

SUPPORTING STATEMENT
U.S. Department of Commerce
U.S. Census Bureau
2013 Census Test
OMB Control Number 0607-~~XXXX~~
Part A – Justification

Question 1. Necessity of the Information Collection

In preparation for the 2020 Census, the Census Bureau is testing strategies to decrease nonresponse follow-up (NRFU) workload and contact strategies to decrease the cost of NRFU. This test will pilot the use of administrative records and different contact strategies to reduce the NRFU workload and increase NRFU efficiency.

The test will use current Census infrastructure to research removing households from the NRFU interviewer workload using administrative records. It will also try two contact strategies for attempting in-person interviews: 1) an adaptive contact strategy, which uses frame data (including administrative records) and contact history data to direct the scheduling of interview attempts, versus 2) a “fixed” contact strategy, which puts a cap on the number of contacts but does not specify for interviewers when they should take place. Finally, the test will pilot the use of two different ways of attempting interviews by telephone – a centralized call center approach vs. a dispersed approach.

This is an operational test: It aims to provide insight into the workings of novel procedures applied for the first time in the field. It will inform the use of administrative records and NRFU contact strategies tested during the 2020 Research and Testing Program. The results from this pilot study are necessary to reduce the risks associated with a larger scale implementation of these methods, which is planned for the 2014 Census Test.

The 2013 Census Test involves 2,000 housing units in the Philadelphia metropolitan area. A NRFU data collection environment will be simulated using information from the 2010 census. Specifically, the sample will consist of housing units that did not mail back a self-response form during the 2010 decennial census, identified from the 2010 census NRFU universe. In order to save time and money, the test does not contain a self-response component. Data collection will begin in October 2013 and end in November 2013.

Housing units will be randomly assigned to four treatments:

- (Treatment 1) use of administrative records to reduce workload and a fixed contact strategy;
- (Treatment 2) no use of administrative records to reduce workload and a fixed contact strategy;
- (Treatment 3) use of administrative records to reduce workload and an adaptive contact strategy;
- (Treatment 4) no use of administrative records to reduce workload (records used only to prioritize cases) and an adaptive contact strategy.

The Census Bureau will mail all housing units a prenotice letter two weeks before the start of data collection, alerting residents about the upcoming study. In the treatments in which administrative records are employed to reduce workload (Treatments 1 and 3), the Census Bureau will remove housing units from data collection whose prenotice letters are not returned with “undeliverable as addressed” United States Postal Service information and which have record evidence of occupancy. These housing units will be classified as “occupied” for purposes of the study. In these treatments, the Census Bureau also will remove housing units from data collection whose prenotice letters are returned with “undeliverable as addressed” United States Postal Service information and which have no other record evidence of occupancy. These housing units will be classified as “vacant” for purposes of the study.

The Census Bureau will not employ administrative records to reduce workload in Treatments 2 and 4. Instead, administrative records will be employed to prioritize cases for contact in the adaptive design condition (Treatment 4), and there will be no use of records in Treatment 2.

The Census Bureau will attempt to match NRFU housing units to cell and landline telephone numbers. In the fixed contact strategy treatments, the Census Bureau will instruct computer-assisted personal interviewing (CAPI) interviewers to make two telephone calls to housing units before performing personal visits. Interviewers will attempt up to three in-person contacts for sampled housing units not reached by telephone. Interviewers will attempt to contact housing units without telephone numbers via personal visits. If an interviewer cannot complete an interview after three in-person contact attempts, they will be instructed to obtain a proxy interview.

In the adaptive contact strategy treatments, the Census Bureau will send telephone numbers matched to sampled addresses to a computer-assisted telephone interviewing (CATI) operation where interviewers will attempt interviews for two weeks. At the end of these two weeks, nonresponding CATI cases will be transferred to CAPI interviewers who will attempt personal visits. (Housing units without telephone numbers will be sent immediately to CAPI interviewers during these two weeks). CAPI interviewers in the adaptive contact strategy treatments will be informed on a daily basis which cases are priority for contact and when to perform proxy interviews, as determined by response likelihood models.

In order to conserve resources, the Census Bureau will use existing staff and office infrastructure for this test. Where necessary, the Census Bureau will modify existing systems and field procedures.

Question 2. Needs and Uses

The U.S. Constitution gives the Census Bureau the authority to enumerate the U.S. population every ten years. In 2010, the Census Bureau encouraged housing units in areas that received a mailed 2010 Census form to fill out and mail back this Census questionnaire. In total, 47,197,405 housing units did not mail back their form and were included in NRFU, which employed enumerators to obtain information from each occupied housing unit included in the NRFU workload. This activity cost \$1,589,397,886.

Title 13 U.S.C. Sections 141 and 193 of the U.S. Code gives the Census Bureau the authority to perform the decennial Census and related research studies. The Census Bureau will use the 2013 Census Test to test operational procedures that might increase NRFU efficiency. Secondary goals of the research include gaining an initial measurement of the cost savings associated with using administrative records and an adaptive design contact strategy to enumerate simulated non-responding housing units and measuring the quality of data produced by these approaches.

The primary goal of the test will be to assess whether the Census Bureau can implement a simulated NRFU data collection using different contact strategies and administrative records during production. Thus, the primary goal of the test will be to test operational efficiency.

Operational efficiency will be measured on entire test. The following components of operational efficiency will be tested including the ability:

- to remove cases that use administrative records to reduce the NRFU workload,
- to assign/reassign cases when workload has been reduced using administrative records,
- to staff effectively a field operation after cases are completed by CATI,
- of interviewers to follow instructions provided in case management,
- of interviewers to perform daily manual syncs between their laptops and a central server,
- of a model and set of business rules to produce case priority information on a daily basis, and
- of a centralized paradata repository to receive paradata daily from several systems and transmit data daily to a operations control system,

Secondary goals will measure the cost and data quality between two sets of groups. One analysis will compare cost and data quality between treatments that use and do not use administrative records to reduce the NRFU workload. Another analysis will compare cost and data quality between treatments that use an adaptive contact strategy versus a fixed contact strategy.

Cost will be operationalized in four ways:

- overall cost, which includes the costs of CAPI and CATI interviewers,
- average cost per case,
- average cost per contact attempt, and
- average case completion per contact attempt.

Data quality will be operationalized in four ways:

- item nonresponse rates,
- percent proxy interviews,
- percent partial completes, and
- final response rates

The 2013 Census Test will inform future 2020 Census NRFU tests, which may examine administrative records and NRFU contact strategies in 2014. Data from this study will not be released as Census Bureau data products nor will they be used for official estimates. Rather,

results will aid in determining how to test the use of administrative records and different contact strategies in future, larger tests. Results will also inform the Census Bureau about the infrastructure required to support using administrative records, a centralized CATI system to enumerate a NRFU population and an operational control system (OCS) that enables real-time case prioritization and mode switching.

The Census Bureau plans to make the aggregated results of this study available to the public. Information quality is an integral part of the pre-dissemination review of the information disseminated by the Census Bureau (fully described in the Census Bureau's Information Quality Guidelines). Information quality is also integral to the information collections conducted by the Census Bureau and is incorporated into the clearance process required by the Paperwork Reduction Act.

Data from the test will be included in reports with clear statements about the test's methodology and limitations. Reports will state that the data were produced for decision-making and exploratory research, not for official estimates. Research results may be prepared for presentations at professional meetings or in publications in professional journals to promote discussion within the larger survey and statistical community and to encourage further research and refinement. All presentations or publications will provide clear descriptions of the test's methodology and its limitations.

Question 3. Use of Information Technology

The Census Bureau will test the implementation of three automated, electronic, and technological collection techniques. First, the Census Bureau will test the use administrative records to enumerate housing units, which will reduce burden on housing units for which such records exist. Second, the Census Bureau will test the use of a CATI system to collect survey responses from housing units with telephone numbers. This treatment will be compared to a treatment that uses CAPI interviewers to make telephone calls to housing units with telephone numbers. Third, the Census Bureau will test the use of a statistical model and business rules to indicate to interviewers the cases that should be worked as priority and which cases have the option of being completed by proxy.

In addition to these three techniques, the Census Bureau will use other automated and/or electronic procedures. The Census Bureau will employ CAPI interviewers to perform all personal visits. The Census Bureau will submit landline phone numbers to automated verification before calling respondents, via either a contractor or an internal system, to reduce the number of telephone calls made to nonworking numbers.

Question 4. Efforts to Identify Duplication

The Census Bureau has compared administrative records to information gathered in the 2010 Census and has undertaken a unique effort to match administrative records to housing units (see 2010 Census Match Study Report). However, the study discussed here is the first effort to employ records in a production environment and analyze cost savings of the use of such records. .

The Census Bureau and other government agencies in the United States and in other countries have performed research on using adaptive design approaches to achieve data collection efficiencies. However, this is the first use of such an approach in a quasi-census environment and the first use of such an approach in combination with administrative records.

Although some of this test's design is similar to the American Community Survey (ACS) and other data collections performed by the Census Bureau, this study does not duplicate their efforts. This study is informed by recent ACS research on CATI call parameters, CATI and CAPI outcome and refusal codes, and propensity models developed using Census Bureau current surveys data to inform its design, but it does not duplicate those studies.

Question 5. Minimizing Burden

Small businesses and other small entities are not asked to report information.

Question 6. Consequences of Less Frequent Collection

The data collection described for this test will provide information useful for 2020 decennial census planning and research, including for a larger decennial test currently planned for 2014. For example, this test will examine how to perform case assignments when administrative records enumerate a percentage of the workload. This test will examine the timing of paradata transfers and the reliability of a centralized modeling environment used to produce files that provide daily contact instructions for interviewers on a case-by-case basis. The test will also examine how well interviewers follow contact instructions.

If this test were not to occur, the Census Bureau would risk not being able to compare cost, completion rates, and data quality across treatments in a Census test planned for 2014 due to operational difficulties that this smaller, cheaper 2013 Census Test will identify and address..

Question 7. Special Circumstances

There are no special circumstances.

Question 8. Consultations Outside the Agency

The notice for public comment, entitled, "Proposed Information Collection; Comment Request; 2013 Census Test," was published in the Federal Register on September 6, 2012 (Vol. 77, No. 173, pp. 54887 – 54889). One comment was received on the federal register notice. (See Attachment A.) This person asked the Census Bureau not to perform this research data collection due to the expense. Since the purpose of this test is to develop methodologies to decrease the cost of the 2020 Census, the Census Bureau intends to pursue the test.

Census Bureau researchers associated with this test have performed a literature review of Census reports related to record matching, adaptive design, and 2010 NRFU efforts.

Question 9. Paying Respondents

Respondents will not be paid or provided with gifts for participating in this data collection.

Question 10. Assurance of Confidentiality

In compliance with Title 13 of the United States Code, Section 9, the Census Bureau will keep personally identifiable information collected in this test protected, confidential, and in a secure environment. All people involved with this data collection will be Census Bureau employees and contractors who are sworn for life to protect confidentiality of Title 13 data. This study also complies with the Privacy Act and the Paperwork Reduction Act. The prenotice letter mailed to respondents will inform them of their confidentiality safeguards and that cooperation with the study is required by law.

Question 11. Justification for Sensitive Questions

The content of the 2013 Census Test will include household roster and characteristic information similar to the 2010 Census. The Census Bureau perceives no questions as being sensitive.

Question 12. Estimate of Hour Burden

An estimated 2,000 housing units will be selected for the test. Housing units not removed by administrative records will be sent a prenotice alerting them to the study and the TQA number. There will be no self-response option other than TQA. We will attempt to interview all housing units either by telephone or in person unless enumerated by administrative records. The Census Bureau estimates that 20% of cases will be enumerated using administrative records. The burden estimates in the table below are an upper bound based on interviewing all 2,000 cases.

	Total # of Households	Estimated Response Time	Estimated Burden Hours
Household or Proxy Interview	2,000	10 minutes	334

Question 13. Estimate of Cost Burden

There are no costs to respondents other than that of their time to respond.

Question 14. Cost to Federal Government

The U.S. Census Bureau estimates it will incur approximately \$1,000,000 in costs, which includes the purchase of phone numbers matched to addresses; the printing, assembling, and shipping of the advanced notification letter; a toll-free number respondents may call and ask any questions about the survey; interviewer staff; and staff time spent working on the design, execution, and analysis of the study.

Question 15. Reason for Change in Burden

This is a new collection request. Burden hours for this collection request are lower than stated in the Federal Register Notice (334 v. 36,167 hours). This collection is a feasibility study for a future collection request. That future collection request will use the remainder of burden hours.

Question 16. Project Schedule

Tasks	Dates
Instrument development begins	5/2013
Study plan drafted	6/2013
Study plan finalized	8/2013
Mail materials finalized	7/2013
Instrument completed	9/2013
Interviewers trained	10/2013
Initial letter mailed	10/2013
Begin data collection	10/2013
End data collection	11/2013
Conduct analysis	1/2014
Draft report	3/2014
Final report	4/2014

Question 17. Request to Not Display Expiration Date

Not applicable.

Question 18. Exceptions to the Certification

There are no exceptions.