



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Bureau of the Census**  
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MEMORANDUM FOR      Distribution

From:                      Cynthia Clark  
                                 Associate Director for Methodology and Standards

Subject:                    Evaluation of the Quality Assurance Falsification  
                                 Model for the Integrated Coverage Measurement  
                                 Person Interview

I am pleased to present the executive summary of one of the evaluation studies for the Census 2000 Dress Rehearsal. The dress rehearsal was conducted in three sites — Columbia, South Carolina; Menominee County, Wisconsin; and Sacramento, California. The evaluation studies cover detailed aspects of eight broad areas related to the census dress rehearsal — census questionnaire, address list, coverage measurement, coverage improvement, promotion activities, procedures addressing multiple options for census reporting, field operations, and technology.

The executive summary for each evaluation study is also available on the Census Bureau Internet site (<http://www.census.gov/census2000> and click on the link to “Evaluation”). Copies of the complete report may be obtained by contacting Carnelle Sligh at (301) 457-3525 or by e-mail at [carnelle.e.sligh@cmail.census.gov](mailto:carnelle.e.sligh@cmail.census.gov). Please note that the complete copy of the following reports will not be publically released: reports regarding procedures addressing multiple options for census reporting and the Evaluation of Housing Unit Coverage on the Master Address File.

The evaluations are distributed broadly to promote the open and thorough review of census processes and procedures. The primary purpose of the dress rehearsal is to simulate portions of the environment we anticipate for Census 2000, so we can identify and correct potential problems in the processes. Thus, the purpose of the evaluation studies is to provide analysis to support time critical review and possible refinements of Census 2000 operations and procedures.

The analysis and recommendations in the evaluation study reports are those of staff working on specific evaluations and, thus, do not represent the official position of the Census Bureau. They represent the results of an evaluation of a component of the census plan. They will be used to analyze and improve processes and procedures for Census 2000. The individual evaluation recommendations have not all yet been reviewed for incorporation in the official plan for Census 2000. These evaluation study reports will be used as input to the decision making process to refine the plans for Census 2000.

The Census Bureau will issue a report that synthesizes the recommendations from all the evaluation studies and provides the Census Bureau review of the dress rehearsal operation. This report will also indicate the Census Bureau’s official position on the utilization of these results in the Census 2000 operation. This report will be available July 30<sup>th</sup>.

# Evaluation of the Quality Assurance Falsification Model for the Integrated Coverage Measurement Person Interview

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Elizabeth A. Krejsa  
Planning, Research, and  
Evaluation Division

## EXECUTIVE SUMMARY

As part of the Integrated Coverage Measurement/Post Enumeration Survey operation a personal interview was conducted. To ensure that the data collected were valid, a quality assurance reinterview was done. The purpose of the quality assurance reinterview was to determine if falsification (making up interview data) by the field representative had occurred during the original person interview. A person interview case was sent to quality assurance reinterview in one of two ways. The case was:

- 1) selected as part of a five percent systematic sample or
- 2) targeted based on predetermined criteria.

Targeting refers to the identification of cases that are possibly falsified or of poor quality and sending such cases to quality assurance reinterview. Three targeting reports were developed to assist the quality assurance staff in selecting targeted cases. The three targeting reports are the Field Representative Outlier Report, the Respondent Name Report, and the Not Enough Quality Assurance Cases Report.

The Field Representative Outlier Report identifies field representatives who are outliers for a number of variables possibly related to falsification and data quality, such as missing respondent phone numbers or partially completed interviews. The Respondent Name Report enables the quality assurance supervisor to browse the entries for respondent names entered by each field representative. The aim is to look for indications of possible falsification, such as names of famous characters/people or multiple respondents with the same name. The Not Enough Quality Assurance Cases Report enables the quality assurance supervisor to identify field representatives who have completed and sent back at least ten person interviews but have no cases in quality assurance.

The purpose of this evaluation is to determine whether the targeting procedure identifies significantly more falsified cases than the systematic sample and to determine if the current targeting model and targeting procedures should be changed.

### Conclusions and Recommendations

- In general, the quality assurance reports were effective in targeting cases for quality assurance reinterview compared to the systematic sample. The confirmed falsification found through the quality assurance process was low ranging from 0% in Menominee, WI and Sacramento, CA to .06% of the total person interview cases in the South Carolina site (18,302).
- In all three sites, targeting identified a nominally higher percentage of falsified cases than systematic sampling. The difference is significant in South Carolina. There is additional cost associated with reviewing the targeting reports to identify cases for quality assurance reinterview. However, had targeting not been conducted, the systematic sample size of five percent would more than double in order to detect falsification thus increasing quality assurance interviewer costs beyond the costs of the review of the targeting reports. Therefore, targeting should continue.

- The following changes to the quality assurance model are recommended:
  1. The “Missing Phone Number” variable of the outlier report should take into account phone numbers that were blank as well as any phone number less than ten digits in length. Invalid phone numbers defined by area codes beginning with a ‘0’ or ‘1’ should also be accounted for.
  2. Remove the “Missing Outmover” variable from the outlier report if no other operational considerations exist to leave it in.
  3. Remove the “Days with more than 13 interviews” variables from the model if no other operational considerations exist to leave it in.
  4. Add a “Missing Respondent Name” variable to the outlier report or instruct supervisors to check for missing (blank) respondent names on the Respondent Name Report.
  5. Modify the “Length of Interview” category so that interviews that are less than two minutes are sent to quality assurance, instead of interviews that are less than four minutes. (This variable will be removed from the reports for Census 2000 due to problems with the timing variable in the computer instrument.)
  
- The following changes to the quality assurance procedures are recommended:
  1. Quality assurance supervisors should carefully monitor quality assurance field representatives since there is no quality check on these interviewers.
  2. Specific instructions should be given to the quality assurance supervisors about how to select a case if a field representative has more than one variable flagged on the targeting reports. Supervisors should continue to send at least one case for each flagged variable as well as any case that is flagged for all variables. For example, if the ‘case completed between 10 p.m. and 8 a.m.’ and the ‘case without a phone number’ variables are flagged as outliers, the quality assurance supervisor should send at least one ‘completed between 10 p.m. and 8 a.m.’ case, one ‘missing phone number’ case, and any case that is both conducted between 10 p.m. and 8 a.m. and missing a phone number.
  3. After the reinterview is conducted cases suspected of falsification are returned to the quality assurance supervisor for confirmation of falsification. For accurate analysis, a variable to record the quality assurance supervisor’s decision regarding confirmed falsified cases should be created.

