessons learned, and illustrates the importance of good question design in order to reduce the impact of measurement error on coverage error in surveys.

2. 2015 Certified Organic Survey

2.1 Background

The Certified Organic Survey is a census that is part of the U.S. Department of Agriculture's (USDA) NASS Organic Program. The 2015 iteration of the survey was the fourth organic production survey and second certified organic only production survey conducted at the state and national levels by NASS. The primary purpose of the 2015 Certified Organic Survey was to collect acreage, production, and sales data for a variety of certified organic crop and livestock commodities. Other information gathered on the questionnaire included marketing and agricultural practices.

While many farmers and ranchers operate using organic practices, only those certified by the National Organic Program (NOP) were considered in-scope for the 2015 Certified Organic Survey. According to the NOP, this means that organic food must be produced without the use of conventional pesticides, petroleum-based fertilizers, sewage- sludge-based fertilizers, herbicides, genetic engineering (biotechnology), antibiotics, growth hormones, or irradiation and certified as such. Animals raised on an organic operation must be certified and meet animal health and welfare standards, not be fed antibiotics or growth hormones, be fed 100-percent organic feed, and must be provided access to the outdoors.

Land must have no prohibited substances applied to it for at least three years before the harvest of an organic crop. Finally, all farms and handling operations that display the “USDA Organic” seal must be certified organic by the state or by a private agency, accredited by the USDA, to ensure the NOP standards are followed.

The 2015 Certified Organic Survey was fielded from February 2016 through April 2016 and collected information from 14,716 farms and ranches in all 50 states. These farms and ranches were identified as having organic production from the NASS list frame and external sources, such as administrative data from USDA’s Agricultural Marketing Services (AMS). Overall, response rates were 60%; 45% of the responses were collected by Computer-Assisted Telephone Interviews (CATI), 42% were collected by self-administered paper questionnaires, 8% were collected by a self-administered web form, and 5% were collected by face-to-face interviewer enumerated interviews.

At the end of data collection for the 2015 Certified Organic Survey, NASS conducted a follow-up misclassification survey via CATI. To do this, NASS contacted a subsample of respondents who reported positive certified organic production (in-scope for the survey) and no certified organic production (out-of-scope for the survey). NASS revised the original screening questions by deconstructing them into single-construct questions, while also asking about specific components of the process of becoming certified organic. If a respondent switched their original response to the survey, we asked the respondent why they were doing so. To assist the CATI enumerators with the open-ended why question, we provided a list of responses they could check or they could write in a response in a comment box. Attachment A shows both the original 2015 Certified Organic Survey screening questions and the screening questions used for the follow-up misclassification survey.

NASS assumes that these more detailed screening questions that were designed for the misclassification survey were better at measuring the construct of being certified organic than the original screening questions and as such, would reduce both measurement error and coverage error.

2.2 Results from Certified Organic misclassification survey

Overall, 1,090 farms and ranches were recontacted as part of the misclassification survey. The response rate was 64% (n=698); from those farms and ranches that were originally identified as in-scope for the 2015 Certified Organic Survey, the response rate was 60.2%; from those farms and ranches that were originally identified as out-of-scope for the 2015 Certified Organic Survey, the response rate was 66.9%.

The misclassification survey found 16 of 290 in-scope farms and ranches were not actually certified by the NOP and therefore should have been considered out-of-scope; a -5.52% reduction in the number of in-scope farms and ranches. Conversely, the misclassification survey found 29 of the 408 out-of-scope farms and ranches were actually certified by the NOP and therefore should have been considered in-scope farms and ranches; a 7.11% increase. The in-scope amount is adjusted by subtracting the -5.52% of the in-scope records ($6,659 * -5.52\% = -363$) and adding 7.11% of the out-of-scope records ($4,878 * 7.11\% = 347$) to the original count of in-scope records from the 2015 Certified Organic Survey ($6,569 - 363 + 347 = 6,553$). To calculate the overall misclassification weight the adjusted in-scope total is then divided by the original in-scope total; $6,553 / 6,659 = 0.998$. Since the misclassification weight is nearly equal to 1 it was concluded that for the

2015 Certified Organic Survey the amount of misclassification between in-scope records and out-of-scope records nearly canceled each other out.

To understand if there was a specific cause to the misclassification, NASS also calculated misclassification weights for different key variables in the survey, such as state (particularly those with a large number of certified organic farms and ranches), frame source, and total value of production, as illustrated in Table 1. Overall the observed differences in the misclassification weights broken out between the different variables were negligible.

Table 1: Misclassification weights by key variables.

Variable	Misclassification weight
State	
California	1.009
New York	0.976
Frame Source	
Agricultural Marketing Services	1.011
All other sources	0.989
Total Value of Production	
Less than \$100,000	0.989
More than \$100,000	1.007

When enumerators asked farmers and ranchers that changed their classification from the original 2015 Certified Organic Survey why they changed their answers, the most common reasons were other reasons written in by the CATI enumerators (n=18), don't know (n=7), and problems comprehending the original screening question (n=6). Table 2 shows the top six categories provided by farms and ranches that went from out-of-scope to in-scope. Table 3 shows the top six categories provided by farms and ranches that went from in-scope to out-of-scope.

Table 2: Reasons given by farms and ranches that went from out-of-scope to in-scope.

Reasons selected by enumerators (check all that apply)	Frequency
Other (please specify)	n=10
Don't know	n=7
Respondent did not understand/comprehend question	n=4
Operation has organic production but has never been certified	n=4
The operation is certified organic but there was no certified production in 2015	n=3
Different person from operation answered last time	n=2

Table 3: Reasons given by farms and ranches that went from in-scope to out-of-scope.

Reasons selected by enumerators (check all that apply)	Frequency
Other (please specify)	n=8
Respondent this time not familiar with USDA's National Organic Program (NOP) standards	n=3
Respondent did not understand/comprehend question	n=2
Operation has organic production but has never been certified	n=2
The operation does have certified organic production	n=2
Some of the operation's production is certified as organic and some is not	n=1

2.3 Interviewer behavior coding

Supplemental to the quantitative misclassification research, interviewer behavior coding was also conducted in a production setting on CATI enumerated interviews for the 2015 Certified Organic Survey. One survey methodologist conducted behavior coding for 50 random recordings from the CATI interviews and coded four exchanges for Question 1: the interviewer asking the questions, the respondent's initial response to the questions, the final response given by the respondent and documented by the enumerator, and the number of exchanges to get that response. Since only one survey methodologist did the interviewer behavior coding, no interrater reliability scores were calculated.

Evidence from this behavior coding found that the screening question was wordy and did not perform well when spoken, leading to shortcutting (i.e., not reading the entire question as written) on the part of the enumerator when asking the question. Furthermore, it often took the enumerator more than 2+ exchanges to receive a codable response from the respondent. It was observed that enumerators that instead broke up the screening question into multiple, single-construct questions often had less overall exchanges with the respondent in order to get a recordable response.

3. 2015 Local Foods Marketing Practices Survey

3.1 Background

The 2015 Local Food Marketing Practices Survey was the first-ever survey conducted by USDA's NASS to produce benchmark data about local food marketing practices. This survey, a special study of the 2012 Census of Agriculture, provided data on the marketing of locally and regionally produced agricultural food products, as directed under the 2014 Farm Bill.

To be in-scope for the 2015 Local Foods Marketing Practices Survey, farmers and ranchers must have produced and sold a product for human consumption that was then marketed directly to consumers, institutions, retailers, or to intermediate markets who sold locally or regionally branded products. Examples of farms and ranches that would be out-of-scope for the survey include operations that sold to traditional wholesale markets or sold products not for human consumption (e.g., flowers, Christmas trees). The survey's scope excluded farms that have different cost and expense structures, such as grazing associations, Indian reservations, and government operated units.

The 2015 Local Foods Marketing Practices Survey was fielded from April 2016 through August 2016 and collected information from 24,907 farms and ranches sampled from the NASS list frame in all 50 states. Overall, response rates from the list frame were 57.7%; 41% were collected by self-administered paper questionnaires, 40% of the responses were collected by Computer-Assisted Telephone Interviews (CATI), 13% were collected by face-to-face interviewer enumerated interviews, and 6% were collected by a self-administered web form.

At the end of data collection for the 2015 Local Foods Marketing Practices Survey, NASS conducted a follow-up misclassification survey via CATI. To do this, NASS contacted a subsample of respondents who reported as being in-scope (marketing of foods directly to consumers, institutions, retailers who then sell directly to consumers, and intermediate markets who sell locally or regionally branded products) and out-of-scope. In the revised screening questions, NASS deconstructed the second original screening question into four

separate questions that explored each marketing channel or construct; the hypothesis being that having single-construct screening questions would be easier for respondents to answer. NASS also added an additional screener question that asked if the farmer or rancher knew if the intermediate market specifically branded products as regional/local. In this new screening question, we allowed respondents to answer yes, no, and don't know. NASS added this question because previous research from cognitive testing found that the construct of intermediate markets was difficult for respondents to comprehend. Attachment B shows both the original 2015 Local Foods Marketing Practices screening questions and the screening questions used for the follow-up misclassification survey.

As with the misclassification survey conducted as a follow-up to the 2015 Certified Organic Survey, NASS assumes that these more detailed screening questions in the misclassification survey were better at measuring the intended construct than the original screening questions and would reduce both measurement error and coverage error.

3.2 Results from Local Foods Marketing Practices misclassification survey

Overall, 1,396 farms and ranches were recontacted as part of the misclassification survey for those operations on the NASS list frame. The overall misclassification sample response rate was 60.2% (n=841); from those farms and ranches that were originally in-scope for the 2015 Local Foods Marketing Practices Survey, the response rate was 70.53%; from those farms and ranches that were originally out-of-scope for the 2015 Local Foods Marketing Practices Survey, the response rate was 50.42%.

As a result of the misclassification survey, 76 of 481 farms and ranches moved from being in-scope to the original survey to out-of-scope to the follow-up misclassification survey (a -15.80% reduction). Sixty of 360 farms and ranches moved from being out-of-scope to the original survey to being in-scope to the follow-up misclassification survey (a 16.67% increase). Since the 2015 Local Foods Marketing Practices Survey was a sample survey and not a Census (like the 2015 Certified Organic Survey), the misclassification weight had to be calculated by adjusting for two probabilities: first, the probability that NASS wrongly classified a farm or ranch as out-of-scope when it actually was in-scope; and second, the probability that a farm and ranch was in-scope given that NASS classified it as in-scope. As a result, the overall misclassification weight produced by the Local Foods Misclassification Survey was 1.143, increasing the population estimate from the survey by approximately 14%. (The calculation of the misclassification weight was done as follows: weighted counts of (in-scope to in-scope + out-of-scope to in-scope) / (in-scope to in-scope + in-scope to out-of-scope)). Table 4 illustrates this in greater detail.

Table 4: Breakout of the number of farms and ranches by population, sampled, responded to misclassification survey, and the weighted response.

Classification	Population	Sampled	Responded	Weighted Response
In-scope to In-scope	4,410	682	405	2,618.8
In-scope to Out-of-scope			76	491.4
Out-of-scope to In-scope	11,136	714	60	945.8
Out-of-scope to Out-of-scope			300	4,679.0

In order to understand if there was a specific characteristic from the original survey contributing more to the misclassification, NASS looked at the different collection modes

of respondents in the original survey and whether they moved from in-scope to out-of-scope or out-of-scope to in-scope in the misclassification survey. At this time of this paper, NASS had yet to run statistical significance testing on the results; however, Table 5 illustrates this breakout from running this cross-tab. Overall, it appears that misclassification was not related to mode.

Table 5: Data collection modes from original survey cross-tabbed by misclassification results.

Mode	Overall %	In-scope to in-scope	In-scope to out-of-scope	Out-of-scope to in-scope	Out-of-scope to out-of-scope
Mail	53.51%	51.11%	53.95%	48.33%	57.67%
Telephone (RFO)	1.19%	0.74%	--	3.33%	1.67%
Face-to-Face	2.97%	2.47%	2.63%	3.33%	3.67%
CATI	33.06%	34.81%	35.53%	36.67%	29.33%
Web Survey	8.68%	10.12%	6.58%	8.33%	7.33%
CAPI	0.59%	0.74%	1.32%	--	0.33%

NASS also compared respondents' responses to the original screening questions and misclassifications screening questions to see where respondents switched their answers. Based off this analysis, almost all of the classification issues were associated with the original Question 2 (marketing of foods directly to consumers, institutions, retailers who then sell directly to consumers, and intermediate markets who sell locally or regionally branded products); as noted above, Question 2 was delineated into single-construct screening questions in the misclassification survey and explicitly asked about the constructs of consumer, retail, institution, and intermediate markets. See Table 6 for more information.

Table 6: Comparison of original screening questions and misclassification screening questions and where respondents switched their answers.²

Original Screening Questions	Misclassification Screening Questions	% that moved out-of-scope to in-scope (n=60)	% that moved in-scope to out-of-scope (n=76)
Question 1	Question 1	13.33%	2.63%
Question 2	Question 2	75.00%	97.37%
Question 3	Question 7	11.67%	--
	Total =	100.00%	100.00%

Finally, NASS reviewed the results from the additional screening question added to the misclassification survey which asked the farmer or rancher if they knew if an intermediate market which they sold their products to marketed said products as either regionally or locally branded. Many of these respondents indicated that they "didn't know" if this was the case, and as such, were classified as out-of-scope to the survey. See Table 7 for further details.

² Question 2 in the misclassification survey was composed of four separate screening questions. See Attachment B for more detail.

Table 7: Results from asking if the intermediate market sold the farmers or ranchers crops, livestock, poultry, or agricultural products as a locally- and/or regionally-branded product.

Classification	Response	Count	Percent
In-scope to in-scope	Yes	81	68.64%
	No	21	17.80%
	Don't know	16	13.56%
In-scope to out-of-scope	Yes	3	8.57%
	No	11	31.43%
	Don't know	21	60.00%
Out-of-scope to in-scope	Yes	21	80.77%
	No	4	15.38%
	Don't know	1	3.85%

3.3 Interviewer behavior coding

Supplemental to the quantitative misclassification research, interviewer behavior coding was also conducted in a production setting on CATI enumerated interviews for the 2015 Local Foods Marketing Practices Survey. Three survey methodologists conducted behavior coding for 65 random recordings from the CATI interviews and coded four exchanges for Question 1: the interviewer asking the questions, the respondent's initial response to the questions, the final response given by the respondent and documented by the enumerator, and the number of exchanges to get that response. For these four behaviors, interrater-reliability ranged from slight agreement to almost perfect agreement: the interviewer behavior had a Fleiss kappa score of 0.957 (almost perfect agreement); the respondent answering behavior had a Fleiss kappa score of 0.368 (fair agreement); the final response had a Fleiss kappa score of 0.194 (slight agreement); and the number of exchanges had a Fleiss kappa score of 0.519 (moderate agreement).

Evidence from this behavior coding found that nine out of 10 respondents had two plus exchanges with the CATI interviewer in order to get a recordable answer. In addition, similar to the 2015 Certified Organic Survey, CATI interviewers were shortcutting the screening question (i.e., not reading the entire question as written) or breaking up the screening questions into separate questions.

4. Implications and Future Research

These two case studies illustrate that respondent-reported misclassification, as a result of measurement error, can have an impact on a survey program and the statistical estimates produced from it. While the misclassified weight calculated for the 2015 Certified Organic Survey was nearly 1 and had a minimal impact on the overall population estimates, the misclassification weight calculated for the 2015 Local Foods Marketing Practices Survey increased the population estimates approximately 14%. These results underscore the importance of good question design in order to reduce the impact of measurement error on coverage error in surveys.

The implications of this research have had a lasting impact on NASS and the importance we place on good, questionnaire design; specifically, screener questions. For the 2016 Certified Organic Survey, NASS added a screener question and simplified the existing screener questions into simpler, single-construct questions with the expectation that this

would reduce measurement error, and as such, the need for producing a misclassification weight. Although NASS did not conduct a follow-up misclassification survey for the 2016 Certified Organic Survey, we do believe that the lessons learned from the 2015 misclassification survey, and applied to the 2016 Certified Organic Survey, will reduce coverage error in future iterations of that survey.

In regards to the Local Foods Marketing Practices Survey, NASS is beginning a multi-year research program to redesign and retest for future iterations of that survey. This will include testing and rewriting the Local Foods Marketing Practices Survey screening questions in order to better define the population of interest. In addition, NASS survey methodologists have discussed the need to better define key constructs used in the Local Foods Marketing Practices Survey, such as the term “intermediate markets” which remains an enigma for some respondents.

Finally, these two case studies contribute to the existing literature as they illustrate the importance of, and interconnectivity between, two types of errors: measurement error and coverage error. If records are not scoped correctly, their data can erroneously be included or excluded in all the other statistics produced from a survey. The result is that measurement error can result in misclassification for an entire population being surveyed rather than a biased estimate of the measure for a single statistic. Therefore, survey methodologists and survey organizations need to be cognizant as to how one type of error can impact another type of error; in other words, survey methodologists and mathematical statisticians working on population and sampling need to be collaborative in their efforts to reduce total survey error. Writing good screener questions, and allocating the resources to thoroughly test them, can pay dividends to a survey program in the long run. In addition, if resources allow, it may be just as important to test such questions with respondent that should be out-of-scope of the population of interest. This is because screening questions are used not only to define a population of interest, but also to identify those respondents that do not belong in a survey; if a substantial number of respondents are misclassified, population estimates may be severely misstated.

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Attachment A – 2015 Certified Organic Survey Screening Questions

Original Screening Questions

SECTION 1	OPERATION INFORMATION
111	<p>1. Did this operation have any Certified Organic production as determined by the USDA's National Organic Program (NOP) standards in 2015?</p> <p><input type="checkbox"/> Yes - Complete this Section <input type="checkbox"/> No - Go to Section 13, Transitional Acreage on Page 11</p>
119	<p>2. What is the name of the certifying agency or organization?</p> <div style="border: 1px solid black; height: 20px; width: 100%;"></div>

Follow-up Misclassification Screening Questions

Version 1:

- Operations that say NO to Q1 in the 2015 Certified Organic Survey but say YES to Q1 in the Misclassification Survey
- Operations that say NO to Q1 in the 2015 Certified Organic Survey and NO to Q1 in the Misclassification Survey

1. Did this operation have any Certified Organic production as determined by the USDA's National Organic Program (NOP) standards in 2015?

Yes – (Continue to Q2)

No – (Skip to Conclusion)

2. During 2015, did a USDA organic-certifying agent issue an organic certificate to this operation?

Yes (Skip to Q5)

No (Continue to Q3)

3. During any previous year, other than 2015, did a USDA organic-certifying agent issue an organic certificate to this operation?

Yes (Continue to Q4)

No (Skip to Q6)

4. In which year did a USDA organic-certifying agent issue an organic certificate to this operation? _____

5. What is the name of the certifying agency or organization? _____

Don't know

6. According to our records, earlier this year your operation reported that it did NOT have Certified Organic production in 2015. Do you know why we might have recorded that in our records? (Enumerator code respondent's response to all the response options that apply below. If respondent says "don't know", use response options to probe to get a specific response.)

This operation does not have Certified Organic production (this contact was incorrect)

The operation is Certified Organic but there was no Certified Organic production in 2015

Operation now has Certified Organic production, but did not during the previous contact

Some of the operation's production is certified as organic and some is not

Operation has organic production but has never been certified

Operation has organic certification but does not market products as organic

Respondent last time was not familiar with the term Certified Organic

Respondent last time was not familiar with USDA's National Organic Program (NOP) standards

Respondent did not understand/comprehend question

Different person from operation answered last time

Different records were used last time/or data was estimated

Don't Know – (If respondent says “don't know”, use response options to probe to get a specific response.)

Other: (Please specify)

Version 2:

- Operations that say YES to Q1 in the 2015 Certified Organic Survey and NO to Q1 to the Misclassification Survey
- Operations that say YES to Q1 in the 2015 Certified Organic Survey and YES to Q1 to the Misclassification Survey

1. Did this operation have any Certified Organic production as determined by the USDA's National Organic Program (NOP) standards in 2015?

Yes – (Skip to Conclusion)

No – (Continue to Q2)

2. During 2015, did a USDA organic-certifying agent conduct an on-site inspection of this operation?

Yes – (Skip to Q6)

No – (Continue to Q3)

3. During any previous year, other than 2015, did a USDA organic-certifying agent conduct an on-site inspection of this operation?

Yes – (Continue to Q4)

No – (Skip to Q9)

4. In which year did a USDA organic-certifying agent conduct an on-site inspection of this operation? _____

5. During [insert year from Q4], did a USDA organic-certifying agent issue an organic certificate to this operation?

Yes – (Continue to Q9)

No – (Continue to Q9)

6. During 2015, did a USDA organic-certifying agent issue an organic certificate to this operation?

Yes – (Skip to Q9)

No – (Continue to Q7)

7. During any previous year, other than 2015, did a USDA organic-certifying agent issue an organic certificate to this operation?

Yes – (Continue to Q8)

No – (Skip to Q9)

8. In which year did a USDA organic-certifying agent issue an organic certificate to this operation? _____

9. According to our records, earlier this year your operation reported that it had Certified Organic production in 2015. Do you know why we might have recorded that in our previous contact? (Enumerator code respondent's response to all the response options that apply below. If respondent says "don't know", use response options to probe to get a specific response.)

This operation does have Certified Organic production (this contact was incorrect)
The operation is Certified Organic but there was no Certified Organic production in 2015

Operation had then, but now no longer has Certified Organic production

Some of the operation's production is certified as organic and some is not

Operation has organic production but has never been certified

Operation has organic certification but does not market products as organic

Respondent this time not familiar with the term Certified Organic

Respondent this time not familiar with USDA's National Organic Program (NOP) standards

Respondent did not understand/comprehend question

Different person from operation answered last time

Different records were used last time/or data was estimated

Don't know – (If respondent says "don't know", use response options to probe to get a specific response.)

Other: (Please specify)

Attachment B – 2015 Local Foods Marketing Practices Screening Questions

Original Screening Questions

1. In 2015, did this operation (name on label):

- grow any **crops**, including field crops, fruits, vegetables, nursery/greenhouse, or other specialty crops; or
- cut any **hay**; or
- have any **livestock, aquaculture, poultry, or honey bees**; or
- sell any **agricultural products**?

0300 1 **Yes** – Continue 3 **No** – Go to Section 9 on page 16

2. In 2015, did this operation **produce and sell** any crops, livestock, poultry, or agricultural product **directly to a(n)**:

- **CONSUMER:** Farmers markets, on-farm stores or farm stands, roadside stands or stores, CSA (Community Supported Agriculture), online marketplaces; or
- **RETAIL MARKET:** Supermarkets, supercenters, restaurants, caterers, independently owned grocery stores, food cooperatives; or
- **INSTITUTION:** K-12 schools, colleges or universities, hospitals, workplace cafeterias, prisons, foodbanks; or
- **INTERMEDIATE MARKET:** Businesses or organizations in the middle of the supply chain marketing locally- and/or regionally-branded products, such as distributors, food hubs, brokers, auction houses, wholesale and terminal markets, and food processors?

0301 1 **Yes** – Continue 3 **No** – Go to Section 9 on page 16

3. Were any of the products that this operation produced and sold directly to a consumer, a retail market, an institution, or an intermediate market in 2015 **food for humans to eat or drink**?

INCLUDE	EXCLUDE	
• Edible agricultural products for human consumption	• Hay	• Christmas trees
	• Cut flowers	• Nursery products

0302 1 **Yes** – Continue 3 **No** – Go to Section 9 on page 16

Follow-up Misclassification Screening Questions

1. In 2015, did (insert operation's name on label or "you"):

- Grow any **crops**, including field crops, fruits, vegetables, nursery/greenhouse, or other specialty crops; or
- Cut any **hay**; or
- Have any **livestock, aquaculture, poultry, or honey bees**; or
- Sell any **agricultural products**?

Yes – *Continue to Q2*

No – *Skip to Q9*

2. In 2015, did (insert operation's name on label or "you") **produce and sell** any crops, livestock, poultry, or agricultural products **directly to a consumer**? This **includes**:

- Farmers markets;
- On-farm stores or farm stands;
- Roadside stands or stores;
- Community Supported Agriculture (CSA); and
- Online marketplaces.

Yes

No

3. In 2015, did (insert operation's name on label or "you") **produce and sell** any crops, livestock, poultry, or agricultural products **directly to a retail market**? This **includes**:

- Supermarkets;
- Supercenters;

- Restaurants;
- Caterers;
- Independently owned grocery stores; and
- Food cooperatives.

Yes

No

4. In 2015, did (insert operation's name on label or "you") **produce and sell** any crops, livestock, poultry, or agricultural products **directly to an institution**? This **includes**:

- K-12 schools;
- Colleges or universities;
- Hospitals;
- Workplace cafeterias;
- Prisons; and
- Foodbanks.

Yes

No

5. In 2015, did (insert operation's name on label or "you") **produce and sell** any crops, livestock, poultry, or agricultural products **directly to an intermediate market**? An **intermediate market** is a business or organization in the middle of the supply chain marketing locally- and/or regionally-branded products. This **includes**:

- Distributers;
- Food hubs;
- Brokers;
- Auction houses;
- Wholesale and terminal markets; and
- Food processors.

Yes – *Continue to Q6*

No – *If at least one of Questions 2-4 was answered "Yes", skip to Question 7; otherwise skip to Question 8.*

6. Did that **intermediate market** sell (insert operation's name on label or "your") crops, livestock, poultry, or agricultural products as a locally- and/or regionally-branded product?

Yes

No

Don't Know

7. Were any of the products that (insert operation's name on label or "you") produced and sold directly to a consumer, a retail market, an institution, or an intermediate market in 2015 **food for humans to eat or drink**?

Include:

- Edible agricultural products for human consumption.

Exclude:

- Hay.
- Cut flowers.
- Christmas trees.
- Nursery products.

Yes

No

8. Was (insert operation's name on label or "your") total gross value of sales, including government agricultural payments, \$1,000 or more in 2015?

Yes – *Skip to Conclusion*

No – *Skip to Conclusion*

9. Can you tell me why (insert operation's name on label or "you") did **NOT**:

- Grow any **crops**, including field crops, fruits, vegetables, nursery/greenhouse, or other specialty crops; or
- Cut any **hay**; or
- Have any **livestock, aquaculture, poultry**, or honey **bees**; or
- Sell any **agricultural products** in 2015?

Enumerator, please check all that apply and then proceed to conclusion:

The operation/location does not think of themselves as a farm, but it **DOES HAVE** agricultural activity – *Check box and go back to Q2 and complete interview*

The operation/location is no longer a farm or no longer has agricultural activity – *Continue to Conclusion*

The operation/location was never a farm or never had agricultural activity – *Continue to Conclusion*

The operation/location is on leased land and the operator gave up the lease – *Continue to Conclusion*

The operation/individual is out of business or sold – *Continue to Conclusion*

The operator of the operation is deceased – *Continue to Conclusion*

The operator of the operation is retired – *Continue to Conclusion*

The operator is a landlord and rents the entire operation out to someone else – *Continue to Conclusion*

The operator of the operation moved out of state (Please specify the new state the operator is located in : _____) – *Continue to Conclusion*

Other reason? (Please specify : _____) – *Continue to Conclusion*

[*Conclusion*] Thank you. This concludes the quality assurance follow-up for the 2015 Local Food Marketing Practices Survey. Your time and participation is greatly appreciated!