



U.S. DEPARTMENT OF COMMERCE
Office of Inspector General



U.S. Census Bureau

***Census 2010: Delays in Address
Canvassing Software Development
and Testing, Help Desk Planning,
and Field Office Deployment Have
Increased Operational Risk***

*Final Report OIG-19171
February 2009*

For Public Release

Office of Audit and Evaluation





Report In Brief

U.S. Department of Commerce Office of Inspector General

February 2009



Why We Did this Review

In November 2008 Census completed modification of the Field Data Collection Automation (FDCA) contract. Under the modified contract, Census is requiring far fewer handheld units and has taken back responsibility for major tasks that had been assigned to the contractor, such as collecting data for blocks of 1,000 or more addresses and providing help desk support.

We assessed the bureau's progress in developing and implementing planned activities for the 2010 decennial address canvassing operation, and identified a number of issues that increase the potential for problems.

Background

The mounting problems with the FDCA contract prompted the decision to abandon use of handheld computers for nonresponse follow-up while keeping them for address canvassing--the first major operation of the 2010 census.

During address canvassing, thousands of temporary decennial staff will use handheld computers to collect addresses and geographic information to update the bureau's master address file and digital maps. The bureau describes "an accurate, comprehensive, and timely [address] list" as "one of the best predictors of a successful census." This report is one of a series responding to then-Secretary Gutierrez's request that OIG review the bureau's 2010 census plans to determine high-risk areas.

U.S. Census Bureau

Census 2010: Delays in Address Canvassing Software Development and Testing, Help Desk Planning, and Field Office Deployment Have Increased Operational Risk (OIG-19171)

What We Found

The revised decennial schedule requires delivery of the improved handheld computers to early local census offices by February 3, 2009, so that temporary workers ("listers") can begin training for the April 6 start of address canvassing. But delays in software development and testing over the summer and fall have shortened the window for delivering field-ready handhelds, training users, and implementing effective help desk services. We identified the following areas of concern:

Potential for unexpected handheld problems. Census missed dates for testing handheld components and the integrated system, and was left with only 8 days for field testing the entire system. This short test period increases the risk that unexpected problems may surface during the live canvassing operation, which could affect the productivity of listers and the accuracy of the results. In addition:

1. Census eliminated some hydrographic information from map files so that each region's maps could fit on a single digital card in the handhelds. But the move leaves listers with fewer reference points to guide them through assignment areas, which might make canvassing more difficult.
2. The bureau chose the Automated Listing Mapping Instrument (ALMI) to list large blocks, because these have been a problem for the handhelds. AMLI handles large data-collection tasks in some nondecennial surveys. But it defines collection areas differently from the handhelds, increasing the potential for duplicates in a decennial environment, and does not use GPS technology. In decennial field tests, canvassers had difficulty completing certain tasks using ALMI. Modifications to the large block approach based on field test results must be finalized soon to ensure the information collected is accurate and reliable.

Short time frame for establishing help desk services. The bureau's decision in July 2008 to manage help desk support beginning in January 2009 left little time to plan for and establish these services by the start of address canvassing. Given the limited handheld testing and the uncertainty of their performance, solid help desk services must be in place to field potentially high call volumes and ensure a successful operation.

Slow deployment of early local census offices. As of late November 2008, Census had opened only 87 of the 151 early local census offices needed to conduct address canvassing. Despite having deployed 144 offices as of early February 2009, the bureau continues to encounter delays with its rollout schedule. However, as a backup, Census will have nearby operational offices handle the canvassing preparations and workload of those not yet finished. The bureau must ensure the operational offices have the space and resources to handle the added work.

What We Recommended

We made no recommendations because of the little time Census has to complete its address canvassing preparations. But we continue to monitor how it (1) finalizes its approach to large block canvassing, (2) develops and conducts training for help desk staff, and (3) deploys local census offices while preparing to implement its contingency plans as necessary.



February 12, 2009

MEMORANDUM FOR: Thomas L. Mesenbourg, Jr.
Acting Director
U.S. Census Bureau

FROM: 
Judith J. Gordon
Assistant Inspector General for Audit and Evaluation

SUBJECT: *Census 2010: Delays in Address Canvassing Software
Development and Testing, Help Desk Planning, and Field Office
Deployment Have Increased Operational Risk
(Final Report OIG-19171)*

This memorandum transmits our final report assessing the risks associated with address canvassing for the 2010 decennial census. Our review found that delays in software development and testing, establishing technical help desk support, and completing the deployment of early local census offices have increased operational risk.

In responding to our draft report, the bureau disagreed with certain aspects of our findings. In particular, it did not agree that there were delays in defining requirements, stating that it delivered a full set of dress rehearsal address canvassing requirements in 2006. The last chapter of the report discusses our position regarding the bureau's response, which is included in its entirety in an appendix. With address canvassing scheduled to begin in early April and the large workload automation problems have created for the bureau, our report does not make recommendations or require an action plan, but does identify critical areas that require close monitoring by both the bureau and the Department.

We appreciate the cooperation and courtesies Census personnel extended to us during our review. If you would like to discuss this report, please call me at (202) 482-2754.

Attachment

cc: James K. White, Associate Under Secretary for Management, Economics and Statistics
Administration
Arnold Jackson, Associate Director for Decennial Census, U.S. Census Bureau
Marilia A. Matos, Associate Director for Field Operations, U.S. Census Bureau
Adam C. Miller, Census Audit Liaison

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Introduction

The mounting problems with the Field Data Collection Automation (FDCA) contract, under which the Harris Corporation is developing handheld computers and related systems for the 2010 Census, prompted the decision, in April 2008, to abandon use of the handhelds for nonresponse follow-up while keeping them for address canvassing. In November 2008, the Census Bureau completed modification of the FDCA contract. Under the modified contract, Census is requiring far fewer handheld units and has taken back responsibility for major tasks that had been assigned to Harris, such as collecting data for large blocks¹ and providing help desk support for address canvassing. While the revised plan reduces the overall risk posed by automation, the reformulated plan has imposed an enormous workload on the bureau that must be completed in a short period of time, and has created inherent risks of its own.

This report is one of a series responding to then-Secretary Gutierrez's request that the Office of Inspector General review the bureau's 2010 Census plans to determine high-risk areas. It discusses issues we believe present the greatest risk to the first major operation of the 2010 decennial—address canvassing—and require close monitoring by both the bureau and the Department. Because of the large workload the revised plan has created for the Census Bureau, our report does not make recommendations to which the bureau must formally respond but does identify critical areas in which we intend to follow up.

During address canvassing, thousands of temporary decennial staff, known as listers, will use handheld computers equipped with Global Positioning System (GPS) capability to collect addresses and geographic information to update the bureau's master address file and digital maps. The bureau describes "an accurate, comprehensive, and timely [address] list" as "one of the best predictors of a successful census." Address canvassing will begin on April 6, 2009, and continue through July 17, 2009. To conduct this operation, Census will primarily manage 151 early local census offices and employ approximately 140,000 temporary workers. It will rely on addresses from the updated master address file to mail out household questionnaires and for other enumeration activities.

We assessed the bureau's progress in developing and implementing planned activities for the 2010 decennial address canvassing operation, and identified a number of issues that increase the potential for problems. (See appendix A for a discussion of our objectives, scope, and methodology.)

¹ An area bounded by visible features (e.g., roads, rivers) on Census maps containing 1,000 or more addresses.

Findings

I. Delays in Defining Requirements and Completing Software Development Increase Operational Risks

In May and June 2007, the Census Bureau conducted a dress rehearsal of address canvassing in Fayetteville, North Carolina, and Stockton, California, during which FDCA had serious problems, including handheld crashes and slow response times, as well as lost data. As part of the revised plan, the bureau and Harris worked to finalize requirements for the devices, fix bugs, and implement new capabilities. The decennial schedule requires the improved handheld computer to be delivered to early local census offices by February 3, 2009, in order to begin training temporary workers. However, delays in software development and testing against a very tight schedule have shortened the window for resolving software problems and delivering field-ready handhelds in time for address canvassing.

A major reason for the FDCA problems has been the bureau's difficulty in providing the contractor with complete, correct, and stable requirements. As late as January 2008—nearly 2 years after contract award—Census finally delivered a complete set of user-validated requirements for the handhelds and supporting infrastructure. Delays in defining requirements have caused disruptive late-stage changes to systems and operations, which increase the planning workload and operational risk. Two notable requirements issues that were recently resolved were a workaround to accommodate map files that exceed the handheld's secure digital card capacity and the approach for handling large collection blocks.

A. Severely compressed time frame for developing and testing software increases the likelihood of unexpected problems during the live operation.

In June 2008, the bureau published a test plan intended to define and assign realistic time frames for completing the remaining address canvassing testing activities in the short time remaining before the start of the operation. The plan was aggressive: it called for testing of individual and combined handheld and related systems software functionalities to be completed by July 31, 2008, and product integration testing to be completed by September 30, 2008, prior to starting a series of user tests.² Neither of these milestones was met in part because of delays in establishing the Harris test environment and integrating bureau subject matter experts into the testing process. Unit and assembly functionality testing was not completed until September 15, more than one month after Census's original

² Per the Census Bureau's 2010 Census Address Canvassing Testing Plan, each functionality (e.g., ability to collect address information on a handheld computer screen) is unit tested separately, followed by assembly testing of the entire, interrelated complement of functions. Product integration tests are conducted across multiple systems (e.g., handheld computers, operations control system, databases, and external interfaces such as the master address file).

completion date of July 31. The planned 2 months of product integration testing was compressed into 1 month, completing on October 29 (instead of September 30). These delays in turn delayed and severely compressed the time available for operational field testing of the handhelds and the operations control system that local census offices will use to manage and monitor automated data collection operations. An 8-day test occurred in Fayetteville from December 5-12.

The field test was particularly important because it was the bureau's only planned opportunity to assess the capabilities of the improved handheld computers and operations control system under actual, albeit limited, decennial conditions prior to address canvassing. (Testing was only at one site and involved limited field staff and small work assignments.) We observed the December field test and noted improved performance of the handhelds and related systems. The bureau had only a short time remaining before the start of help desk training in late January 2009 to fix any problems identified during the test or in the analysis of the test data.

Although Harris demonstrated during the 2007 dress rehearsal the ability to provide software updates to handheld computers via wireless transmissions, any changes to the final address canvassing training materials should be made prior to Harris's scheduled delivery to avoid the burden and cost of producing and delivering revised training changes to the manuals, electronically or otherwise, to the field offices. The highly compressed test schedule increases the risk that unexpected problems may surface during the live address canvassing operation. Census and Harris intend to provide fixes and workarounds if needed during the operation, but unanticipated problems could affect the productivity of thousands of listers and the accuracy of the results. Therefore, as discussed in finding II, a well-trained help desk staff is critical to ensuring a successful address canvassing operation.

B. Data eliminated from secure digital cards may hamper listers' attempts to locate households.

Census had planned to use 13 versions of the digital card, one for each regional census center and the Puerto Rico Area Office.³ However, the bureau significantly underestimated the size of the maps that would reside on the card, finding in some cases that they exceeded the allocated space on the card by three to six times and sometimes exceeded the card's 2 GB capacity.

After having considered several options, the bureau chose the option that it believed had the least amount of risk, informing us in November that it removed certain hydrographic information (e.g., dry river beds) from the map files in order to have one card per region. Each region's map files are now contained on one card. This

³ Regional census centers and the Puerto Rico Area Office are set up specifically to manage decennial census operations.

solution allows handhelds to be moved among early local census offices within a region if needed to meet production goals. However, it introduces risk: the eliminated hydrographic information leaves listers with fewer reference points to guide them through their assignment areas, which might make address canvassing more difficult. While the handhelds will have GPS to help listers navigate to and mark housing units on the map, the lack of hydrographic information may confuse the lister because of discrepancies between the map and what they encounter on the ground.

C. Approach to canvassing large blocks in lieu of the handhelds has not been thoroughly tested in the decennial environment

During dress rehearsal, the handhelds performed poorly when used to list collection blocks containing over 720 addresses, which required the bureau to assess alternative collection methods. Although the bureau has worked with Harris to improve the handheld's performance, the risk associated with collection blocks containing 1,000 addresses or more was considered too high based on performance testing results. As a result, Census decided to use a software program that has been used in the field since September of 2003.

This program updates addresses for several nondecennial demographic household surveys conducted regularly by field representatives in Census's 12 regional offices. Known as the Automated Listing Mapping Instrument (ALMI), the software runs on laptop computers and is capable of updating several thousand addresses per block, but defines collection areas differently from the handhelds:

- The handhelds' collection blocks are defined by visible block borders, such as roads or rivers.
- The ALMI software uses "tabulation" blocks, which are defined by visible and nonvisible boundaries, such as school districts, counties, and state and congressional legislative districts.

Unlike the handhelds, ALMI does not have the benefit of GPS technology for navigating to and identifying where housing units are on the maps.

Bureau officials told us that they have preliminarily identified 2,069 large blocks nationwide and estimated that each one will take a lister 10 to 20 hours on average to canvass. Unlike other decennial operations that are managed and operated out of the regional census center, the ALMI large block collection operation will use the existing regional office staffing and infrastructure. But because of the effort's magnitude and the field representatives' workloads, the bureau expects the regional offices will have to hire and train temporary listers to supplement existing staff. Even so, Census believes that the software and its regional office infrastructure can reliably support this data collection effort based on its extensive use in the field

since 2003.

Potential for duplicates. To use ALMI in address canvassing, the bureau had to associate tabulation blocks with collection blocks, where boundaries may not correspond with one another. The bureau has acknowledged that doing so creates the potential for duplicate addresses—a persistent problem in its various efforts to update the decennial address list.⁴ In this instance, there will be areas where ALMI tabulation and handheld collection blocks overlap and will be canvassed by both ALMI listers and those using handheld computers. These “spillover” areas occur in locations where new roads have been formed since the Census 2000 tabulation blocks were created. Census has identified a way to resolve the results of the duplicative efforts. However, any errors in the resolution process will exacerbate the problem of address list duplicates.

Limited testing. The bureau’s September 2008 test plan scheduled a field test in November and December in Fayetteville and Charlotte to assess the software’s performance, operating procedures, and field procedures for collecting and transmitting large block data to the bureau’s Geography Division, which is responsible for updating the maps and master address file. This operational field test involved 2 bureau field representatives at each location canvassing a total of 7 large blocks. Prior to this test, two other performance tests were conducted earlier in 2008 – one at Census headquarters involving 2 large blocks and one at three sites in two states involving 12 large blocks. While Census is confident that ALMI is reliable, the actions taken by field representatives and the information entered into the laptop, such as identifying and recording group quarters information, required some modification of the procedures to adapt it for large block address canvassing operation.

Operational field test observations. We observed the November operational field testing. Although experienced field representatives were able to use ALMI to canvass large blocks, they had some difficulty following the address canvassing instructions for designating group quarters and took an inordinate amount of time to insert spots on maps to designate housing unit locations near nonvisible tabulation block boundaries. Lacking GPS capability, the field representatives rely on measuring techniques to estimate housing unit locations relative to invisible boundaries, often a very time-consuming process with an increased risk of inaccuracy.

⁴ U.S. Department of Commerce Office of Inspector General, October 2008, *Census 2010: Dress Rehearsal of Address Canvassing Revealed Persistent Deficiencies in Approach to Updating the Master Address File*, OSE-18599, and September 2007, *2010 Census: Key Challenges to Enumerating American Indian Reservations Unresolved by 2006 Census Test*, OSE-18027, Washington, D.C.: Department of Commerce OIG.

Potential for reassigning blocks from FDCA to ALMI during address canvassing. It is also possible that listers using handheld computers may find in their assignment areas an unidentified large block that was created as a result of recent housing construction and new roads that were not captured by mid-decade map and address updating operations. In this event, listers will work with local census staff to remove large blocks from FDCA and send them to Census headquarters, which then assigns them to the regional offices.

The bureau tested the ability of FDCA to identify a block as large and transfer it to Census headquarters during the address canvassing operational field test in December. Although the block identified during the test did not contain more than 1,000 addresses, Census reported that headquarters successfully received the block. Results from both tests will help the bureau finalize its approach for canvassing large blocks so that it can train its staff properly before this operation begins. Any problems with canvassing large blocks must be resolved before address information is collected to ensure the information is accurate and reliable.

II. Development of Technical Support Desk Services Is on a Tight Time Line

Harris's efforts to provide adequate help desk support during dress rehearsal were problematic—response times were slow and answers were inadequate. These problems, coupled with the high cost Harris proposed for decennial help desk services, prompted Census to remove this deliverable from the contract. The bureau will now manage help desk support, beginning in January 2009 through the remainder of the 2010 decennial. While Harris staff will still be involved, they will work in a support capacity, rather than as the lead.

Census must have help desk services in place by the start of address canvassing in April 2009. Having well-trained help desk staff is critical to ensuring a successful operation, especially given the uncertainty regarding the handhelds' performance. Census had managed help desk services during its 2004 field tests and experienced problems because help desk staff were inadequately trained to support operations.⁵ Nevertheless, the bureau believes it has the institutional knowledge, experience, and resources to provide adequate help desk support at a lower cost than the FDCA contractor. But it has little time to design and implement this capability before address canvassing.

Census's Technologies Management Office drafted a plan in September 2008 proposing help desk support at each early local census office to troubleshoot minor

⁵ U.S. Department of Commerce Office of Inspector General, September 2004. *Improving Our Measure of America: What the 2004 Census Test Can Teach Us in Planning for the 2010 Decennial Census*, OIG-16949-1. Washington, D.C.: Department of Commerce OIG.

issues involving the handheld computers. Any widespread hardware, software, and network problems will be resolved by the regional centers, Census headquarters, and the FDCA contractor.⁶ As part of the help desk solution, the Technologies Management Office will operate a trouble ticket system with an information knowledge base to log, track, and help resolve hardware and software issues at the local and regional offices. The trouble ticket system and an associated help desk call routing system were scheduled to be completed in early December 2008; however, the systems were not included in the operational field test because security testing and authorization for their use is pending. Census recently told us that a test of its help desk tools is tentatively planned for February, but details of the test are not yet available.

Delays in resolving FDCA software problems may require changes to procedures that could impact help desk staff training, scheduled to begin in late January 2009. The bureau anticipates sending the training materials to the Government Printing Office by the end of December 2008. Printing is expected to take approximately 1 month. Changes made to the handheld computers or FDCA procedures as a result of the December address canvassing field test will require the development of supplemental training aids. Census plans to use a small business contractor for developing these supplemental materials.

The bureau is monitoring FDCA software testing and development activities as well as the results of operational field tests to determine whether the content and schedule of help desk and lister training will need to change. At the time of our fieldwork, Census staff told us that it was developing a comprehensive schedule that identifies training activities and who is responsible for conducting each activity—either Census or Harris. This is a positive step to ensure accountability for deliverables and foresee any delays. But the bureau must be ready to implement its contingency plan to develop supplemental training materials to ensure temporary workers have the requisite instruction to conduct the operation successfully if problems arise.

III. As Delays in Opening Early Local Census Offices Continue, the Bureau Must Be Ready to Implement Reliable Contingency Plans to Support Address Canvassing

Census must open 151 early local census offices and hire approximately 140,000 temporary workers to conduct address canvassing. As of November 21, only 87 offices were operational, which leaves those areas still awaiting offices with less time to prepare for the first live decennial operation.

⁶ Calls not immediately answered by the early local census offices will be routed to a help desk support overflow center.

The process for opening an early local census office requires coordination between the bureau, the General Services Administration (GSA) and its leasing contractor, Harris Corporation, and lessors. Census and GSA identify potential office sites based on established criteria. Once the best available site is selected, GSA enters into a 2-year lease, which requires the lessor to make certain improvements before Census accepts the site for use. When the improvements are made, Harris is responsible for installing telecommunications and IT equipment as well as office furniture. An office is operational after Census tests and approves Harris's equipment installations.

Harris's local office deployment schedule has been in flux since the decision to conduct paper-based nonresponse follow-up last April. Back then, Harris anticipated finishing all local offices by the end of November 2008. But the change in operations required revisions to the local office design drawings to accommodate additional equipment, furniture, and network lines. This, in turn, delayed office improvements required of the lessor and the final work by Harris. Other circumstances added to the delay: (1) Granting of security clearances for Harris IT personnel was initially slow, which resulted in the number of initial office deployments being scaled back. (2) Census told us that it took longer than anticipated to accept office sites because some lessors had trouble securing financing to pay for necessary improvements in the current tight credit market. (3) Harris has taken longer than expected to install telecommunications equipment because office configurations for such equipment differ in some cases from the design drawings, and because it has had difficulty coordinating installations with its telecommunications service provider.

In late September, Harris revised its office deployment projection: the new target was to have 121 offices completed by the end of November and 18 more completed in December (with an additional 12 sites unscheduled at the time). By November 21, Census had leased all but 1 local office. But Harris, having finished its work in only 87 of them, projected completing an additional 45 in December, 18 in January, and 1 in February. In its response to our draft report, the bureau reported having deployed 144 offices as of February 5, 2009. This leaves 7 offices yet to be deployed with fewer than two months remaining before the start of address canvassing.

The bureau informed us that, to recover from these delays, Harris has compressed the installation schedule from approximately 6 weeks to between 2 and 3 weeks per office. The contractor has enough teams to handle the maximum number of simultaneous local office installations planned for a single week, which, as of November 21, 2008, was 22 for the week ending December 5, 2008

Even with increased manpower levels and simultaneous installations, delays have continued, and opening a majority of offices by year-end will require a sustained effort. As a contingency, Census staff informed us that they plan to have operational

local offices or regional census centers conduct the operations of nearby unfinished offices until the latter are up and running. Before executing these contingencies, Census must ensure that the operational offices have the space and resources to simultaneously handle the operations of a second local office.

Risk Areas Requiring Continuing OIG Oversight

At this writing, Census has fewer than 2 months to complete its preparations for address canvassing. If the Census Bureau is unable to resolve the issues we have identified, the success of this critical operation could be jeopardized. We will therefore continue to closely monitor the bureau's progress in:

- Finalizing the approach for large block data collection (including the production schedule, operating procedures, and the hiring and training of temporary workers) and processing of the final maps and address lists. This will include the bureau's progress in integrating large block data collection and processing into the overall address canvassing operation schedule.
- Completing the effort to identify training activities and develop a training schedule for technical support services, clearly delineating the responsibilities for Census staff and Harris, and disseminate the schedule to all parties responsible for those activities. Integration of the training schedule into the overall address canvassing operation schedule.
- Ensuring that sufficiently trained help desk staff are available at early local census offices at the start of address canvassing operations to field potentially high call volumes regarding problems with the handhelds or listers' difficulties in using the handhelds.
- Deploying the remaining early local census offices and preparing to promptly implement contingency plans for continuing operations, as necessary, such as recruiting, candidate testing, training activities, and production, for offices whose deployment is delayed into 2009.

Summary of Agency Response and OIG Comments

The Census Bureau provided written comments on a draft of this report (see appendix B). Census agreed with our characterization of difficulties in providing complete, correct, and stable requirements to Harris Corporation, but stated that our report implied the bureau did not provide address canvassing requirements until January 2008. We disagree. What we refer to as being delivered for the first time in January 2008 are not all requirements, but rather requirements that were complete and user-validated. Requirements provided to Harris earlier were missing important information including—as the bureau’s response acknowledges—requirements for performance (e.g., screen-to-screen transition times and transmission synchronization times) and capacity (e.g., number of addresses per block). Despite these omissions, the bureau maintains that it delivered a full set of dress rehearsal address canvassing requirements in 2006. Not having performance and capacity requirements early in the development process caused disruptive and resource intensive late-stage changes.

The bureau believes that the risk involved with delays in early local census office deployment is no longer relevant because it has deployed 144 of 151 offices as of February 5, 2009. We acknowledge the bureau’s efforts at having opened nearly all its local offices and for developing contingency plans to handle potential delays with future deployments. However, we note that four of the seven offices yet to be deployed are located in a major metropolitan area within a heavily populated census region. Therefore, we will continue to monitor developments with the remaining early local census office deployments.

In addition to these comments, we made minor modifications in our report to address bureau concerns regarding training materials and late changes surrounding its decision to use ALMI.

Appendix A: Objectives, Scope, and Methodology

Following the Census Bureau's decision against using handheld computers for nonresponse follow-up, then-Secretary Gutierrez asked the Office of Inspector General to review plans for decennial activities, concentrating on cost, schedule, and performance/quality, and provide timely analysis and recommendations for decision makers. In response, we held an entrance conference with the bureau in late June 2008 and began our survey work reviewing 2010 decennial operations for high-risk areas. Shortly thereafter, we decided to evaluate the risks associated with the address canvassing operation scheduled for 2009.

To conduct our evaluation we interviewed the bureau's associate director for decennial census; the chiefs for budget, technologies management, and telecommunications; the operation integration team lead for address canvassing and FDCA project principles; as well as officials overseeing the 2010 census in the Department's offices of Budget, Acquisition, and Chief Information Officer.

We reviewed decennial documentation including the integrated program plan, the operations and systems plan, the program management plan, the master integrated program schedule, budget plans, and risk registers, as well as the address canvassing, large block, and operational field test plans. We attended monthly FDCA program management reviews, observed demonstrations and testing of the FDCA handhelds and related systems and the ALMI software large block testing, in addition to visiting two early local census offices, two regional census centers, and one regional office.

We conducted this review from July to December 2008 in accordance with the Quality Standards for Inspections (rev. January 2005) issued by the President's Council on Integrity and Efficiency, and under authority of the IG Act of 1978, as amended, and Department Organization Order 10-13 (dated August 31, 2006).

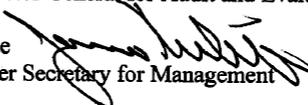
Appendix B: Full Text of Agency Response



UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
Washington, D.C. 20230

FEB 05 2009

MEMORANDUM FOR: Judith J. Gordon
Assistant Inspector General for Audit and Evaluation

Through: James K. White 
Associate Under Secretary for Management

Subject: Comments on the Office of Inspector General's Report
Entitled *Census 2010: Delays in Address Canvassing
Software Development and Testing, Help Desk Planning,
and Field Office Development Have Increased Operational
Risk* (OIG-19171)

The attached is in response to your request for comments on the above-referenced report.
We appreciate the opportunity to review the report prior to publication.

Attachment

cc: US/EA



**Census Bureau Final Comments on Jan 2009 OIG Draft Report
Job Number OIG-19171**

The Census Bureau appreciated the opportunity to meet with the OIG and discuss their draft report and our comments. We also appreciate the changes that the OIG made as a result of our conversation. Based on this final draft report, we would like to respond to four remaining issues with respect to your characterization in the report—Address Canvassing requirements, SD cards and ALMI late design changes, changes to training, and deployment delays.

Address Canvassing Requirements

On the 2nd paragraph on page 2, while we agree that a major reason for the FDCA problems has rested with difficulty in providing the contractor with complete, correct, and stable requirements, we disagree with the implication that the Census Bureau did not deliver Address Canvassing requirements to Harris until January 2008. Notwithstanding other operational requirements, the Census Bureau did deliver a full set of Address Canvassing Dress Rehearsal requirements to Harris in 2006. However, due to the large number of issues that arose (e.g., handhelds did not perform for large blocks, inability to start and stop an operation) during the Dress Rehearsal, the Census Bureau, in consultation with Harris, delivered revised, clarifying requirements for Address Canvassing in the fall of 2007. The January 2008 requirements delivery, which included the Address Canvassing revised requirements, did include requirements for performance and transmission standards, for which we were criticized for not providing prior to Dress Rehearsal.

Training

On page 3, 3rd paragraph, your revised sentence still makes it sound as if we revise and retransmit our entire training manuals should changes occur. When changes need to be made, we send out the changes as errata sheets electronically, thus minimizing burden and cost.

Late Changes

As for the discussion about the late changes to SD cards and move to ALMI for large blocks, while we agree that these changes introduce risk, the report does not acknowledge that based on our analyses, our solutions introduced less risk than the alternatives. We have been managing the residual risk on multiple fronts, including testing, training, and procedural modifications.

Deployment

On page 8, the reason that Harris' schedule was in flux was because they were attempting to accommodate our site availability problems. As of today, Harris had 129 sites installed by the end of December; and, to-date they have successfully installed 144 ELCOs. The one-month delay for the 15 sites has not impacted their readiness for Address Canvassing. The Census Bureau and Harris do have plans in place to handle the delay in the Census Bureaus making the other 7 sites available for equipment installation. We believe that your fourth risk on page 9 is no longer valid.