

**SUPPORTING STATEMENT**  
**U.S. Department of Commerce**  
**U.S. Census Bureau**  
**Generic Clearance for 2020 Census Field Tests to Automate Field Data Collection**  
**Activities**  
**OMB Control Number 0607-<XXXX>**

**Part A – Justification**

Question 1. Necessity of the Information Collection

The U.S. Census Bureau is committed to conducting a 2020 Census that costs less while maintaining high quality results. Field data collection activities are a significant cost driver in the decennial census. Field data collection activities include creating and updating address lists, updating maps, enumerating households and persons, collecting data on vacant housing units, and conducting quality control operations. In previous censuses, these activities required the use of a large temporary field staff with limited training using manual or paper forms and systems.

Advances in technology may create new opportunities to perform field data collection tasks in an automated environment. The Census Bureau plans to research and learn the use of new technologies to test their capabilities in performing data collection activities. As part of the learning process, the Census Bureau plans to conduct operations using new technologies. This research and learning are integral to the Strategic Plan for the 2020 Census.

Designing and testing innovations are part of the planning of every recent decennial census. A guiding principle stated in the Strategic Plan for the 2020 Census is to have an efficient design to “Support agile decision making by conducting small tests to prove or disprove cost savings methods.” [Strategic Plan for the 2020 Census, September 30, 2011, page 20.] The Census Bureau Director stated in his June 16, 2011

blog, “The sixth principle is to mount many, small tests throughout the decade. We are committing to a faster cycling of ideas and testing, relying on many small tests versus a small number of large, expensive tests. For example, although we cannot know the full features of the Internet option for the 2020 Census, we will have repeated tests of Internet census measurement throughout the decade, using platforms that will increasingly resemble those available in 2020.” Smaller scale tests can more directly inform specific research projects while keeping respondent burden to a minimum.

To carry out these tests, the Census Bureau plans to conduct field activities by programming and using mobile computing devices, such as smartphones and tablets, and using multiple software operating systems. The tests will inform census planners and stakeholders on their ability to program applications on different devices. In addition, the tests will measure the accuracy, productivity, and user experience with different combinations of mobile device and applications. Initially, the Census Bureau plans to purchase several different types of commercially available mobile computing devices for the tests. Future plans will test using program applications on privately owned devices, referred to as “bring your own device” or BYOD. In previous censuses, the Census Bureau has purchased equipment that it issues to the temporary field staff. After the census, this equipment was disposed as excess property. The use of census applications in a BYOD environment would reduce the need to procure equipment for field staff.

U.S. Code Title 13, Sections 141 and 193 authorizes the Secretary of Commerce to conduct such tests. The Secretary has delegated this authority to the Census Bureau. The Census Bureau plans to conduct these tests in small geographic areas involving a small number of housing units and persons over the next three years. The specific areas have not yet been determined. We will follow the protocol of past generic clearances: 14 to 30 days before the scheduled start date of each field test, we will provide OMB with a detailed background on the activity, estimates of respondent burden, and samples of pertinent forms and / or questions. We will provide OMB annually a report documenting the activities performed under this clearance at the end of each year.

The following sections describe the categories of activities to be included under the clearance. The Census Bureau has conducted these activities (or similar ones) previously and the individual respondent burden remains relatively unchanged from one time to another.

### **Address Listing and Mapping Tasks**

The Census Bureau maintains a Master Address File (MAF) of housing units and other living quarters. Census links each MAF location to the Census Bureau mapping system called the Topologically Integrated Geographic Encoding and Referencing (TIGER) database. The linkage is made by assigning a geographic location to each address. The MAF needs updating to account for new housing units and other living quarters. The tests plan to include collecting GPS coordinates of addresses to identify and reduce incorrect geographic identifiers of addresses. The TIGER database needs updating to account for feature changes such as new streets and street names.

The Census Bureau will update map features and address lists on mobile computing devices. During the testing of map and address update functions, it may be necessary to ask residents or other knowledgeable persons in a test area for street name and address numbers. The Census Bureau will record responses into extracts of the mapping and MAF databases that have been loaded onto the mobile computing device. The primary purpose of this activity during the test is to evaluate the performance of these tasks on a mobile computing device in a field environment. The data collected may be stored on the mobile computing device and /or other data storage system. Address data are protected information under U.S. Code Title 13, and the test will comply with the Census Bureau privacy and security requirements for collecting, transmitting, storing, and using information obtained during the test.

## **Enumeration Functions**

During personal interviews, the decennial census asks a series of questions of a household respondent and records the answers. The enumeration functions research will focus on using various applications and mobile computing devices to enumerate households and persons. The research and evaluation may include: developing an automated enumeration questionnaire; usability issues; conducting interviews; scheduling return visits; recording contact outcomes; recording the status of a housing unit (such as occupied or vacant); adding addresses; making work assignments; measuring production; enumerator routing; and transmitting data. To test enumeration functions, the Census Bureau may conduct the enumeration directly with a household member or knowledgeable respondent. The Census Bureau plans to code instruments in alternative languages and test the ability to toggle to an instrument in an alternative language. Initially, a Spanish instrument will be coded. Initial tests will focus on the functionality of the programs and devices. The tests will not target any particular population group or demographic. The Census Bureau will provide the actual questions asked to Office of Management and Budget following established protocol.

During these tests, the Census Bureau could develop other applications on the mobile computing devices to collect information. These applications could include: allowing respondents to enter their information directly into the device; perform voice recognition commands and recordings; and to input data during a phone call.

## **Quality Control Functions**

The quality control (QC) functions research is intended to test quality control functions and applications on different mobile computing devices for both listing and enumeration. The purposes of testing these functions are to develop requirements for the QC portion of the listing and enumeration applications in

2020. The scope of the tests may include revisiting areas and households to verify information collected in previous operations; correcting and adding map features, addresses, and households; and applying pass/fail requirements. The tests may include collecting GPS coordinates of addresses to identify and reduce incorrect geographic identifiers of addresses.

### Question 2. Needs and Uses

All activities described directly support the Census Bureau's efforts to maintain or improve quality while controlling costs in the 2020 Census. The information collected from households during these tests is to research new technologies to plan the 2020 Census. The Census Bureau will not publish any tabulations or population estimates from the substantive results of tests conducted under this clearance. However, methodological papers may be written that include some tallies of response characteristics or problems, and responses may be used to inform future research studies building upon the results of these early tests. The Census Bureau may use address and mapping information collected during these tests to update its MAF and mapping databases.

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.

### Question 3. Use of Information Technology

Census workers will use mobile computing devices, such as laptops, smartphones, GPS devices, and tablets, to collect responses or data in these activities.

#### Question 4. Efforts to Identify Duplication

These activities do not duplicate information collected by any other agency. Further, there is no similar or current information available that could be used or modified for these purposes.

#### Question 5. Minimizing Burden

This research is designed as relatively small-scale data collection efforts. This will minimize the number of respondents needed to test improvements to questionnaire design, test field data collection procedures and test new technologies. Small businesses or other small entities are not asked to report information.

#### Question 6. Consequences of Less Frequent Collection

Most responses to each of these activities are on a one-time basis. Some activities such as Quality Control tasks may require additional contact. Responses may be used in future research studies that build upon the results of these early tests. Failure to research and test new methods to conduct field tasks using new technology could result in increased costs and less accuracy.

#### Question 7. Special Circumstances

There are no special circumstances preventing the meeting of all OMB Guidelines.

### Question 8. Consultations Outside the Agency

The Census Bureau regularly consults with outside parties in its 2020 Census planning. For example, these tests are following the National Research Council's (NRC) recommendation to automate field activities. The NRC also endorsed the concept of smaller-scale tactical census tests, relative to the larger "omnibus" tests of previous censuses.

The Census Bureau published a notice in the Federal Register on March 28, 2012, soliciting public comments on our plans to submit this request (77 FR, Volume 60, pg 18790-18791). There were two comments received during the public comment period. We received one comment generally opposing the collection. A letter was received from IBM corporation outlining various challenges that these tests may face when it comes to leveraging new technologies for field testing. The Census Bureau is already aware of these challenges and is conducting these tests to address many of them.

### Question 9. Paying Respondents

Respondents will not be paid money or provided with gifts.

### Question 10. Assurance of Confidentiality

All respondents who participate in research under this clearance will be informed that the information they provide is confidential and that their participation is mandatory. All information tending to identify individuals will be held in strict confidence according to the provisions of Title 13 United States Code, Section 9. The Census Bureau staff on site will give a notice to each person contacted. This notice explains that any information given to the Census Bureau will be held in strict confidence. A copy of the notice will be provided to the OMB with each individual clearance request.

Question 11. Justification for Sensitive Questions

None of the questions asked during the activities described above are of a sensitive nature and they should not pose any problem for respondents in that respect.

Question 12. Estimate of Hour Burden

The total estimated respondent burden is 2,167 hours for the period from March 2013 to September 2014. A variety of activities will be conducted under this clearance and the exact dates and number of households and respondents for all activities are unknown at this time. The earliest time that activities would occur is in March 2013. The estimate of hour burden is based on our experience during the previous census. This chart shows the calculation of the estimated burden for FY 2013 and 2014.

<u>Time Period</u>	<u># of Respondents</u>	<u>Avg Time per Respondent</u>	<u>Burden Hours</u>
March 2013 – September 2013	8,000	10 minutes each	1,334
October 2013 – September 2014	5,000	10 minutes each	833
Totals	13,000		2,167

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 annual costs to the Federal Government associated with each specific test will be provided in the



Individual Request for Clearance document submitted to the OMB that will precede the test.

Question 15. Reason for Change in Burden

The increase in burden is attributable due to being new submission for information collection.

Question 16. Project Schedule

A schedule for completing each activity will be provided in the Individual Request for Clearance document submitted to the OMB that will precede the activity.

Question 17. Request to Not Display Expiration Date

No exemption is requested.

Question 18. Exceptions to the Certification

There are no exceptions to the certification.