

Multi-use Field Testing: Examples from the 2017 Census of Agriculture Dry Run

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ABSTRACT

Many large data collections will run a field test prior to operational survey operations. This acts as a smaller scale dry run of the upcoming survey. The 2017 Census of Agriculture (COA) is the largest data collection conducted by the USDA's National Agricultural Statistics Service, and is conducted once every 5 years. Prior to the 2017 COA, a field test was conducted as part of a multi method questionnaire evaluation. This large field test was used as a dry run of the questionnaire and data collection processes, but also had several other objectives such as producing records for the initial donor pool for imputation, comparing the impact of alternative versions of the questionnaire on data quality and response rates, evaluating NASS's ability to accurately identify a pool of records for a reduced short form, testing a new online system for web reporting, and testing the ability of a pre-survey contact to help identify census nonrespondents. A field test dry run is a rare opportunity that can be leveraged in multiple ways to make improvements to the subsequent data collections. Results from the 2015 COA field test, how they were used to benefit the COA and how other survey organizations can use them will be discussed.

Dry Run – the term has origins in the late 1800's referring to exhibitions conducted by fire companies in which no water was used. Thus, fire companies could practice in realistic conditions, uncovering potential problems, before real emergency situations. (source: [www.wordorigins.org](http://www.wordorigins.org))

INTRODUCTION AND BACKGROUND

Many survey organizations conduct lead up activities to large data collections. Small scale testing of questionnaires and procedures may be conducted using methods such as focus groups or cognitive interviews. Following these smaller qualitative tests, survey organizations may also elect to conduct a larger scale field test that uses procedures that mimic operational survey procedures. This can include the use of finalized questionnaires, operational survey processing, respondents that are representative of the target population, etc. These field tests can be used to produce survey statistics, but often they are used simply to test materials and procedures and uncover any potential problems before the survey is fielded in earnest.

Large field tests require considerably more staff and resources than smaller scale testing, so survey organizations should consider how to get the most from these relatively rare opportunities. Some of the reasons to conduct a larger scale dry run are that results from smaller scale testing may not be representative of the survey proper. For example, most respondents in cognitive interview studies are cooperative, engaged and motivated. The

process that they use and the answers that they provide may not fully represent the respondents in your survey. In addition, many small scale tests use procedures that are not possible in a large survey. These may include the use of interviewers instead of self-administration, more highly trained interviewers, or individual review and handling of records.

Another advantage of dry runs is that they often utilize the same processing systems and can provide an early opportunity to do stress testing or gauge whether adequate resources will be available for the survey. For example, necessary staff resources for data collection, toll free help lines and the like may be unknown until data is collected using operational procedures. Processing systems and needs for editing may differ for large volumes of records rather than small samples. But of course, the biggest advantage of a dry run is being able to uncover potential unknown problems before they adversely affect your operational survey. Just as firefighters would rather uncover problems with getting crews to emergency sites before houses are on fire, survey organizations would like to identify and solve problems before the survey is in the field collecting data. This paper will discuss the large scale field test used as a dry run for the 2017 Census of Agriculture (COA). Selected results will be presented to illustrate information obtained from the dry run that could not have been obtained in other methods of testing.

#### THE 2015 COA CONTENT TEST

The largest data collection conducted by the USDA's National Agricultural Statistics Service (NASS) is the COA. Conducted every five years, for the years ending in 2 and 7, it includes all known and potential agricultural operations. Agricultural operations are defined as those with (or who would normally have) \$1000 or more in sales. Detailed information on commodity production and inventory, production practices, farm economics and the characteristics of the operator are collected in a 24 page form. Paper forms are mailed to approximately three million addresses at the end of the reference year, with an early February due date. Respondents can complete their paper forms and return them by mail or complete their forms via an online web form. Nonrespondents are followed up with telephone contacts and some limited in person interviews. Paper forms are scanned, data is captured electronically for editing (both automated and by analysts), and data is processed and weighted for nonresponse, coverage and misclassification. (More information about the census of agriculture can be found at [www.agcensus.usda.gov](http://www.agcensus.usda.gov).) Data is summarized at the county, state and national level.

Because of the size and scope of the COA, multiple methods of testing are employed to evaluate new content and improve the existing questions and data collection. Prior to the 2017 COA, NASS began the questionnaire evaluation with reviews of data from the previous census, expert reviews, and cognitive interviews. Examples of how these methods were used and examples of results from these tests can be found in McCarthy, Ott, Ridolfo, McGovern, Sirkis and Moore (in press). The initial small scale testing was followed by a large scale field test, our dry run. A large scale survey dry run can provide information that is impossible to obtain in testing such as focus groups or cognitive interviews. An overview of the dry run field test and selected results are presented to illustrate the type of information that was available only from the field test.

## Content Test Questionnaire Versions Tested

The 2015 Content Test included several versions of the form administered to randomly assigned split samples. A field test is an ideal place to embed experiments to evaluate different questionnaires and procedures (Fowler, 2004). The versions of the form differed in several ways, including the addition of new proposed questions and changes in questionnaire order, format, and layout. The demographic characteristics of farm operators are collected on the COA form and are used in non-response and other weighting. Because information such as age, race, level of education, veteran status and information on the farm household is considered more sensitive than information about agricultural commodities it has historically been collected late in the questionnaire. However, these items have higher item nonresponse rates than other items on the form. Therefore, one objective of the split sample testing was to evaluate if moving this section closer to the beginning of the form would reduce item nonresponse without negatively impacting data in the subsequent sections. While respondents' could be asked their opinions about this in cognitive interviews, they are unlikely to report that they would not respond or put lower effort into responding on later items in the questionnaire.

Other versions of the form varied in the formatting of sections collecting information about the acres and production of various crops. In past COAs, these sections typically consisted of tables with the most common crops pre-listed and several lines provided for respondents to write in additional crops (example in Figure 1). Because additional content had been proposed for the 2017 COA, alternative formats for these type of tables were proposed to save space on the questionnaire. Split samples were included to test the impact of eliminating the pre-listed crops, both within the table and on the page. Alternative versions with these types of tables were included (Figures 2 and 3). For versions without crops prelisted, either on the bottom of the page or in the table, respondents were directed to select the crops from a list included in a separate instruction sheet.

Another version of the form tested was a "short form". Because NASS has extensive information about sample units from previous surveys and censuses, the type of commodities produced and other characteristics can be predicted for a large proportion of the census mail list. A "short form" was developed to reduce respondent burden and costs. Many of the sections of the full 24 page questionnaire do not apply to individual respondents if they do not produce specific types of commodities. For example, an operation that has historically only grown corn, can receive a questionnaire that does not ask detailed questions about fruit, vegetables, Christmas trees, hogs, aquaculture, etc. The short form was designed by removing sections of the questionnaire for which respondents would not have to report. In order to verify that respondents did not have these items, simple questions about their presence/absence were included. Any respondent reporting that they had the unexpected items would be recontacted to collect the additional detail for that item. This can substantially reduce the number of pages in the form, reducing printing and mailing costs. NASS was also interested in the possibility that this might increase response rates. Split samples in the field test were included to measure the impact of the short form on response rates. The field test was also needed to evaluate how well the criteria for selecting records to receive the short form worked and provide a measure of the amount of follow up recontacts needed. Therefore, the traditional longer form was also sent to a sample of records selected using the short form sample criteria to evaluate what

information was reported in the sections missing from the short form (i.e. the detailed information that might have been missed if a respondent should not have gotten a short form).

Field Crop	Code	Acres Harvested		Total Quantity Harvested	Acres Irrigated		Value of Sales (Dollars)
		Acres	Tenths		Acres	Tenths	
Tobacco - all types (tenth acres)	0094			Lbs.			\$ .00
Field Crop	Code	Acres Harvested	Total Quantity Harvested	Acres Irrigated	Value of Sales (Dollars)		
Barley for grain or seed	0079			Bu.			\$ .00
Corn for grain or seed	0067			Bu.			\$ .00
Corn for silage or greenchop	0070			Tons			\$ .00
Dry edible beans - kidney, black, etc. - Exclude Limas	0554			Cwt.			\$ .00
Oats for grain or seed	0076			Bu.			\$ .00
Popcorn - pounds shelled	0662			Lbs.			\$ .00
Rye for grain or seed - Exclude ryegrass	0686			Bu.			\$ .00
Sorghum for grain or seed - Include milo	0082			Bu.			\$ .00
Sorghum for silage or greenchop - Report Sorghum-Sudan crosses in Section 7	0085			Tons			\$ .00
Soybeans for beans	0088			Bu.			\$ .00
Wheat, Spring for grain or seed, other than Durum	0728			Bu.			\$ .00
Wheat, Winter for grain or seed harvested in 2012	0572			Bu.			\$ .00
							\$ .00
							\$ .00
							\$ .00
							\$ .00
							\$ .00

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

<b>FIELD CROPS</b>	<b>CODE</b>	<b>FIELD CROPS</b>	<b>CODE</b>	<b>FIELD CROPS</b>	<b>CODE</b>
Alfalfa hay - Report in SECTION 7.		Herbs, dried (pounds) . . . . .	0620	Sorghum-Sudan crosses - Report in SECTION 7.	
Alfalfa seed (pounds) . . . . .	0542	Kentucky bluegrass seed (pounds) . . . . .	0629	Sudangrass seed (pounds) . . . . .	0713
Birdsfoot trefoil seed (pounds) . . . . .	0566	Lespedeza seed (pounds) . . . . .	0638	Sugarbeets for seed (pounds) . . . . .	0716
Bromegrass seed (pounds) . . . . .	0569	Mint, peppermint (pounds of oil) . . . . .	0047	Sugarbeets for sugar (tons) . . . . .	0719
Buckwheat (bushels) . . . . .	0575	Mint, spearmint (pounds of oil) . . . . .	0050	Sunflower seed, non-oil variety (pounds) . . . . .	0776
Camelina (pounds) . . . . .	0608	Mint, tea leaves (pounds) . . . . .	0767	Sunflower seed, oil variety (pounds) . . . . .	0773
Canola, edible (pounds) . . . . .	0614	Miscanthus (tons) . . . . .	0641	Sweet potatoes - Report in SECTION 10	
Clover, red clover seed (pounds) . . . . .	0671	Orchardgrass seed (pounds) . . . . .	0653	Switchgrass (tons) . . . . .	0647
Cotton, Upland (bales) - Include		Peas, dry edible (hundredweight) . . . . .	0659	Tarho seed (pounds)	0746

Figure 1. Commodity table with prelisted commodities

**SECTION 7 FIELD CROPS**

1. Were any field crops, such as corn, tobacco, wheat, etc., harvested from this operation in 2015?  
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 8

Acres Harvested		Acres Irrigated	
Acres	Tenths	Acres	Tenths

2. Acres on which field crops were grown in 2015.  
 Report multiple cropped acreage only once . . . . . 1780

3. Fill in the columns below for all field crops harvested on this operation in 2015. For those commodities not listed, enter the crop name and code from the table below or the commodity listing and codes in the instruction booklet.  
 • Include the value of your landlord's share, marketing charges, taxes, hauling, etc.  
 • Exclude from sales the value of items produced under production contracts.

Enter Field Crop Name	Enter Code	Acres Harvested	Total Quantity Harvested	Acres Irrigated	Gross Value of Sales (Dollars)	Amount used or to be used on this operation for feed, seed, etc.
					\$ .00	
					\$ .00	
					\$ .00	
					\$ .00	

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

<b>FIELD CROPS</b>	<b>CODE</b>	<b>FIELD CROPS</b>	<b>CODE</b>	<b>FIELD CROPS</b>	<b>CODE</b>
Alfalfa seed (pounds) . . . . .	0542	Emmer and spelt (bushels) . . . . .	0599	Rice (hundredweight) . . . . .	0677
Bahia grass seed (pounds) . . . . .	0551	Fescue seed (pounds) . . . . .	0602	Ryegrass seed (pounds) . . . . .	0689
Beans, dry edible (hundredweight) . . . . .	0554	Flaxseed (bushels) . . . . .	0605	Sorghum for syrup (gallons) . . . . .	0704
Beans, Lima (hundredweight) . . . . .	0557	Herbs, dried (pounds) . . . . .	0620	Sugarbeets for sugar (tons) . . . . .	0719
Buckwheat (bushels) . . . . .	0575	Kentucky bluegrass seed (pounds) . . . . .	0629	Sugarcane for seed (tons) . . . . .	0725
Canola, edible (pounds) . . . . .	0614	Lentils (hundredweight) . . . . .	0635	Sugarcane for sugar (tons) . . . . .	0722
Clover, crimson clover seed (pounds) . . . . .	0593	Peas, dry edible (hundredweight) . . . . .	0659	Triticale for grain (bushels) . . . . .	0749
Clover, red clover seed (pounds) . . . . .	0671	Peas, dry Southern/cowpeas (bushels) . . . . .	0584	Wheat, Durum for grain or seed (bushels) . . . . .	0578
Cotton, Pima (bales) - Include . . . . .		Popcorn (pounds shelled) . . . . .	0662	Other field crop, specify above . . . . .	0752
cottonseed in gross value of sales only . . . . .	0644	Proso millet for grain or seed (bushels) . . . . .	0665		

Figure 2. Commodity table with commodities listed below table

**SECTION 7 FIELD CROPS**

1. Were any field crops, such as corn, tobacco, wheat, etc., harvested from this operation in 2015?  
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 8

Acres Harvested		Acres Irrigated	
Acres	Tenths	Acres	Tenths

2. Acres on which field crops were grown in 2015.  
 Report multiple cropped acreage only once . . . . . 1780

3. Fill in the columns below for all field crops harvested on this operation in 2015. For those commodities not listed, enter the crop name and code from the table below or the commodity listing and codes in the instruction booklet.  
 • Include the value of your landlord's share, marketing charges, taxes, hauling, etc.  
 • Exclude from sales the value of items produced under production contracts.

Enter Field Crop Name	Enter Code	Acres Harvested	Total Quantity Harvested	Acres Irrigated	Gross Value of Sales (Dollars)	Amount used or to be used on this operation for feed, seed, etc.
					\$ .00	
					\$ .00	
					\$ .00	
					\$ .00	

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

Figure 3. Commodity table with no pre-listed commodities

## Field Test Sample

A stratified random sample of approximately 30,000 operations was selected from NASS's list frame for the field test. The sample was not selected to produce population statistics, but to include a set of respondents to allow testing of all sections of the questionnaire. As is common for establishment survey frames, NASS has descriptive information about most of the units on the sample frame. Thus, the sample was selected to include all regions of the country, and a range of sizes and types of operations. Minimum numbers of specific types of operations were also selected to ensure that all sections of the form would have some respondents reporting that data. For example, minimum numbers of operations who had previously grown fruit, vegetables, berries, hay, nursery, poultry, cattle, hogs, equine, aquaculture, sheep and goats, or had production contracts, etc. were included in the sample. Sample members were then randomly assigned to split samples to allow for comparisons between different versions of the questionnaire.

Because this is an establishment survey, several concessions were made in selecting the sample. For example, as is common for establishments, some units will be selected in many independent surveys. Any sample members who were included in other NASS surveys in the same data collection time frame were not eligible for the Content Test sample to reduce their response burden. This included all known organic operations, since NASS was also conducting a census of those operations at that time. In addition, some large establishments have special handling arrangements for their data collection due to their importance for specific estimates or the need for their ongoing cooperation. These establishments were also removed from the sample. The final sample size included in the field test was 29,740.

Randomly assigned treatment groups were included within the sample to allow for comparisons of the alternative questionnaire versions. Additional treatment samples were also included with operations selected using the short form criteria, mailed either a short form or a long form. A subset of operations was also selected to evaluate whether a presurvey mailing to collect contact information for the operation and respondent increased response rates or was useful for early identification of COA nonrespondents.

## Data Collection Methods

The field test schedule mimicked the COA timeline so data for the calendar year could be collected and seasonal effects on response would be similar. An initial mailing of a questionnaire and cover letter was sent in January 2016, collecting information for the 2015 calendar year. A reminder postcard followed two weeks later and a second questionnaire mailing two weeks after that. An online questionnaire was also available for response. This was also followed by CATI telephone follow-ups for nonrespondents. While the procedures were similar to those planned for the 2017 COA, there were a few notable differences. For example, the 2017 COA carries mandatory reporting authority, but the field test did not. In addition, there was no final in person nonresponse follow up. Finally, no population estimates were generated from the data, so no processing such as weighting and publication was included in the field test.

### Pre-Survey Contact

The field test also included a test of an additional pre-survey contact. Research has indicated that additional contacts in survey data collection can increase response rates. (Dillman, Smith and Christian, 2009). The Census Bureau experimented with contacting establishments in advance and asking them to identify a contact responsible for completing a later survey. They found that response rates were significantly higher for establishments who returned a contact name (Tuttle, Pick, Hough and Mulrow, 2010). To evaluate whether a similar pre-survey contact might increase response rates or help identify nonrespondents, a subset of 1000 operations was selected to test this. Half of this sample was mailed a letter asking them to verify or update their contact information prior to the COA field test mailout. Half of the group did not receive the letter and was used as a comparison control group.

### SELECTED RESULTS

Overall 18,864 responses were obtained for evaluation. The field test results included comparisons of response rates for alternative questionnaire versions and a review of errors (such as sub items not adding to totals, other inconsistent answers, item nonresponse and outliers or unusual answers) both overall and across versions (Ott, McGovern and Sirkis, 2016). Results were used to select the versions for inclusion in the 2017 COA and to identify any items with unacceptable error rates.

#### Evaluation of Placement of Personal Characteristics Section

The section collecting information about the agricultural operation, including demographics, other personal characteristics and information on the operator's household was placed either early or late in the form. This key information has had higher item nonresponse rates and is also used for non-response weighting. It was hypothesized that moving this to earlier in the form might reduce item nonresponse. However, there was concern that if it occurred early in the form, respondents might be uncomfortable and survey breaks offs or nonresponse for items later in the questionnaire might be increased.

Response rates for groups receiving the alternative versions of the questionnaire were comparable, with an overall response rate of 56% for versions with the section in the front, versus 57% for the versions with the section in the back.

However, comparisons of item response rates showed that all items in this section were reported more often when the section appeared near the front of the form. Most differences were statistically significant, and all differences were in the same direction. There was also no evidence of increased nonresponse in the other commodity sections, when the personal characteristics section appeared near the beginning of the form. Based on these results, the decision was made to move the section to early in the form.

#### Evaluation of Alternative Versions of Commodity Section Tables

Results were mixed comparing the commodities reported on the versions of the questionnaire with commodities either pre-printed or listed on the questionnaire. The hypothesized drop in reports for the commodities historically pre-printed in the table

(figure 1) was not uniformly seen for the versions without prelisted commodities. For some of the commodities prelisted in the table, higher numbers of respondents reported these, for others they did not. In addition, there were no significant differences across versions in the number of commodities reported in the sections. However, the versions without pre-printed commodities or commodity listings prompted more entries which could not be coded. For example, names which did not correspond to anything on the crop lists, crops reported in the wrong sections, or names which were not specific enough to be coded (such as “other vegetables” instead of specific types of individual vegetables). Based on this, the format with no commodities printed in the tables, but with crop lists beneath the tables was adopted for the 2017 COA (similar to figure 2).

### Evaluation of Short Form

As discussed above, the short form removed several sections of the form and replaced them with verification presence/absence questions shown in Figure 4.

1. Were any of the following crops grown or harvested on this operation in 2015?			
a. Vegetables, potatoes, sweet corn, or melons? . . . . .	1101	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
b. Fruit or nut trees, including grapevines? . . . . .	1047	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
c. Strawberries or other berries? . . . . .	1041	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
d. Nursery, floriculture, or greenhouse crops, including ornamental plants, flowers, mushrooms, aquatic plants, sod, food crops under protection, vegetable seeds, flower seeds, or other propagative materials? . . . . .	1032	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
e. Christmas trees or short rotation woody crops? . . . . .	1208	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
f. Maple syrup? . . . . .	1209	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
2. Did this operation own or custom feed for others any sheep, lambs, goats, or kids in 2015, regardless of location? . . . . .			
	1102	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
3. Did this operation own honey bees in 2015, regardless of location? . . . . .			
	1104	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
4. Did you or anyone else have any of the following livestock species on this operation in 2015?			
a. Hogs and pigs? . . . . .	1211	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
b. Aquaculture? . . . . .	1157	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No
c. Any other livestock or livestock products not already mentioned? . . . . .	1239	1 <input type="checkbox"/> Yes	3 <input type="checkbox"/> No

Figure 4. Short form verification questions

The short form was intended only for agricultural operations that did not have the listed commodities. That is, the expectation was that none of the operations receiving this form would report “Yes” to any of the questions listed in Figure 4. Any respondents who reported “Yes” would need to be recontacted and the additional detailed questions about that item would be asked.

Results of the field test showed that the short form did not increase response rates. Response rate for the samples mailed the short form was not significantly different from those receiving the long form. Importantly, the number of respondents checking “Yes” for the questions in Figure 4 was also obtained. The number of positive answers ranged from .6% to 5.7%, so could not have been evaluated in a small qualitative test. However, using the criteria used in the field test, the short form could have been used for over

500,000 records. Thus, the field test clearly showed that the number of recontacts needed would have been tens of thousands.

Evaluation of respondents from the short form criteria sample who were mailed a long form showed that some respondents did report information in the sections that did not appear in the short form. Review of the detailed commodity information reported showed that most reports were small, but there were a few exceptions with a few large reports (including a report of over \$1 million in sales for fruit, \$33,000 in sales of other livestock and 10,000 hogs).

Several of the field test respondents on the short form were recontacted and asked for detail on their answers. Several who reported “Yes” to the question about vegetables reported that they had home gardens for their own use. These are not supposed to be included and the long form includes instruction to exclude them. However, this instruction was not included in the short form. It was clear that this was prompting some of the positive vegetable reports. Based on this result, instructions to exclude vegetable gardens was recommended for the short form.

It was also clear from the field test results that the criteria used to select operations eligible to receive the short form was not restrictive enough. Based on this, recommendations were also made to add some of the deleted sections back to the short form. In addition, the Yes/No questions were replaced with questions asking for the acres or number of each item. This way, follow up recontacts could be prioritized if the number was excessive. Again, these results could not have been obtained in other smaller tests.

#### Pre-survey Contact

The pre-survey contact to verify or update the contact information for the respondents did not affect the response rate for the later COA questionnaire. Both groups had a response rate of 56%. In the sample group mailed the contact card (n=455), 45.5% returned the card. Most (188) returned the card indicating no change in contact information. An additional 12 provided updated information, and 5 reported they were not longer operating.

Importantly, the response rate for those who had returned the card was much higher than those who did not return the card. Therefore, this could be used to identify records less likely to return COA forms who could be targeted for early nonresponse follow up.

*Table 1. COA Response rates for Pre-survey Contact Experiment*

<b>Contact Card Group</b>	<b>Total</b>	<b>Census Forms Returned</b>	<b>Percent Response Rate</b>
<b>Card Returned</b>	207	145	70.1%
<b>Card Not Returned</b>	248	111	44.8%

### Other Uses of the Field Test

In addition to evaluation of the questionnaire, the field test was also used to provide data to test the processing and editing systems and as the initial donor pool of records for imputation in the 2017 COA. The field test was an ideal way to generate a large number of records with realistic data. It was superior to using prior 2012 COA data as it was more current and also included new content which had been added and was not included in 2012.

Another major advantage of the field test was that it required deadlines for systems and procedures to be in place well in advance of the operational COA. For example, a new updated online instrument was developed and had to be available in time for the field test. This mandated the deadlines for the instrument and associated system development. These deadlines would likely not have been as early without the need for an online instrument in the Content Test.

### DISCUSSION AND CONCLUSION

Large scale survey dry runs may only be fielded in rare cases. They are resource intensive and expensive, so may only be undertaken for large survey collections. Therefore, survey practitioners would be well served to leverage these data collections for multiple purposes. The basic objective of a field test is to run through the survey procedures as closely as possible to uncover any problems or potential issues before the survey proper is in the field. But survey methodologists should also think about the kinds of information that can only be obtained from field tests. For example, respondent behaviors that are unlikely to be reported by respondents when asked can be examined. Field tests can also be used to examine rare events that may not be identified in small samples. Field tests can also provide realistic data for use in testing systems and procedures. And a dry run can help accelerate survey planning by setting early deadlines. And of course the best use of dry runs is to identify any problems in the survey procedures and processing so that they can be addressed before the survey. Better to find out you've forgotten the extension ladder on the dry run than when the house is on fire! We were able to embed many experiments and objectives in the COA Content Test and this definitely helped NASS better prepare for the upcoming 2017 COA.

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