

**SUPPORTING STATEMENT
U.S. DEPARTMENT OF COMMERCE
U.S. CENSUS BUREAU**

**2014 Census Test
OFFICE OF MANAGEMENT AND BUDGET (OMB) CONTROL NUMBER 0607-XXXX**

Part A. Justification

1. Necessity of the Information Collection

During the years preceding the 2020 Census, the Census Bureau will pursue its commitment to reducing the cost of conducting the next decennial census, while striving to maintain the level of quality it achieved for previous ones. A primary decennial census cost driver is the collection of data from members of the public for which the Census Bureau received no reply via initially offered response options. Increasing the number of people who take advantage of self-response options (such as completing a paper questionnaire and mailing it back to the Census Bureau) can contribute to a less costly census with high-quality results. An overall objective of the Census Bureau is to increase self-response in the decennial census by making it easier to respond to the population and housing unit count. The Census Bureau has committed to using the Internet as a primary response option in the 2020 Census. We need to study ways to promote the Internet as a self-response option for the 2020 Census; identify methods to communicate directly with respondents to alert them about the census data collection timeframe; provide each household a specific identification number to allow them to self-respond via the Internet; and allow options such as telephone questionnaire assistance to ensure respondents are comfortable with the use of this new data collection alternative.

The 2014 Census Test (formerly known as the 2014 Census Site Test) will allow the Census Bureau to study a variety of new methods and advanced technologies that are under consideration for the 2020 Census. To improve self-response, the Census Bureau plans to test new contact and notification strategies such as allowing respondents to pre-register their email address, cell phone number (for texting capabilities), mailing address, and physical location, and provide a preference for a contact strategy of either email or text. Furthermore, participants will have the option of responding to the test via multiple response modes including the Internet, paper questionnaires, and telephone interviews. Nonrespondents will be followed up via telephone and personal visit interviews using Computer Assisted Telephone Interviews (CATI) and Computer Assisted Personal Interview (CAPI) automated instruments. The Census Bureau plans to examine the following nonresponse followup (NRFU) design and implementation alternatives:

- using administrative records supported with commercial vendor data;
- varying the number of field followup contact attempts either in a prescribed fashion or applying an adaptive design (AD) approach to choose contact strategies on a housing unit basis. Frame data, paradata, administrative records supported with commercial vendor data, and cost data are used to prioritize cases and determine their contact types and stopping rules;
- changing the rules for when an enumerator can collect data from a proxy respondent; and
- collecting data for nonrespondents with automated devices such as tablets and smartphones.

In addition, the 2014 Census Test provides an opportunity for the Census Bureau to test potential enhancements to its automated processing of responses lacking a pre-assigned Census identification (ID) number. When a respondent does not provide their unique Census ID number on their questionnaire, any address data supplied by him or her must undergo Non-ID Processing. Non-ID Processing is a comparison of respondent-provided addresses to the Census Bureau's national inventory of living quarters addresses.

The 2014 Census Test will be conducted in a single geographic area in Washington, D.C. and Montgomery County, MD. This test will include contacting up to 190,500 housing units. For these addresses, the testing includes an initial self-response phase followed by a nonresponse followup (NRFU) phase for no more than 50,000 non-responding housing units. Furthermore, 250 of these 50,000 housing units will fall into Bring Your Own Device Testing, which is where the Census Bureau will experiment with using employee-owned, commercial smartphones to conduct NRFU. The households in NRFU are a sample of those who have failed to self-respond to the 2014 Census Test by a certain deadline. A Census Bureau employee will visit or phone these households to attempt to collect their questionnaire data. The number of personal visits or telephone call attempts to collect the data from nonrespondents will vary, based on alternative methods being tested.

For the self-response phase of the test, the Census Bureau will randomly assign sampled housing units to one of eight different contact and enumeration strategies. Each strategy aims to increase the use of self-response enumeration in a decennial census. Sampled housing units will initially receive a letter or a postcard containing instructions about how to respond to the test online using

a unique Census ID provided by the Census Bureau. Some households will receive a notice that allows them to pre-register for the Census and to notify the Census Bureau of their communication preference (that is, email or text). The telephone questionnaire assistance option will be available to all households. Respondents can respond by going to the Internet site or contacting the telephone questionnaire assistance center. For those participants who have not responded by late June, the Census Bureau will contact them with a final postcard reminder and then a paper questionnaire by mail, if necessary, on or around July 15.

The geographic area for the 2014 Census Test contains two strata within Washington, DC and Montgomery County, MD: one stratum is more likely to respond while the other is less likely to respond. Each of the contact and enumeration strategies will be tested in both strata. The difference in characteristics in the two strata will allow the Census Bureau to gather a variety of cost data associated with mileage and hours spent traveling to housing units and interviewing respondents. In addition, Time and Motion studies will be conducted to determine if/how we can produce efficiencies in the NRFU data collection operation.

The 2014 Census Test will look to modify the 2010 NRFU operation to increase efficiency and to reduce costs. One difference from procedures in the 2010 Census will be that telephone numbers will be provided to enumerators (when possible) with their case assignment. These numbers will come from a supplemental contact frame developed from commercial data sources. A second difference is that data will be collected on automated enumeration devices, whereas the 2010 Census NRFU data were collected on paper questionnaires. Another difference is that the “notice of visit” left at the door when a respondent is not home will contain information on how

a respondent can self-respond via the Internet or by calling the Census Bureau's telephone questionnaire assistance line. The intent of this feature is to reduce the number of return visits by encouraging respondents to complete their questionnaires online or by telephone.

For the 2014 Census Test, the Census Bureau will test the use of an automated enumeration device or instrument in field operations. The enumeration device, called the Census Operations Mobile Platform for Adaptive Services and Solutions (COMPASS), is a new development effort with the goal of replacing paper-based data collection methods historically used in decennial operations such as NRFU. The plan is that the COMPASS instrument will be able to be loaded on consumer-grade devices, such as iPhones and iPads. The test will help inform:

- The feasibility of conducting a field operation with the use of consumer grade devices.
- The feasibility of replacing traditional paper maps from the Census Bureau's TIGER System with Google Maps for locating housing units for enumeration activities.
- The feasibility of collecting GPS coordinates with the COMPASS instrument.

In addition, the Census Bureau will experiment with using employee-owned, commercial smartphones to conduct NRFU. Employee-owned equipment/services are commonly referred to as Bring Your Own Device or BYOD. A separate sample of 250 households will be contacted at the end of the NRFU field operation to test the BYOD alternative of employee-owned devices utilizing downloaded versions of the COMPASS instrument, Google maps, and other systems being used for the test against corporate-issued handheld devices pre-loaded with the same software. This will involve ten enumerators.

The objectives of this additional study are as follows:

- Design, develop, deploy, and support software solutions and processes that run on commercially available employee-owned mobile devices.
- Deploy and support secure software solutions that can be installed on commercially available employee-owned mobile devices.
- Conduct interviews with respondents using employee-owned mobile devices.
- Capture lessons learned.

Content Testing

The 2014 Census Test questionnaire will include questions on housing tenure, household roster, age, date of birth, race and Hispanic origin, and relationship. The 2014 Census Test will include testing of a combined race and Hispanic origin question that is similar to one used in the 2012 National Census Test. Based on results from the 2010 Race and Hispanic Origin Alternative Questionnaire Experiment (Compton, et. al. 2012), the 2014 Census Test provides an opportunity to further test the “streamlined” version of a combined race and Hispanic origin question. This modified version of the combined question removes the term “Negro” from the “Black or African Am.” checkbox and provides a shortened list of examples for the “Hispanic, Latino, or Spanish origin,” “Asian,” and “Native Hawaiian or Other Pacific Islander” checkbox categories. This combined question provides examples and write-in areas for each major response category. Respondents are asked to self-identify themselves by selecting one or more checkboxes and reporting a specific origin for each checkbox selected. The 2014 Census Test will involve testing two versions of a combined race and Hispanic origin question against separate race and Hispanic

origin questions in the Internet data collection; and testing a single version of the combined question on the paper questionnaire and in the COMPASS.

Based on our findings from previous testing and research on alternative approaches for collecting data on race and Hispanic origin, the Census Bureau recommended undertaking further testing of a combined question approach that builds upon the successful results of the 2010 Census Alternative Questionnaire Experiment Research on Race and Hispanic Origin.

This research, which the Census Bureau consulted with OMB on to approve further testing of the combined question approach, was undertaken to explore how the combined approach would work in different operational modes such as internet, web, CATI, and CAPI.

In our 2012 research, the Census Bureau found that respondents had navigational issues with answering a question which provided checkbox options that required mouse-click responses and then subsequent moves to keyboard input of "write-in" responses. The Census Bureau saw decreases across the board for all groups, and determined that these were related to respondents having difficulty moving from mouse to keyboard to answer the question.

Therefore, the Census Bureau designed our 2014 research to emphasize the need for detailed responses through the use of soft edit messages and the branching of subsequent follow-up screens to collect detailed information (e.g., Japanese) from respondents who identified with the previous screen's major OMB groups (e.g., Asian).

In addition, one element of the 2014 test was to test dedicated write-in areas for White detailed responses and Black detailed responses in the separate questions approach, an approach that was not explored in the 2010 AQE.

The Census Bureau expects that the results from our 2014 research will inform us about these topics and help inform our future testing this decade.

As a member of the federal interagency group, Measuring Relationship in Federal Household Surveys, led by the Office of Management and Budget, the Census Bureau continues to work with OMB and other federal agencies to improve data collection of same-sex married couples. For the relationship question, the 2014 Census Test will involve testing new response categories for opposite sex and same sex husband/wife/spouse and unmarried partner. In Internet data collection and on the paper questionnaire, two versions of the relationship question will be tested against each other: the traditional version and the new version with response options both opposite sex and same sex husband/wife/spouse and unmarried partner. The COMPASS will use the new version. As a result of focus groups and cognitive testing, the Census Bureau is now testing a revised relationship question with answer categories that specifically list "opposite-sex husband/wife/spouse," "same-sex husband/wife/spouse," "opposite-sex unmarried partner," and "same-sex unmarried partner." In addition, the partner categories have been moved to appear just after the categories for spouses, as requested by focus group participants.

The materials mailed to the respondents will inform them that the survey is mandatory, in accordance with Title 13, United States Code, Sections 141 and 193. This information will also be available via a hyperlink in the Internet instrument.

2. Needs and Uses

The results of the 2014 Census Test will help guide the design of additional 2020 Census testing later this decade. Testing in 2014 is necessary to establish recommendations for contact strategies, response options, and field operation efficiencies that can be further refined and tested in later mid-decade tests. At this point in the decade, the Census Bureau needs to acquire evidence showing whether the strategies being tested can reduce the costs of a decennial census, while maintaining the quality of the census data.

The response rates to paper and Internet will be used for 2020 Decennial program planning and determination of metrics. The use of several software and operating systems for field data collection will help inform the 2020 Decennial program planning and determination of options for software deployment. Several demographic questions and coverage probes are included to contribute to other recent testing opportunities to achieve optimal coverage for decennial censuses and surveys.

In the geographically restricted test areas where the Census Bureau will conduct NRFU, the 2014 Census Test is designed to collect information to 1) research the cost and quality impacts of differing NRFU contact strategies, and 2) test the use and functionality of mobile computing devices by the field staff. Research on the alternative NRFU respondent contact strategies will be conducted to discern if differing instructions to enumerators on the number of contact

attempts they should make leads to improved cost and productivity measures. Both fixed and adaptive design alternatives for contact strategies will be tested and compared. For the fixed panels, all NRFU cases will get two personal visit attempts with one telephone contact attempt in between for households where telephone numbers are available and provided to the enumerator. For the adaptive design panel an adaptive design model will indicate to the enumerator which cases are the highest priority to attempt on the current day, using information particular to the specific cases. Results from both of these alternative strategies will be compared to a control panel that will conduct NRFU operations similar to what was done in the 2010 Census. The testing will also obtain detailed data on the use of telephone contacts by enumerators (including the occurrence of inbound telephone calls to the TQA centers) and data on when and how enumerators use proxy respondents. Another major piece of the test is to introduce the use of mobile computing devices and IT processes in field operations to determine if/how these may produce efficiencies in data collection.

The specific goal for the Non-ID Processing research is to evaluate enhancements to the Census Bureau's process to collect address information and for matching and geocoding Non-ID responses via batch processing. Testing enhancements to Non-ID processing early in the decade will inform early planning for the 2020 Census design, as well as the infrastructure required to support large-scale processing of electronic Non-ID response data submitted via the Internet or a Census-provided questionnaire application designed for mobile devices.

The data collected from households and individuals during the 2014 Census Test will be used to research and evaluate new methodologies and systems to plan the 2020 Census. The Census Bureau will not publish any tabulations or population estimates from the substantive results from

this test. However, methodological papers may be written that include tallies of response characteristics or problems identified, and responses may be used to inform future research studies building upon the results of these tests. The Census Bureau plans to make the aggregated results of this study available to the general 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.

3. Use of Information Technology

The 2014 Census Test will use the Internet, telephone centers, email, texting, and mobile computing devices to collect data or communicate with respondents. Respondents will initially have the option to respond to this test via the Internet, or through telephone questionnaire assistance using a toll-free number and speaking with an operator.

Census field staff will be equipped with handheld mobile computing devices. The Census staff will use the mobile computing devices to conduct Computer Assisted Personal Interviews (CAPI) and to record census questionnaire data collected from the respondent and record information about their contact attempts. The enumeration device will allow for a more complete and accurate recording of contact attempts by enumerators than was possible on the paper questionnaire in the 2010 Census.

Information about contact attempts will be collected through a series of questions that enumerators will answer about their experiences in attempting to contact the respondent and when a contact attempt is made. These data may lead to further refinement of procedures before the 2020 Census.

Census field staff will also carry “notice of visit” cards with them that they will leave at the door when a respondent is not home, similar to what was done in the 2010 Census. However, these new “notice of visit” cards will contain information on how a respondent can self-respond via the Internet or by calling the telephone questionnaire assistance line. The intent is to reduce the number of return visits enumerators need to make by attempting to encourage self-response.

4. Efforts to Identify Duplication

The Census Bureau is testing new methods that have not previously been examined or used in a decennial census. Furthermore, our efforts are groundbreaking; to our knowledge, this test is the first effort under the Census Bureau “brand” to “invite” respondents to use the Internet data collection with a link embedded in an email or text. As such, public attitudes toward the Census Bureau implementing these methodologies are unknown and critical to understand.

Survey results typically cannot directly be applied to a decennial census environment. The field procedures used during a decennial census are distinct from other surveys the Census Bureau conducts in a number of ways, thus requiring a distinct testing environment. For instance, the size of the decennial census requires the hiring of new temporary enumerators instead of relying on experienced interviewers. New hires are often less efficient than experienced permanent

survey interviewers, so relying on efficiency rate results of experienced interviewers would be inaccurate if applied to a true census environment. Additionally, the decennial census allows for proxy respondents in a way unlike other census surveys, which also prevents other survey results from being applicable to a census environment.

We are however utilizing research results, when possible, from other Census Bureau surveys. Current research on American Community Survey paradata will be informative on the usefulness of continuing to contact respondents after they initially refuse to complete the survey. We also are surveying other countries with similar nonresponse operations for information about how they conduct their operation. The 2020 Research and Testing Program also is conducting additional literature reviews on results seen in other surveys about paradata, non-responding follow up procedures, fieldwork efficiencies, telephone contacts, Internet response, and geographic differences.

The sample for the 2014 Census Test will be limited to housing units in mailout/mailback areas. Group quarters and units in other types of enumeration areas will not be studied in the test. Further, to reduce burden on respondents, any housing units selected for the 2014 American Community Survey (ACS) will be excluded from sample selection.

5. Minimizing Burden

The collection of data targets households and individuals and should have no effect on small businesses.

6. Consequences of Less Frequent Collection

If this collection of information did not occur, the Census Bureau would lack quantitative evidence to improve upon the current decennial census design and would risk failing to identify cost savings for the 2020 Census. Frequency cannot be decreased as this is a one-time data collection; however, if the data collection is not conducted, there are repercussions including the inability to design micro- and macro- messaging that addresses actual public concerns on privacy and confidentiality issues related to new contact strategies, self-response modes, the use of automation and the use of administrative records. Ultimately, decennial census response may be affected by new methods, which, if implemented without appropriate testing could decrease the likelihood of realizing maximized cost savings in the 2020 Census.

7. Special Circumstances

No special circumstances exist.

8. Consultations outside the Agency

The notice for public comment, entitled, “2014 Census Site Test,” was published in the *Federal Register* December 24, 2013 (Vol. 78, No. 247, pp. 77646 – 77648). The Census Bureau received one comment during the 60-day period generally opposing data collections outlined in the Federal Register notice. This comment lacked specific suggestions for altering the Census Bureau’s data collection plans.

The Census Bureau consulted with a variety of data users including, but not limited to, academicians, national researchers, and the Census Bureau’s Advisory Committees.

Cognitive testing participants will be recruited from outside the Census Bureau to provide their views on the wording of the email and text messages. The respondents will be asked to provide

their reactions to the content of the messages and the mode of delivery, in order to test for comprehension, saliency, and sensitivity of the messages. In addition, external consultants from the National Academy of Sciences shared information about other relevant studies and provided quarterly feedback about the Census Bureau's research plans and objectives for the 2014 Census Test.

9. Paying Respondents

Respondents participating in this survey will not receive any form of compensation for their participation.

10. Assurances of Confidentiality

The Census Bureau will conduct the 2014 Census Test under the authority of Title 13 U.S.C. Sections 141 and 193. All respondents who participate in the 2014 Census Test will be informed that the information they provide is confidential and that their participation is mandatory. All collected information that identifies individuals will be held in strict confidence according to the provisions of Title 13 United States Code, Section 9.

11. Justification for Sensitive Questions

The Census Bureau is currently considering the inclusion of new categories for same sex couples on the decennial census questionnaire. In August 2009, the Secretary of Commerce requested that the Office of Management and Budget (OMB) establish the interagency task force [Measuring Relationship in Federal Household Surveys] to research issues related to improving the collection and tabulation of marriage and relationship data. One focus of the research was family relationships, particularly with respect to same-sex couples who report being married. The first phase of research involved focus groups conducted primarily with persons in cohabiting

same-sex relationships. The groups explored the meaning and interpretation of the current decennial Census and American Community Survey (ACS) relationship and marital status items. The second phase of qualitative research was conducted by the Census Bureau under the auspices of the OMB working group. As a result of the focus groups and expert panel review, two alternatives were developed for recommended wording to be further tested in larger-scale quantitative content tests. The 2014 Census Test includes testing of a new relationship question that includes the new same-sex response categories.

12. Estimate of Hour Burden

The Census Bureau estimates an average burden of 10 minutes for a household or person to complete a census questionnaire, whether by Internet, telephone, or personal interview. The estimate is based upon the burden for similar questions asked during the 2010 Census. The 2014 Census Test will have a sample of 190,500 addresses with a maximum potential burden of 31,750 hours.

13. Estimate of Cost Burden

Respondents who are contacted by cell phone and/or text message may incur charges depending on their plan with their service provider. The Census Bureau estimates that the total cost to respondents will be no more than \$840,000 or about \$4.37 per case. There are no other costs to respondents other than their time to participate in this data collection.

14. Cost to Federal Government

The cost of the operation is covered under funding for the 2014 Census Test, Research and Testing Program and is estimated to be \$3.4 million.

15. Reason for Change in Burden

The increase in burden is attributable to the information collection being submitted as new.

16. Project Schedule

Milestone	Date
Pre-registration	June 5, 2014
Initial Contact (Letters, Emails)	June 23, 2014
Census Day	July 1, 2014
Public response period – Internet and CATI	June 23, 2014 through September 23, 2014
Questionnaires mailed to non-respondents in geographic sites	July 15, 2014
Provide Nonresponse Followup Universe to the Field Control Systems	July 30, 2014
Conduct Nonresponse Followup	August 14 through September 25, 2014

17. Request to Not Display Expiration Date

No exemption is requested.

18. Exceptions to the Certification

There are no exceptions to the certification.