

**Coming Soon to a Mailbox Near You! The Effect of Pre-Census Publicity
for the USDA's Census of Agriculture.**

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Abstract

Promotion and publicity of large scale surveys has been routinely undertaken by organizations in the hopes of improving survey response. This may take many forms and information about upcoming data collection may be delivered to potential respondents in many different ways. The operational assumption behind promotion and publicity efforts is that higher awareness and more positive opinions of the survey will lead to higher data quality and lower costs. Costs can be reduced both through higher initial response and also with speedier responses (both leading to a reduction in costly followup data collection costs.)

Prior to data collection (and most publicity efforts) for the 2002 Census of Agriculture, the USDA's National Agricultural Statistics Service (NASS) conducted a survey of a subset of the Census population. This survey collected information about the respondents' awareness of the NASS, the upcoming Census of Agriculture and self-reports of exposure to publicity and promotion of the Census. Information was also collected again, after publicity and promotion for the Census had been conducted and respondents should all have received at least one mailed Census form to complete. Measures of the overall effectiveness of NASS publicity efforts were made by comparing results of the 2 surveys. Response rates and speed of response returns for those with the most knowledge of the Census were compared with those with the least. Analysis was also conducted to determine if the types of materials seen (e.g. NASS printed materials, media features, advertisements, live presentations or speeches, etc.), or the source of the material (e.g. from USDA personnel, from media sources, from friends and neighbors, from trade associations, etc.) affected response differently.

Results of this research will help determine whether publicity and promotion efforts are worthwhile and how best to target them.

1. INTRODUCTION

The National Agricultural Statistics Service (NASS) conducts the Census of Agriculture every five years. This mandatory Census is mailed to almost 3 million farms and potential farms in the United States to collect production, inventory, and financial farm data about the agriculture sector. Traditionally, the Census achieves at least an 80% response rate after several mail contacts and some telephone and personal visit followup contacts.

Over time, the response rates on the Census as well as on other NASS surveys have been declining. One strategy used to attempt to improve response rates for the 2002 Census of Agriculture was the use of a public relations and publicity campaign. The campaign focused on the Census mail due date, the importance of agricultural data, and participation of all types and sizes of farms and ranches. Many materials were produced by the national office, but most publicity activities were conducted done at the local level by State Statistical Offices in each state.

Materials that were produced included posters, bookmarks, flyers, drop-in advertisements for newspapers and magazines, radio broadcasts, and presentations for groups of various sizes. These materials were distributed by a variety of means including mailings, convention booths, counters in agricultural related business, interviewers who contacted local farm or ranch operators, and participation in association meetings or publications, and personal contacts.

Spending money on publicity can pay off financially if mail return rates can be increased. One of the most costly parts of data collection are the follow-up visits required for non-respondents. By convincing more farm operators to return their forms through the mail, NASS could potentially save a large amount of data collection money.

NASS is not alone in trying to use publicity as a means to increase response on their Census. Large scale public relations and promotional efforts were made by the Census Bureau for the Decennial Census in order to boost mail response rates. Even a slight

increase in the mail return rate of such a large data collection can greatly reduce costs by reducing the need for followup contacts.

There was not a specific publicity campaign budget. Funds were allocated from other sources or included in overall state office or department budgets. Therefore, the publicity work that was done was done on a small scale with very limited resources.

2. PUBLIC RELATIONS SURVEYS

In order to assess the impact of the publicity campaign, two surveys were conducted. The first survey was a baseline survey of approximately 6000 operations interviewed by telephone in October 2002. All 6000 operations were on the Census mail lists, so they would receive a Census form later in the year. The Census was mailed out in December 2002 with an initial due date in February 2003. In March 2003, a followup publicity survey was conducted with 12,000 farm and ranch operations. Three thousand of the operations were in both the baseline and followup survey.

This survey asked questions about the operator's awareness NASS and the Census of Agriculture, along with specific questions about publicity they saw or heard about the Census.

The sample for both surveys was selected using a stratified simple random sample. Operations were stratified into nine strata based on the size and type of operation as shown on the Census Mail List. There were three size categories based on the total value of sales for the operation. There were also three farm type categories -- crops, livestock and unknown. After crossing the three size strata with the three farm type strata, we had a total of nine strata. Sample was selected for each state, with sample weights based on the state and strata values. After the survey was complete, nonresponse weights were also assigned to each operation based on their state and strata.

3. RESULTS

Operators were asked whether prior to this contact they had heard of NASS. In Phase 1, 34.7% of the operations said they had heard of NASS, while in Phase 2, this increased to 42.5%. These awareness numbers are much lower than the numbers we saw in previous research at NASS, where approximately 85% of cooperators and 49% of refusals to the Quarterly Agricultural Surveys, Sheep, Hog and Cattle Surveys recognized NASS (McCarthy, Ott and Johnson, August 2000). This difference can be attributed to the fact that they asked these questions immediately following a NASS survey, so operators knew exactly who they were talking to. Also, the population for Census includes non-farms and many smaller operations. The Publicity Surveys, however, were done as stand alone surveys with no agricultural data being collected.

Overall, publicity did not reach a large portion of the farm population. Respondents were asked "Besides receiving the questionnaire, have you seen or heard anything about the 2002 Census of Agriculture?" In October, 6.7% of the operators said yes to this question. By March, there was an increase of 2.8% to 9.5% who said yes. However, overall exposure to Census of Agriculture publicity is low. Of course, given the very limited budget that was dedicated to the publicity campaign, a higher rate was not necessarily expected.

Those operations who reported exposure to Census publicity were then asked the source of the information as well as the material they saw or heard.

Table 1 shows the percentage of operators who reported exposure through a variety of sources. The percentages are subsets of those who said they saw or heard something. So, for example, 30.1% of the 9.7% of operators who saw or heard something, reported that they saw or heard it from an Agricultural Association.

Table 1: Source of exposure to Census of Agriculture (including only those respondents who saw or heard something)*

Did you see or hear about the 2002 Census of Agriculture from:	Response							
	Yes		No		Don't Know		No Answer	
	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II
	-----percent-----							
Magazine or newspaper	37.7	40.8	48.0	55.3	12.8	3.1	1.5	0.8
USDA employee or literature	36.8	40.3	51.4	56.4	10.3	2.5	1.5	0.8
Conversations with friends, neighbors, coworkers	30.6	31.1	57.7	65.4	10.2	2.8	1.5	0.7
Agricultural Association	31.3	30.1	50.4	63.9	17.8	5.3	0.5	0.8
Radio or TV**	11.8	29.9	75.3	66.8	11.3	2.5	1.5	0.8
Elevator, auction barn, or other buyer	8.1	7.3	78.3	89.1	12.4	2.7	1.2	0.8
Supplier	10.2	5.3	77.5	90.3	10.8	3.7	1.5	0.8
Community Group	14.2	5.2	71.2	89.6	13.5	4.4	1.1	0.8
Any other source	8.0	3.5	78.4	90.9	12.0	4.2	1.6	1.4
School aged children	3.3	2.0	85.4	95.0	9.9	2.2	1.5	0.8

* ordered by Phase II percentages

** source had significant increase from Phase 1 to Phase 2 using Bonferroni adjustment

As shown in Table 1, the most exposure is reported through agricultural associations, conversations with friends, neighbors, and coworkers, Radio and TV, and a USDA employee or literature. An increase in exposure to publicity via the radio or TV was the only change in publicity that was statistically significant, with an 18% increase between October 2002 and March 2003.

It is interesting that between Phase 1 and Phase 2, there is a decrease in the percentage of respondents who saw or heard Census publicity for some of the sources listed. This can possibly be attributed to respondents in Phase 1 believing that they heard about the Census, but not being able to pinpoint where. In many cases, they probably didn't hear about the 2002 Census of Agriculture directly, but heard something similar. After all, the publicity for the

Census didn't begin until after the Phase 1 Survey was complete. On the other hand, during Phase 2, respondents had probably heard the publicity recently and could identify exactly what they heard and where they heard it.

Also, notice that there is a much higher incidence of respondents saying they "don't know" where they saw or heard the publicity in Phase 1 than there is in Phase 2. Again, in Phase 1, respondents probably thought they saw or heard something, but when asked specifically, could not answer accurately.

In addition to the source of information, respondents were also asked about the material that they saw or heard about the Census from. These materials and the percentages of operators who reported seeing or hearing them is shown in Table 2.

Table 2: Materials that respondents saw or heard

What type of material did you see that informed you about the 2002 Census of Agriculture?*	Response							
	Yes		No		Don't Know		No Answer	
	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II
	-----percent-----							
Questionnaire	NA	56.5		38.3		4.1		1.2
Ad or article in a newspaper or publication	46.1	41.3	41.4	54.6	11.0	3.0	1.5	1.1
Word of Mouth	NA	31.7		64.7		2.7		1.0
Broadcast	NA	27.7		68.3		3.0		1.0
Bookmarks, brochures, census information cards	22.6	17.0	62.5	78.4	13.5	3.6	1.5	1.1
Poster	6.9	8.9	78.4	86.5	13.2	3.5	1.5	1.1
Internet	NA	6.3		90.0		2.6		1.1
Exhibit booth	7.2	5.5	79.8	90.9	11.5	2.5	1.5	1.1
Other material	13.8	3.7	69.6	89.8	14.8	5.3	1.9	1.2
Speech or presentation	6.5	2.9	80.7	93.6	11.4	2.4	1.5	1.1

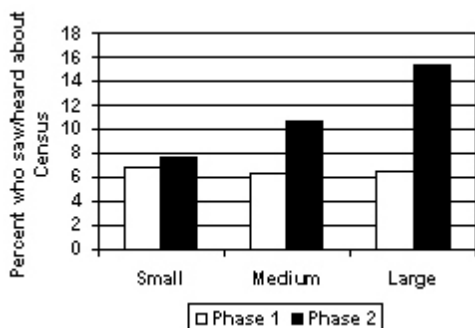
* ordered by phase 2 percentages

After the implementation and analysis of Phase 1, several answer categories were added to this question. The Internet, Word of Mouth, and Broadcast were all added based on responses to Phase 1. In addition, the answer category of "Questionnaire" was added so that interviewers and respondents could distinguish between true publicity exposure and just receiving the questionnaire in the mail.

Table 2 shows that the materials that respondents saw or heard about the Census the most were advertisements or articles in newspapers or publications, word of mouth, and broadcasts.

Exposure to the Census publicity differed by strata. The public relations and promotion campaign reached larger operations at a higher rate than small and medium operations. This is shown in Figure 1.

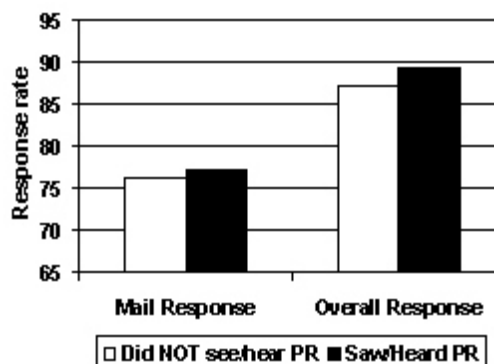
Figure 1: PR Exposure by Strata



3.1. IMPACT ON CENSUS RESPONSE RATES

One of the main reasons to conduct the Publicity campaign for the Census was to increase response rates. Because we have the actual Census data from the 2002 Census of Agriculture, we can compare the responses operators gave on the PR Surveys to their behavior on the Census. On the PR survey, we asked respondents if the information they saw or heard would impact their decision to return the Census form. Sixty one percent of the respondents who saw or heard something said it would make them more likely to return the form. In fact, we do see a marginal increase in the Census response rate for those people who saw or heard something when compared to those who did not see anything. This is shown in Figure 2.

Figure 2: Did PR Exposure Effect Response Rates?



Next, the different sources of exposure were analyzed to determine if certain sources were more effective than others at gaining Census cooperation. These results are shown in Figure 3. Given that a small percentage of respondents reported exposure to Census PR, only variables that had at least 30% exposure are shown in Figure 3.

Figure 3: Census Mail Response Rates by the Source of PR exposure

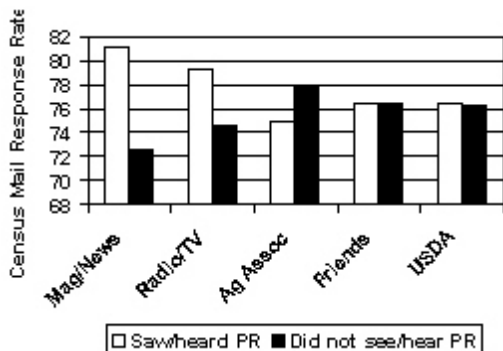
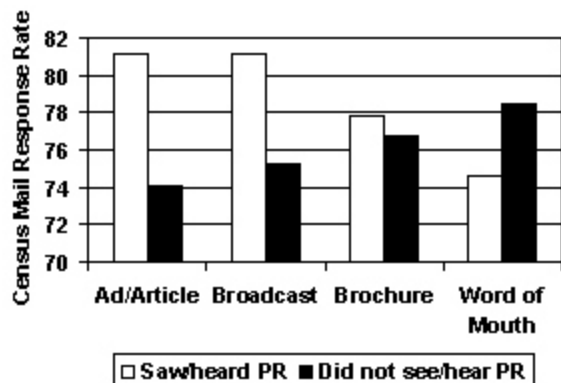


Figure 3 shows that media sources like magazines, newspapers, radio and TV were the most effective sources used for PR as a tool to increase response rates. Also of interest were the materials that respondents saw or heard and their impact on Census response rates. Figure 4 shows the materials that had at least 15% exposure by respondents.

Figure 4: Census response rates by PR materials



Notice that relying on word of mouth may decrease your response rate!

4. SUMMARY

Overall, the Census of Agriculture Publicity campaign had low exposure to farm and ranch operations. However, there is an increase in both the mail and overall response rates for those who saw or heard something about the Census of Agriculture over those who didn't. Since the Census is mailed to over 2 million farm and ranch operations, and all non-respondents are followed up with additional mailings, a telephone followup or personal visit with an interviewer, even a small increase in the mail response rate could lead to a huge data collection cost savings.

The PR campaign reached larger operations at a higher rate than small and medium operations. This makes sense given that the larger operations are more likely to make their entire living from farming while small and medium farms may be more likely to have off-farm jobs.

Media sources and materials are promising as a way to get publicity about the Census of Agriculture out to potential respondents. These sources are currently not used very often because they are traditionally expensive and require media expertise that is not readily available at NASS. However, if they are able to generate better mail return rates, they could ultimately make data collection for the Census cheaper. Further investigation of media outlets could yield positive results in future data collection years for the Census.

5. IMPLICATIONS

The PR campaign did not have a specific budget dedicated to it. Based on the results of the PR Surveys, more resources and money may be allocated to publicity and public relations. Presumably, if we increase the budget for publicity, we will be able to reach more operators with positive, effective messages about the Census of Agriculture.

In addition, an increased focus may be placed on media outlets as a means of getting publicity information out to the agricultural operations it targets. These sources seem effective at not only getting the publicity noticed, but having a positive impact on Census response.

6. REFERENCE

McCarthy, Jaki Stanley, Kathleen Ott and Jay V. Johnson. Survey Participation and Survey Sponsorship: What do our Respondents Think of Us and Should We Care? NASS Research Report #RD-00-04, August 2000.