

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**U.S. Census Bureau**  
**2010 Census Coverage Measurement Person Followup and Person Followup Reinterview**  
**Operations and Respondent Debriefings**  
**OMB Control # 0607-XXXX**

**B. Collections of Information Employing Statistical Methods**

**1. Universe Selection**

**Person Followup**

The 2010 Census Coverage Measurement (CCM) sample design was developed to produce a general-purpose sample to support the various objectives of the program, which includes the new objective of estimating erroneous enumerations and omissions in addition to net error for the 2010 Census. The CCM is designed to measure the coverage of housing units and persons, excluding group quarters and persons residing in group quarters. Remote areas of Alaska are out-of-scope for CCM.

The CCM Operation sample is a multi-phase probability sample of housing units comprising a number of distinct processes from forming block clusters, selecting sample block clusters where the CCM survey will be conducted, to eventually selecting addresses for interviewing. Two samples will be selected to measure census coverage of housing units and the household population: the population sample (P sample) and the enumeration sample (E sample). The P sample is a sample of housing units and persons obtained independently from the census for a sample of block clusters, while the E sample is a sample of census housing units and enumerations in the same block cluster as the P sample.

The independent roster of housing units is obtained during the CCM Independent Listing Operation, the results of which will be matched to census housing units in the sample block clusters and surrounding blocks. After the CCM Independent Listing and matching operations have taken place, some cases with discrepancies between the CCM Independent Listing and the Census will be identified and receive the CCM Housing Unit Followup Interview. The results of this interview will again be matched to the list of census housing units. The results of the housing unit matching operations will be used to determine which CCM and Census addresses will be eligible to go to the CCM Person Interview (PI) Operation. After person data collected from the PI operation is matched to data collected by the census

enumeration in the CCM sample areas, certain cases with discrepancies between the CCM PI and Census will be sent for another CCM interview called the Person Followup (PFU) – see below. For each case identified during matching, we will conduct a CCM PFU for selected persons in the household. A separate Federal Register Notice has already been issued for the CCM Independent Listing, CCM Housing Unit Followup, and CCM PI operations.

#### Cases Selected for Person Followup

- 1Possible matches (P- or E-sample).
- P-sample partial household nonmatches with a proxy respondent in the PI.
- P-sample whole household nonmatches with a proxy respondent in the PI and either no people in the matching census unit or no matching census unit.
- The following addresses will be flagged for a geocoding check (if the geocoding is correct, the PI results will be retained):
  - P-sample whole-household nonmatches in clusters with a high rate of P-sample person nonmatches (more than 45 percent)
  - P-sample whole-household nonmatches where the PI interviewer changed the sample address
- Inmovers with ungeocoded inmover addresses (regardless of match status).
- Conflicting households (nonmovers or outmovers in the P sample with completely different rosters in the census and PI).
- Unclassified P- or E-sample people who are not duplicates, regardless of match status.
- P-sample people with a proxy respondent in the PI who are identified as match or possible match in the nationwide computer matching (followup at the sample address).
- Census people who match or possibly match to P-sample people in the nationwide computer matching.
- E-sample nonmatches.
- E-sample whole household nonmatches that were not included in initial housing unit matching.
- E-sample people who are a duplicate or possible duplicate to a person identified in the nationwide computer matching if there are no PI results or if there was a proxy respondent in the PI.
- People identified in the nationwide computer matching who are duplicates or possible duplicates to E-sample people.
- Any case sent to PFU by an analyst.
- P-sample possible duplicates within the sample block cluster.
- E-sample possible duplicates within the sample block cluster/surrounding blocks (at least one of the pair is an E-sample person).
- Inmovers who don't match at their Census Day (inmover) address, with a PI proxy respondent.

## **Person Followup Reinterview - Quality Control**

The PFU Reinterview (PFU RI) universe will consist of a random sample that is approximately 15 percent of the original PFU enumerator workload (approximately 11,004 cases).

### **Response Rate**

The Census Bureau expects a response rate of 85-90 percent for both the PFU and PFU RI. This response rate includes the use of proxy respondents after six attempts to contact a household member.

The PFU operation is not meant to complete additional interviews or obtain characteristics missing from prior complete interviews. Instead, its purpose is to obtain missing information or resolve conflicting information concerning the PI interview-day and census-day status (eg. residence status or match status) of people interviewed in the earlier Person Interview (PI) operation, or the enumeration status (eg. correct or erroneous enumeration) of relevant census records. We treat noninterviews from the PI through a noninterview adjustment to the weights of cases with completed interviews, and missing characteristics following the PI through an editing and imputation operation. For cases with a status that remains unresolved following PFU, we impute a probability of that status through regression modeling (for estimation of net error) or cell imputation (for estimation of components of census coverage).

### **Respondent Debriefings**

Respondent debriefings are to be conducted for a CCM evaluation. For this, experts in Census Residence Rules will accompany an interviewer and observe CCM PI or PFU interviews with respondents at their homes. Approximately 220 interviews will be observed. Respondent debriefings will be conducted at approximately 110 households (80 PI households and 30 PFU households). Additionally, with respondent permission, experts plan to audiotape all 220 interviews and all debriefings.

## **2. Data Collection**

### **Person Followup**

During PFU, interviewers use a paper data collection instrument to obtain information about the people selected for followup.

### **Person Followup Reinterview**

For the PFU RI operation, cases will be selected from the PFU work as it is returned. Cases are eligible for reinterview if the PFU outcome was complete or partial, if there was only one

respondent for the case (either a household member or a proxy), and if the case was not observed by a Crew Leader.

We will select cases systematically within each enumerator's workload, starting with one of the first three cases they complete that is eligible and every 7th case thereafter (a 15 percent random sample). We also allow up to 1 percent of supplemental reinterview cases. As a result, each enumerator will have about 15 percent of their workload reinterviewed.

After PFU RI cases are selected, the case is made available to the Regional Office for assignment to a reinterviewer. The reinterviewer will complete the PFU RI questionnaire with the original PFU respondent or a new respondent. Reinterviews can be done by telephone or personal visit. The reinterview questionnaire will collect information about whether the original respondent was contacted. If the original respondent was not contacted, the reinterviewer will conduct a new PFU interview for that case.

### **Respondent Debriefings**

For the purpose of the CCM Respondent Debriefing evaluation, an expert in Census Residence Rules will accompany an interviewer and observe either a CCM PI or a PFU interview with a respondent at their home. Immediately after the interview concludes, the expert can ask the respondent a few more questions to confirm or clarify the residence status of individuals. Experts write up a summary of the living situation for each person in each case where a debriefing occurred. Experts will audiotape all observed interviews and all debriefings where respondent permission is given.

### **3. Methods to Maximize Response**

The PFU and PFU RI questionnaires contain the minimum number of questions necessary to obtain the data required for the 2010 CCM, and the interviewer will make multiple contact attempts in order to obtain an interview (PFU - six attempts by personal visit interviews unless a telephone interview is requested, PFU RI – six attempts by phone over three days followed by six attempts by personal visit over three days). The interviewer will explain the reason the Census Bureau is conducting this operation, and respondents will be informed of their legal responsibility to answer the questions. In addition, respondents will be assured that their answers are confidential.

The respondent debriefings are conducted by an expert who will ask the fewest questions necessary to confirm or clarify the residence status of individuals. Respondents will be assured that these answers are also confidential.

### **4. Testing of Procedures**

The Census Bureau developed the CCM approach for measuring the coverage of the population in the decennial census. It was used in the 2000 Decennial Census, and the approach was updated and refined for the 2006 Census Test and the 2008 Census Dress Rehearsal. PFU was tested during the 2006 test; however, it was dropped from the Dress Rehearsal due to budget cuts. Instead, two PFU Operational Tests were conducted in 2009 in areas around Washington, D.C., in Louisville, KY, and in Nassau County, New York. Census headquarters employees unfamiliar with the PFU operation acted as interviewers. Interviewers were paired with someone familiar with the PFU questionnaire and goals of the operation. These observers helped identify what went well and identified areas of concern with the form, training, or materials. The questionnaire developed for the second operational test is the basis for the 2010 PFU questionnaire. (See Attachments G-I for PFU results.)

Respondent debriefing procedures were previously used in the 2006 CCM PI and PFU operations. No changes have been made to the procedures for 2010. (See Attachment G for PFU results.)

## **5. Contacts for Statistical Aspects and Data Collection**

Gia Donnalley  
Coverage Measurement Design for Data Collection Operations Branch Chief  
Decennial Statistical Studies Division  
(301) 763-4370

### ***Definition of Terms***

#### *Components of Census Coverage*

The four components of census coverage are census omissions (missed persons or housing units), erroneous enumerations (persons or housing units enumerated in the census that should not have been), correct enumerations, and whole-person imputations (census person enumerations on which we did not collect sufficient information). Examples of erroneous inclusions are: housing units built after Census Day and persons or housing units enumerated more than once (duplicates).

#### *Net Coverage Error*

<sup>1</sup>This is the difference between the estimate of the true population count and the actual census count.

## **List of Attachments**

### **Attachment A – Introductory Letter**

See Separate File ATTACHA - PFU Introductory Letter.doc

### **Attachment B - D-1301, Person Followup Questionnaire**

See Separate File ATTACHB - PFU questionnaire.pdf

### **Attachment C - D-1301.2, Person Followup Reinterview Questionnaire**

See Separate File ATTACHC - PFU RI form.pdf

### **Attachment D – Respondent Debriefing Probes**

See separate file ATTACHD - Respondent Debriefing Probes.doc

### **Attachment E – Field Tape Recording Instructions**

See separate file ATTACHE - Field Tape Recording Instructions.doc

### **Attachment F - D-1301, Person Followup Questionnaire, Puerto Rico**

See Separate File ATTACHF - PFU questionnaire PR.pdf

### **Attachment G – 2006 PFU Results**

See Separate Files ATTACHG1 – 2006 PFU Results.doc and ATTACHG2 – 2006 PFU Results Attachment.pdf

### **Attachment H – 2009 PFU Operational Test 1 Results**

See Separate Files ATTACHH1 – 2009 PFU Results1.doc and ATTACHH2 – 2009 PFU Results 1 Attachment.pdf

### **Attachment I – 2009 PFU Operational Test 2 Results**

See Separate Files ATTACHI1 – 2009 PFU Results2.doc and ATTACHI2 – 2009 PFU Results 2 Attachment.pdf