

*Request for Non-Substantive Change to the 2014 American Community Survey
U.S. Census Bureau*

*Improving the Efficiency of the CATI Operation by Utilizing Phone Tree in
ACS-CATI Non-Response Follow-up
8/22/13*

The Census Bureau is submitting this non-substantive change request to OMB for its review and approval to improve the efficiency of the Computer Assisted Telephone Interviewing (CATI) operation by utilizing a computerized auto-dialer to deliver a pre-recorded message to CATI eligible households. This auto-dialer will identify invalid telephone numbers associated with addresses in our survey sample prior to CATI interviewers attempting to contact these households, and therefore lower the cost and improve the efficiency of the CATI operation.

Summary

Phone Tree utilizes a computerized auto dialer to deliver a pre-recorded message. Automated calls made by Phone Tree identify when the phone number dialed is invalid for various reasons, such as no signal detected after dialing, disconnected phone numbers, phone number has been changed, etc. In our application of Phone Tree, sample addresses with valid phone numbers receive a short message reminding them to complete the American Community Survey (ACS).

This Phone Tree project will allow us to eliminate invalid phone numbers prior to CATI and measure the effect on CATI workloads, costs, and staffing. In addition, the project will help to determine if an automated call placed to CATI eligible households during the self-response period provides a boost in self-response via mail or Internet.

Background

The CATI operation consists of addresses without a response to the ACS after several contact attempts by mail and for which we have at least one phone number. Based on 2013 results, we estimate that about 97,000 addresses each month are eligible for CATI nonresponse follow-up. We identify multiple phone numbers for some of these addresses resulting in about 108,000 total

phone numbers available for use in CATI. Of this workload, approximately 42 percent of the cases have final dispositions indicating that the phone number was invalid. The Census Bureau's call center telephone interviewers currently identify these invalid phone numbers when they attempt to contact the occupants of non-responding addresses to complete the ACS questionnaire by telephone.

This project will screen out most of these invalid phone numbers prior to sending each month's CATI workload to the telephone centers for interviewing, therefore reducing the CATI workload and improving the proportion of cases with a valid phone number. We expect this to make the CATI operation more cost effective and efficient.

Procedure

This project will utilize Phone Tree to conduct automated calls on the November 2013 CATI NRFU production workload. Phone Tree will contact sample addresses over a two-day period during October 2013.

Phone Tree will utilize a computerized auto-dialer to deliver a pre-recorded message (Attachment A) using the following guidelines:

- Phone Tree will call each phone number once
- Each phone call will take approximately 30 seconds
- We will schedule these calls between 9:00 am – 9:00 pm, respondent time zone

Given our workload, we estimate that Phone Tree will complete all calls in two days. After all phone calls are completed, the Phone Tree software provides the outcome or status for each phone number called. We will eliminate the phone numbers with the statuses that Phone Tree determined to be "invalid" phone numbers from the November 2013 CATI NRFU production workload. The resulting CATI workload for the November CATI NRFU operation will consist of addresses containing only validated phone numbers.

By providing an additional reminder to ACS sample households to complete the survey, the Phone Tree operation may also increase self-response by the paper or Internet modes of data

collection. We will monitor any impact on these rates for the addresses contacted by Phone Tree.

Estimate of Burden Hours

There will be no additional respondent burden since the pre-recorded message is comparable to other attempts we make to contact the household.

Project Schedule

Below are key dates and milestones:

Task	Duration	Start	Finish
Initial mailing for the October mail panel (These will be eligible for November CATI operation)	1 days	Mon. 9/23/13	Mon. 9/23/13
Replacement mailing for the October mail panel (These will be eligible for November CATI operation)	1 days	Thurs. 10/10/13	Thurs. 10/10/13
Phone Tree Calling for the October mail panel (These will be eligible for November CATI operation)	2 days	Tues. 10/22/13	Wed. 10/23/13
Receive and Process phone tree output file	1 day	Thurs. 10/24/13	Thurs. 10/24/13
Finalize CATI workload	2 days	Mon. 10/28/13	Tues. 10/29/13
Begin CATI interviewing for the October mail panel (November CATI operation)	24 days	Fri. 11/1/13	Sun. 11/24/13

Cost to Federal Government

The estimated cost to the Federal Government to conduct this project is \$5,987. The Census Bureau is bearing this cost. We anticipate savings in the CATI operation will offset these costs as

a result of the reduction of CATI staff hours that the call center staff will not be dialing and assigning disposition of cases with invalid phone numbers.

Evaluation

ACSO staff plan to answer the following research questions as part of the evaluation of this project:

1. How many CATI-eligible addresses have at least one telephone number before and after the addition of the CARRA telephone numbers, and before and after the PhoneTree operation?
2. Which telephone number sources give us the most telephone numbers and addresses with telephone numbers, before and after the PhoneTree operation?
3. Which telephone number sources are best at identifying phone numbers that other sources do not have? What are the combinations of sources that have each particular phone number for an address?
4. What is the relationship between the result of the PhoneTree operation and the result of CATI nonresponse interviewing?
5. What is the relationship between the result of the PhoneTree operation and self-responses after the PhoneTree calls?

Contact

For questions on the Phone Tree project, please contact Todd Hughes (301-763-6686 or Todd.R.Hughes@census.gov) of the American Community Survey Office at the Census Bureau.

List of Attachments

Attachment A - Text for the recorded message

Attachment A

Hello, I'm calling from the U.S. Census Bureau to remind you to complete the survey that we recently mailed you. Please respond online or fill out the paper form. Your participation can help your community get the services it needs. Thank you.