



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: Management Study of Nonresponse Followup- Use of the Simplified
Enumerator Questionnaire in the Census 2000 Dress Rehearsal
(Motion and Time Study)

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. 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 30th.

Management Study of Nonresponse Followup- Use of the Simplified Enumerator Questionnaire in the Census 2000 Dress Rehearsal (Motion and Time Study)

April 1999

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Financial and Administrative
Systems Division

Executive Summary

The Planning, Research, and Evaluation Division requested the Financial and Administrative Systems Division to conduct an evaluation of the use of the Simplified Enumerator Questionnaire in the 2000 Census Dress Rehearsal. This evaluation consists of a motion and time study to estimate the average time enumerators spend completing Short Form, DX-1 (E) and Long Form, DX-2 (E) cases, observing interviews to note lapses in procedures, and briefly interviewing the enumerators about use of the questionnaires and work habits. The evaluation is to answer specific questions about enumerators' adherence to procedures, and questionnaire wording.

Observers from the Financial and Administrative Systems Division observed Nonresponse Followup during the 2000 Census Dress Rehearsal at:

Sacramento, California
Columbia, South Carolina
Menominee American Indian Reservation, Wisconsin

Observers used the motion and time study technique. They recorded the number of living quarters visited, interviews completed, addresses deleted, visits, flash card use, asking coverage questions, continuation form use, and following skip instructions. They briefly interviewed each enumerator observed and completed diary forms recording events and factors affecting each enumerator's performance and productivity.

From the Financial and Administrative Systems Division interviews of enumerators, most of those responding said the continuation form was easy to use. The observers commented in their diaries that enumerators completed the address label geocoding entries at home or with their crew leader's help.

Relationship, Hispanic Origin and Race Questions, Residence Status

Fifteen relationship categories are on the Dress Rehearsal's simplified enumerator questionnaire. We do not instruct enumerators to read the categories, nor do they have a flash card to show respondents. No enumerator observed read all the relationship categories to respondents. Most of the respondents answered the question readily. If a respondent was unsure about how to describe a relationship, the enumerator might read some relationship categories. Enumerators asked probing questions about relationships when they felt unsure about respondents' answers or to make sure they marked the categories correctly.

Before the Hispanic origin question on the mail form, there is a note to respondents to answer both the race and Hispanic origin question. There is no similar instruction to respondents on the Dress Rehearsal simplified enumerator questionnaire.

Enumerators observed did not ask Race and Hispanic origin questions according to procedures. They did not:

- C Use flash cards for either question.
- C Seldom read the second sentence in either question.

The enumerators observed did, however, read the first sentence of each question as worded and did not lead respondents or assume answers. Instead of showing the flash card they often showed the questionnaire to the respondent.

In Question S3 respondents misunderstood the phrase “temporary residence.” Through direct observation, enumerators reported respondents answering: “Yes, we plan to move next year” or “Yes, we’re leaving when we find something else.” On the Menominee reservation, residents of tribal housing reported their living quarters as temporary residences since they were renting. One respondent reported his house as a seasonal or vacation home although he lived there permanently, since the house was a “vacation cottage.”

To avoid problems with the “temporary residences” enumerators in Sacramento often asked, “Is this your regular residence” or “permanent residence?”

Coverage Questions

Time study observers saw seven cases where the enumerator changed the roster because of the coverage questions. They made the changes correctly.

Two coverage questions are on the simplified enumerator questionnaire; the coverage questions are:

“Did we miss anyone who lived or stayed here on April 18, 1998, such as, people with no other home, young children, or people away on business or on vacation?”

and

“The Census Bureau has already counted people living away in the military, at college, and in such places as a nursing home or correctional facility. Were any of the people you mentioned today staying at these types of places on April 18?”

Enumerators generally asked the Coverage questions as worded. Reworded versions obtained correct answers to the questions. Enumerators who reworded questions, based rewording on answers to the household roster and respondents comments on relationships, household membership, and residence. Of the 195 interviews observed, enumerators changed the household roster in seven or 3.6 percent of cases because of coverage questions.

Skip Instructions, Topic-Based Format, Use of Flash Cards

The Dress Rehearsal simplified enumerator questionnaire includes enumerator instructions indicating that they should only ask a particular question if the person is a certain age. When interviewed, enumerators said those skip instructions were not a problem for them. Observers also noted that enumerators sometimes overlooked the skip instructions in Question 25a-e, which concern unemployment. Only one enumerator observed missed the age skip instruction in item 18.

Enumerators followed the topic-based format in asking for the names and relationships of persons and for the other questions on the short form. Respondents frequently volunteered relationships as part of listing persons. Respondents also answered Questions P4, Hispanic Origin, and P5, Race for the entire household when enumerators asked the questions for Person 1. Respondents' answers and reactions frame the interview structure. The short form questions are simple and repetitive for each person listed. If the respondent reads over the enumerator's shoulder as he or she asks the questions, the respondent may take the lead by answering all the questions for one person at a time.

There are simplified enumerator questionnaire flash cards for eight content questions in Dress Rehearsal. These questions are race, Hispanic origin, education, military service, type of employer, housing type, fuel and housing value. Enumerators did not use the flash cards as frequently as the job aid instructs. Many showed the respondent the questions on the questionnaire instead. Enumerators believed showing the respondent the questionnaire and the entries they were making increased respondent cooperation. In the Financial and Administrative Systems Division interviews, about half the enumerators observed reported they used flash cards.

Time

In the introduction section for the short and long form simplified enumerator questionnaires, the enumerator reads an estimate of the length of time it usually takes for the interview. These estimates are 7 and 30 minutes for the short and long form respectively. The motion and time study show average interview times for a short form of 5.15 minutes and 26.42 minutes for a long form during the Census 2000 Dress Rehearsal.

Average estimates of production in minutes per completed questionnaires for the enumerators observed at the 85 percent performance level, which the Financial and Administrative Systems Division recommends for planning and budgeting purposes, were:

C	Sacramento, CA	35.62 minutes
C	Columbia, SC	35.61 minutes
C	Menominee, WI	51.80 minutes

This rate includes travel time and a 15 percent allowance for personal time, fatigue and delays.

Our recommendations include:

- C Give a comprehensive example for completing the address labels for continuation forms. Enumerators did not have a good example to follow.
- C Laminate Hispanic origin and race flash cards on the back of the enumerator clipboard to make it easier for enumerators to show the cards and ask the questions exactly as worded. Cards were on the clipboards in the 1996 Community Census and were effective.
- C Emphasize the skip instructions for Question 25a-e in enumerator training.
- C Reword Question S3, of the introduction. Respondents misunderstood the version used in the 2000 Census Dress Rehearsal.
- C Change the interview time in the introduction statement to 5 minutes for the short form interviews. Leave the long form interview time at 30 minutes.