

***U.S. DEPARTMENT OF COMMERCE***  
***Office of Inspector General***

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**PUBLIC  
RELEASE**

***BUREAU OF THE CENSUS***

*Additional Steps Needed to Improve  
Local Update of Census Addresses for the  
2000 Decennial Census*

*Inspection Report No. IPE-10756 / September 1998*

*Office of Inspections and Program Evaluations*






**UNITED STATES DEPARTMENT OF COMMERCE**  
**The Inspector General**  
Washington, D.C. 20230

September 30, 1998

**MEMORANDUM FOR:** James Holmes  
Acting Director, Bureau of the Census

**FROM:** Johnnie E. Frazier   
Acting Inspector General

**SUBJECT:** Final Report: Bureau of the Census -- *Additional Steps Needed to Improve Local Update of Census Addresses for the 2000 Decennial Census* (IPE-10756)

Attached is the final report of our inspection of the Bureau of the Census's processes for involving local and tribal government review in the address list building efforts for the 2000 Decennial Census. As a result of recent discussions with bureau officials and your response to our draft report, we have made several changes to our report, including a rewording of recommendations. A copy of your full response is included in its entirety as an appendix to the report.

This report conveys our observations and conclusions about many of the factors that may affect the success of the bureau's local/tribal review operations. We observed that although the bureau appears to have procedures in place for preparing the "city-style" parts of the address list and is preparing to implement them, many of the procedures for involving local/tribal review in the "non-city-style" part of the address list are not yet formally defined. Uncertainty remains over the workload and cost of both the city-style and non-city-style field operations. Based on our observations and analysis, we make several recommendations that we believe will help the bureau better control the cost of field operations and improve local review programs.

Please provide us with an action plan within 60 calendar days, addressing the inspection recommendations, in accordance with the procedures described in DAO 213-5. The action plan should (1) provide additional details on how the bureau intends to address the recommendations; (2) provide a status report on the regional hiring and allocations of geographic and partnership specialist staff; and (3) describe the steps the bureau is taking to ensure equitable treatment of local updates, as explained in more detail within the report.

We thank the bureau staff, and in particular those within the Geography Division and the Geography Branch of the Field Division, for the assistance and courtesies extended to us during our review.

Attachment

cc: Robert Shapiro, Under Secretary for Economic Affairs

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## EXECUTIVE SUMMARY

The Bureau of the Census collects, analyzes, and distributes various types of data about the people and economy of the United States. In addition to its ongoing surveys that produce a general view and comprehensive study of the nation's social and economic conditions, every 10 years the bureau conducts a decennial population census that attempts to enumerate the entire country. The accuracy of decennial census data is critical because it is the basis for apportioning seats in the House of Representatives and is used to support a host of other activities, including federal and state redistricting, the implementation and enforcement of the Voting Rights Act, and the distribution of billions of dollars in federal and state funding each year.

Planning for, preparing for, and carrying out the decennial census is a complex responsibility, shared in part by several Census Bureau directorates. The Decennial Census Directorate has the primary responsibility for coordinating the census, and its Geography Division takes the lead in developing, planning, and coordinating the address list development efforts. The headquarters staff in the Field Division, located within the Field Operations Directorate, are responsible for translating program requirements into operational plans, while the Regional Offices implement the field canvassing and promotional outreach work.

In conducting the decennial census, the bureau attempts to deliver a questionnaire to every household in the country, a task that requires the bureau to know the address of each housing unit. To accomplish this, the bureau compiles the addresses, for both "city-style" and "non-city-style" areas, of housing units into its Master Address File (MAF) database. City-style areas have addresses that contain a street name and a house number for mail delivery, while addresses in non-city-style areas are served predominately by other types of mail delivery, such as rural route numbers and post office boxes.

The bureau's initial address list building strategy for the 2000 census called for combining three general approaches: (1) computer-matching the 1990 census address list with more recent address data from the Postal Service, (2) canvassing areas across the country with temporary employees to record housing unit addresses, and (3) establishing partnerships with local/tribal governments by conducting two programs to take advantage of their knowledge about address data. The two partnership programs were the Program for Address List Supplementation (PALS) and the Local Update of Census Addresses (LUCA) program. Under PALS, local/tribal governments submit address lists to the bureau for address matching and adding. Under LUCA, the bureau provides its address list to such governments for their review and changes.

In preparing for 2000, the bureau conducted a census pilot test in 1995 and began its partnering program activity using PALS in 1997. After analyzing data from the census test, the bureau discovered that MAF had both an under-coverage problem (missed units) and an over-coverage

problem (duplicate and nonexistent addresses). Moreover, soon after starting PALS, the bureau realized that the program was not working well: the participation rate was low, and the local/tribal address data proved difficult to match to MAF. So, after assembling a multi-disciplinary team to examine what could be done and holding a partnership conference in the summer of 1997 to obtain input from state, local, and tribal officials, the bureau decided to reengineer its strategy for building an accurate MAF.

The reengineered strategy tries to remedy the coverage problems in MAF and also makes changes to the partnership programs with local/tribal governments. The bureau plans to help fix the coverage problems by paying the Postal Service to undertake a “casing check” procedure, which will involve individual letter carriers in a process to identify addresses missing from MAF. This procedure will be carried out in late January 2000, before the scheduled mailing of census questionnaires. Also, the bureau will do a door-to-door canvassing of 100 percent of city-style address areas, to ensure consistent address data quality throughout the city-style address areas.

A major change of the reengineered strategy involved the partnership effort with local/tribal governments. Because of the early problems with PALS, the bureau decided to eliminate the program and focus on improving local/tribal government participation in LUCA. The schedule for LUCA, which was tested successfully in 1995 and was already underway for the dress rehearsal during the fall of 1997, was advanced by nine months in city-style areas, to begin in early 1998. Block canvassing for 2000 is to be used to verify the address data obtained from the Postal Service and the local/tribal review.

In 1998, a full dress rehearsal census operation is occurring at three sites: Columbia, South Carolina; Sacramento, California; and the Menominee American Indian Reservation in Wisconsin. Except for a casing check added late in the process, the dress rehearsal essentially implemented the initial strategy for building the address list, including PALS and LUCA, as the reengineering exercise came too late to make any other changes to the address list design for the dress rehearsal. However, the dress rehearsal did provide some additional lessons learned about LUCA, and some improvements were made to that program for 2000.

We conducted an inspection of the plans and procedures the bureau is using to involve local and tribal governments in the bureau’s address list building activity for the 2000 census. During our inspection, we observed that the bureau appears to have procedures in place for preparing the city-style parts of the LUCA program and is beginning to implement them. However, many of the procedures for involving local/tribal review in building the non-city-style part of the address list have not yet been formally defined. To better prepare for the 2000 and future decennial censuses, we also had the following observations about (1) the reasons for the slow start for the local review program, (2) improvements needed in resource planning and management, and (3) the desirability of handling block canvassing of city-style areas in a way that will minimize the need

for a second field verification.

### **Reengineering efforts and the continuing resolution contributed to a slow start for the LUCA program**

As part of the reengineered strategy in September 1997, the city-style part of the LUCA program, through which local/tribal governments review and suggest changes to the bureau's address list for 2000, was advanced nine months in the schedule to start in early 1998. With the advancement of LUCA, the bureau had to prepare to mail the invitations to participate in the review of city-style addresses before the program had been fully defined or the dress rehearsal feedback thoroughly evaluated and incorporated. In addition, at that time, the bureau staff responsible for planning the LUCA program had most of their resources involved in the dress rehearsal LUCA program. As a result, little time and few resources were available for planning the program for the decennial census.

Planning for the LUCA program was also disrupted by the appropriation restriction on new activities imposed by a series of five continuing resolutions in October and November 1997. This restriction delayed the hiring and training of partnership specialists, whose duties include encouraging local/tribal government officials to participate in LUCA. The bureau had planned to hire and train these specialists in the fall of 1997, so they could begin contacting local/tribal government officials in February and March 1998. The more than one-month delay in starting to hire the specialists likely contributed to the delay in recruiting local/tribal participation.

The appropriation restriction also caused disruptions in implementing the dress rehearsal program by delaying the hiring of temporary staff at the bureau's data processing center in Jeffersonville, Indiana. The temporary staff were to enter into the computer system the address changes suggested by the local/tribal governments participating in the dress rehearsal LUCA. Because of the hiring delay, the bureau instead shipped all of the dress rehearsal LUCA address changes to its headquarters in Suitland, Maryland, where staff keyed in the address changes and updated and digitized the corresponding maps. If similar hiring restrictions should occur for the LUCA program for 2000, the bureau will not be able to adopt the same contingency arrangement because of the immense scale of operations planned and the large volume of data expected to be received from local/tribal governments (see page 10).

### **Resource planning and management can be improved**

The reengineered design has created a very high demand for startup services in the bureau's 12 regional census centers for both outreach staff (partnership specialists) and technical staff (geographic specialists). In February 1998, letters were mailed to local/tribal government officials inviting them to participate in the LUCA program and to review bureau maps for 2000. Since then, the partnership specialists have been telephoning and sending follow-up letters to

local/tribal officials inviting them to participate, while the geographic specialists have begun training the local/tribal government staff in how to work with the census address lists provided for review. The geographic specialists will also be responsible for providing technical assistance to governments throughout the LUCA processes. The size of this assistance workload is uncertain, as it will depend on the number of governments participating, the extent of local/tribal review, and the number of address changes submitted.

We found that the resources for these activities are not distributed regionally in proportion to the likely startup workloads. For planning and managing the LUCA activity, each regional census center has roughly the same number of outreach and technical staff, despite a large variance in the number of government jurisdictions they contain. For instance, the southern California region has 300 jurisdictions and the Kansas City region has 8,500, but both regions have about the same number of partnership and geography staff. Some of the regions with large numbers of jurisdictions did not have enough staff to make all of the follow-up calls to local/tribal governments or to conduct all of the necessary local training. Some regional officials believe that this situation will lead to disparate treatment of jurisdictions within and across regions. Because of these current workload differences, and the uncertainty about future technical assistance workloads, it remains unclear whether the regions are ready to handle the LUCA program (see page 13).

### **Additional steps are needed to ensure equitable treatment of city-style LUCA suggestions**

The reengineered MAF strategy includes block canvassing to record the mailing address and physical location of every housing unit in all areas with city-style addresses. The cost of this operation, which is scheduled for January through May 1999, is estimated to be as high as \$95 million. Block canvassing, which also will provide a field verification check of the address changes suggested through the city-style LUCA program, has become, to a great extent, a data quality “safety net” for city-style addresses. Recognizing the importance of uniform data quality, the bureau has added an additional quality assurance component to its design of the canvassing operations. Specifically, the bureau has added a second crew leader, as a quality assurance specialist, to each team of address canvassers in the field.

However, given current slippages in the LUCA program, it is unlikely that all LUCA addresses for city-style areas will be received in time to be verified during block canvassing. This could result in some suggested LUCA additions not having an equal chance of being reflected on the address lists generated by the block canvassing operation. Thus, if the bureau relies solely on the block canvassing operation to provide verification data for LUCA suggestions, the quality of the bureau’s decisions to accept or reject LUCA suggestions may vary by whether suggestions

have been received in time to be included on the address lists used in block canvassing. We believe there are steps the bureau can take to ensure that local review suggestions are treated equitably (see page 17).

Recommendations addressing our concerns are on page 22.



Subsequent to the issuance of our August 1998 draft report to the Bureau of the Census, representatives of OIG had several discussions and meetings with representatives of the bureau to discuss possible clarifications of the draft report's observations and recommendations. The bureau's written response also (1) provided a detailed list of the operations that would be potentially affected by funding delays or restrictions in possible continuing resolutions for fiscal years 1999 or 2000, (2) described partnership and geographic specialist staff increases planned during fiscal year 1999, and (3) outlined its LUCA process for the 2000 census. The final recommendation of the report was revised, as described in the bureau's written response, and, as appropriate, we have added additional comments and clarified several points throughout the final report. We have also asked that we be provided with an action plan within 60 calendar days, in accordance with the procedures described in DAO 213-5. The action plan should (1) provide additional details on how the bureau intends to address the recommendations; (2) provide a status report on the regional hiring and allocations of geographic and partnership specialist staff; and (3) describe in more detail the steps the bureau is taking to ensure equitable treatment of LUCA suggestions.

The entire agency response is included as an attachment.



## INTRODUCTION

Pursuant to the authority of the Inspector General Act of 1978, as amended, the Office of Inspector General evaluated the Bureau of the Census's efforts to involve local/tribal governments in the review of its address lists for the 2000 Decennial Census.

Inspections are special reviews that OIG undertakes to provide agency managers with information about operational issues. One of the main goals of an inspection is to eliminate waste in federal government programs by encouraging effective and efficient operations. By asking questions, identifying problems, and suggesting solutions, OIG hopes to help managers move quickly to address issues identified during the inspection. Inspections may also highlight effective programs or operations, particularly if they may be useful or adaptable for agency managers or program operations elsewhere. This inspection was conducted in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency. Our field work was conducted from April through May 1998. During the review and at its conclusion, we discussed our observations with various program officials, including the Chief of the Address List Review Branch of the Geography Division and the Assistant Director for Decennial and Geography Policy.

## PURPOSE AND SCOPE

We conducted an inspection of the plans and procedures the bureau is using to involve local and tribal governments in the review of the Master Address File (MAF). One of the four key elements of the bureau's strategy for the 2000 Decennial Census is "partnering," and the local review of census address lists is the most prominent part of that element thus far. A complete and accurate address list will serve as the basic control for the census, because if an address is not on the list, then its residents are less likely to be counted. Therefore, the bureau is trying to create a complete and accurate MAF. The purpose of our inspection was to assess the bureau's procedures and policies for involving local participation in the bureau's address list building activity for the 2000 census. The bureau's current program for involving local review has a schedule that differs for the two types of areas depending on the predominant method of receiving mail delivery -- either "city-style" or "non-city-style". The policies and procedures for non-city-style areas were not yet available during the period of this review, thus we did not assess them.

During our inspection, we reviewed bureau documents, examined bureau cost and staffing data, and interviewed General Accounting Office officials, representatives of Census 2000 Advisory Committee Member organizations and State Data Centers, local/tribal government officials, and bureau officials at headquarters and in the regions. We did not assess the reliability of the cost data for various local review program elements.

## BACKGROUND

The Bureau of the Census collects, analyzes, and distributes data about the people and economy of the United States. The bureau continually conducts surveys to produce a general view and comprehensive study of the nation's social and economic conditions. In addition, every 10 years the bureau conducts a population census that attempts to count all of the residents of the country. The next decennial census is scheduled for the year 2000.

Several major organizational units within the bureau are involved in conducting the decennial census, but the Decennial Directorate is primarily charged with this responsibility. Other bureau directorates and divisions support the effort. For example, the Geography Division within the Decennial Directorate takes the lead in developing, planning, and coordinating address list building efforts and writing the program requirements. The Geography Branch of the Field Division, located within the Field Directorate, translates those program requirements into operational plans. The partnership and geographic specialists at the twelve Regional Census Centers within the Field Division implement the requisite field work according to the operational plans and specifications. The Computer Services Division within the Information Technology Directorate provides the necessary data processing and other computer software development services to the Geography Division, according to the program requirements.

### Master Address File and TIGER database

In conducting the decennial census, the bureau attempts to deliver a questionnaire to every household in the country. To accomplish this task, the bureau needs to know the address for each housing unit. The Master Address File (MAF) is the bureau's database that stores all of the nation's addresses; it currently contains over 118 million housing unit addresses. About 94 million of these addresses are in city-style areas. Addresses in city-style areas contain a street name and a house number. The other 24 million housing unit addresses in MAF are for non-city style areas, predominately with rural route numbers or post office boxes. The MAF also contains a location description, or map spot, that identifies the location of the housing unit.

To link the address data to the bureau's map and geographic information, the bureau has developed a Topographically Integrated Geographic Encoding and Referencing (TIGER) database that contains the location of every street, road, river, stream, lake, railroad, and government unit in the nation.

### Partnership programs

In 1992 the Congress mandated that a study of the fundamental requirements for the nation's decennial census be undertaken by the National Academy of Sciences' National Research Council. The Council reported that about one-half of the 1990 census undercount was

attributable to missed housing units. Consequently the Council recommended that the bureau develop cooperative arrangements with local/tribal governments to improve its address data and that the Congress amend Title 13 of the U.S. Code to permit sharing of address data for such purposes with local/tribal governments. Section 9 of Title 13 provides statutory authority for the bureau to protect the confidentiality of the persons from whom it collects data, and in general prohibits sharing of any individual's data collected by the bureau. But based in part on recommendations of the National Academy of Sciences and others, the Congress passed the Census Address List Improvement Act of 1994, which amended Title 13 to require the bureau to solicit address list feedback from local/tribal governments.

#### Initial address list building strategy

The bureau's initial address list building strategy, as discussed further below and illustrated in Figure 1 (see page 6), relied on (1) matching the 1990 census address list with the U.S. Postal Service's primary address database and then merging the addresses in city-style areas with TIGER, (2) collecting addresses from local/tribal governments in a Program for Address List Supplementation (PALS), (3) providing address lists to local/tribal governments for their review in the Local Update of Census Address (LUCA) operation, (4) performing field verification checks of address information provided by local/tribal governments, (5) updating addresses for multi-unit structures in an operation in city-style areas, and (6) conducting field address listing operations in non-city style areas.

Beginning with the 1990 census address list, the bureau used computer software to match its address lists with the Postal Service's primary list of addresses in city-style areas: the Delivery Sequence File. Each month, the bureau receives updated versions of the Postal Service file and matches it to and merges it with MAF periodically before major operations that rely on MAF.

The bureau had planned two programs to partner with local/tribal governments to use their knowledge of local addresses and to generate support for the 2000 decennial. Under the first, PALS, local/tribal governments were asked to submit their own address lists to the bureau. The bureau converted those address lists and computer matched them with MAF, editing and adding addresses as appropriate. In the second partnering program, LUCA, the bureau shares its localized address lists and maps with participating local/tribal governments for their review and then matches and verifies their suggested changes before either revising MAF or rejecting suggested changes. The local/tribal government officials can designate a liaison to review the addresses and provide the bureau with suggested changes.

To check the validity of the address list changes submitted by the local/tribal governments, the bureau plans to implement a field verification operation of those changes. After processing the LUCA input, the bureau will provide feedback on the status of the adds, deletes and corrections to the jurisdiction. Local/tribal governments will have the right to appeal any rejections through

a formal appeals process managed by the Office of Management and Budget.

Two field canvassing operations were also planned to help build the address list. A targeted block canvassing operation was planned for city-style areas identified by the bureau where it expected address coverage problems. From past census experiences, the bureau realized that it had problems identifying housing units in areas in transition, such as areas where single family homes were being divided into multiple unit homes or where there was significant construction of new housing units. And separately, the bureau planned to canvass 100 percent of non-city-style areas to develop address data from scratch, during an operation referred to as Address Listing.

Conducting the address list building program requires extensive planning to (1) generate interest in the local/tribal programs, (2) supply technical support and training, (3) produce a high volume of address lists and maps for local/tribal governments to review, (4) mobilize a large temporary work force in the field, and (5) enter a large amount of data into central computer systems. To manage the program, the bureau decided to conduct it in three waves. Assignments of jurisdictions to waves was based in part on the flow capacity of the bureau's central data processing facility in Jeffersonville, IN and the varying seasonal weather patterns in different regions and their resulting impact on the productivity of temporary field workers.

#### Problems discovered with the address list building strategy

A National Academy of Sciences panel endorsed the initial address list building strategy in its Interim Report II, which was issued in June 1997. However, concerns had already begun to arise among bureau staff that there was a heavy reliance on the Postal Service file and the PALS address lists without validation of their accuracy.

When working with the Postal Service file, the bureau discovered that it was not completely up-to-date in terms of new construction, it did not thoroughly reflect new local address systems or their transition from non-city-style to city-style, and it was not uniformly current in that address changes in some areas were updated faster than in other areas. These initial concerns regarding the Postal Service file were confirmed when the bureau conducted the 1995 Census pilot test. The bureau analyzed the results of the pilot test and discovered that, due in part to these characteristics of the Postal Service file, MAF had both an under-coverage problem (missed units) and an over-coverage problem (duplicate and nonexistent addresses).

In addition, PALS was proving to be unsuccessful because the local/tribal government lists that were submitted to the bureau were proving difficult to match to MAF. The address lists submitted by the participating governments contained nonstandard street name abbreviations, missing and inconsistent unit designators (such as apartment numbers), and missing and inconsistent distinctions between residential and nonresidential addresses. Computer matching

of the address lists created many errors, and the bureau found itself spending significant resources trying to match addresses manually. The bureau was also disappointed that only 1,000 out of the 39,000 local/tribal governments chose to participate.

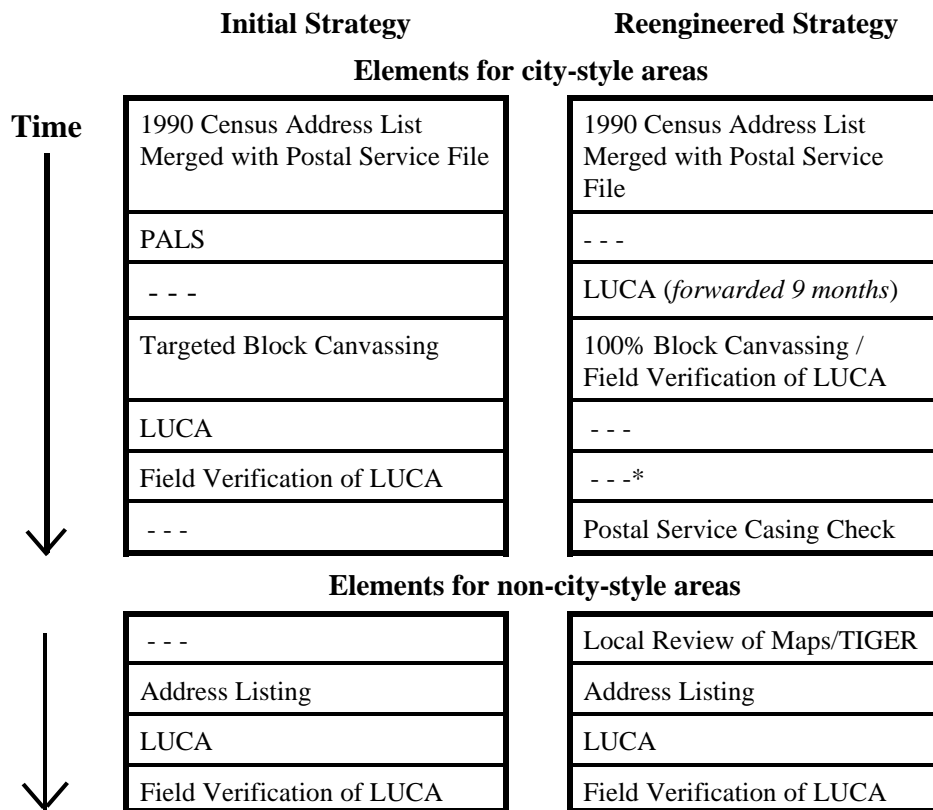
#### The business process reengineering of the strategy

By the spring of 1997, the bureau realized that with the Postal Service file and PALS problems, it needed to modify its initial address building strategy. So, in the summer of 1997, the bureau undertook a business process reengineering effort to explore options for improving the address list building strategy. To conduct the reengineering, the bureau assembled a multi-disciplinary team that consisted of geographers, statisticians, field operation specialists, government partnership specialists, management and systems analysts. During the reengineering exercise, this team held a partnership conference with tribal, state, and local government officials to obtain their input on the bureau's address list building strategy. As a result, in October 1997, the bureau modified its address list building strategy.

A major change in the strategy involved the bureau's partnering effort with local/tribal governments. Because PALS participation was low and the address data the bureau received was difficult to match, the bureau decided to eliminate the PALS program and focus its resources on improving local/tribal government participation in the LUCA program. The city-style LUCA program was rescheduled to start nine months earlier than initially planned. The move doubles the amount of time participating governments have to review the address list (from six weeks in the initial design to twelve weeks after the reengineering) and allows the bureau to conduct a field verification check of the city-style LUCA addresses during the block canvassing operation. In addition, the bureau experienced enough difficulty with its non-city-style maps during the dress rehearsal address listing to justify adding a map and TIGER update operation to the 2000 strategy as well. These changes to the strategy are illustrated in Figure 1.

To alleviate some of the coverage problems associated with the Postal Service file, the bureau decided also to add a late Postal Service casing check for city-style areas prior to when the questionnaires are mailed out for 2000. The casing check, which the bureau has used before, is a commercial service provided by the Postal Service in which the postal carriers place pre-addressed cards in their mail-sorting cases to identify either undeliverable addresses or addresses missing from the customer's list. The bureau believes that the casing check will update MAF with any new residential construction occurring in 1999 and early 2000 that was missed by the other operations. The bureau originally sought to have the check conducted in March, immediately prior to the mail-out of questionnaires, but concerns over the bureau's inability to process the volume of data coming back from the Postal Service in time for the mail-out led to the bureau scheduling the casing check for the last two weeks of January.

**Figure 1: Elements of Address List Building Strategies Before and After Reengineering**



\* A separate field verification operation will take place only for any LUCA changes coming from governments too late to be verified by the block canvassing operation.

To further correct the coverage problems discovered in the 1995 test, the bureau determined from the reengineering exercise that a 100 percent block canvassing operation was necessary to validate the address changes made to MAF from the Postal Service file and the LUCA program. The bureau reported that block canvassing would result in a consistent level of address accuracy nationwide. Block canvassing will begin in January 1999, immediately after the LUCA program for city-style areas is planned to be completed. The bureau plans to hire 21,000 address listers to perform the work. The bureau has described block canvassing as a “ground to book,” or “independent” listing. By this the bureau means address listers are to ensure that everything they see “on the ground” is accurately reflected in the address registers the bureau provides them, rather than simply verifying the accuracy of what already appears in the address register. Thus, the operation will provide an independent field verification of all changes suggested under LUCA. Address listers will interview every third housing unit to record address data and inquire

about address data for the households on either side. When an address lister finds a multiple unit structure, they are to interview the manager to ensure that every individual unit is listed. Block canvassing will also be implemented in three staggered waves, identical to LUCA.

### Implementing LUCA

The bureau estimates that over 18,000 local government jurisdictions will participate in LUCA. To plan, coordinate, and execute the LUCA program requires a joint effort among (1) the Geography Division in the Decennial Directorate, (2) the Field Directorate, including the Field Geography Branch and the twelve Regional Census Centers (RCCs), and the (3) the National Data Center facility in Jeffersonville, run by the Information Technology Directorate.

The Geography Division is responsible for strategic planning, tracking participation of local governments and overall coordination of the program. Within the Field Directorate, the Field Geography branch works closely with the Geography Division in planning the operational aspects of LUCA. The Field Geography branch also implements the training for the bureau staff in the RCCs. In the RCCs, the partnership specialists are phoning local/tribal government officials to encourage their participation and geographic specialists have begun training local/tribal government officials in the technical aspects of making changes to the address lists. Personnel in Jeffersonville are producing the initial address lists and maps that are being sent to the local/tribal governments and then will process all the map and address data changes suggested by the local/tribal governments.

The bureau has generally made available all of the information required for partners and bureau staff to implement the LUCA program for governments with predominantly city-style areas. The information has been made available through Federal Register notices, correspondence with potential partners, and training materials. However, the details of non-city-style LUCA have not yet been finalized or disseminated. Figure 2 below summarizes the steps the bureau intends to take to disseminate the program information.

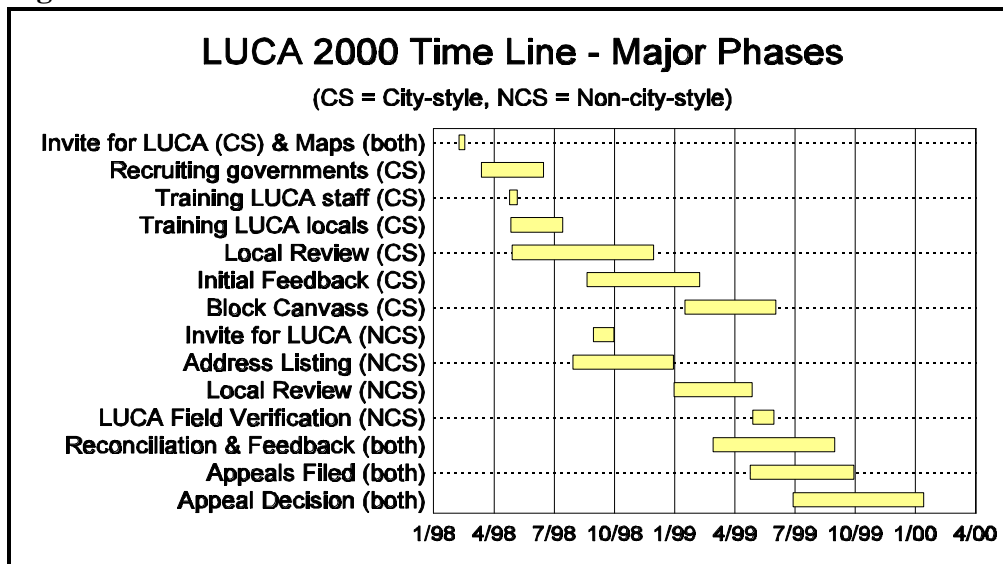
**Figure 2: Steps Already Taken by the Bureau to Disseminate PALS & LUCA Information**

	City-style	Non-city-style
Basic PALS quality standards published	✓	✓
PALS process & time line published	✓	(obviated)
Basic LUCA quality standards published	✓	
Appeals process & time line published	✓	✓
Map review invitations mailed	✓	✓
LUCA invitations mailed	✓	
LUCA training schedule announced	✓	
Activity time line circulated	✓	
LUCA strategies brochure distributed	✓	

“✓” denotes that a step has already been taken.

In February 1998, letters were mailed to local/tribal officials having city-style areas in their jurisdictions, inviting them to participate in LUCA. The first address lists in city-style areas for 2000 were mailed out to local/tribal governments in early May (see Figure 3). After they receive their list, local/tribal governments will have three months to review them and suggest adds, deletes, or other changes to the list.

**Figure 3**





All city-style LUCA feedback from local/tribal governments will be received between May and November 1998. Immediately after receiving the address lists back from the local/tribal governments, the bureau intends to send a confirming summary of the information received (but not yet processed or verified) to the participating governments. Any changes or adds to addresses in city-style areas suggested by the local/tribal governments will be verified beginning in early 1999.

For non-city style addresses, the bureau must create the initial address list from scratch, based solely on maps and visual inspection of local/tribal areas during address listing. The address list development for non-city style addresses will be completed in late 1998. The invitations to participate in non-city style LUCA are planned to be mailed in September 1998, with local/tribal government reviews scheduled between January and April of 1999. Non-city style LUCA field verification is scheduled to be completed by June 1999.

As field verification is completed in either block canvassing or separate non-city-style operation, the bureau will decide which local/tribal government address changes will be accepted or rejected during a LUCA reconciliation phase (between March and August 1999). The bureau will report to participating governments, during the feedback phase, on the status of every suggested change, describing why specific changes were not accepted. After reconciliation, the local/tribal governments have the right to appeal (between April and September 1999) the changes that were not made to the address list to a federal appeals board comprising officials from outside the Department of Commerce. The appeals process will be managed by OMB.

Since the reengineering took place while the dress rehearsal address building activities were underway, the bureau implemented the previously designed strategy at the dress rehearsal sites, with one exception. Since the Postal Service casing check could be added relatively late in the planning process without affecting the other operations, the bureau included it in the dress rehearsal. Early feedback on the dress rehearsal LUCA experience has lead the bureau to make further simplifications and enhancements to the LUCA program. For example, the bureau will no longer provide governments with the addresses immediately outside their jurisdictions--an action that caused confusion; and toll-free numbers will be provided for participants to call either a national technical help desk for computer file problems or the regional census centers for other technical help.

## OBSERVATIONS

While we generally found the bureau to be implementing its address list building activity appropriately, we also found that the possible workloads in key operations for both city-style and non-city-style areas are uncertain. The bureau's believes that its current address list building strategy for 2000 incorporates significant improvements over earlier strategies. Yet we identified a number of steps that the bureau can take to help further reduce the costs and improve the quality and timing of its address list building program.

### **I. Reengineering Efforts and the Continuing Resolution Contributed to Slow Start for Decennial LUCA Program**

After the September 1997 reengineering decision was made to mail invitations for local review in February 1998, nine months ahead of schedule, there was little time left for continued planning of LUCA for 2000. Both the Geography Division and the Geography Branch within the Field Division were already heavily involved with the dress rehearsal LUCA program at the time preparations for LUCA in 2000 needed to be made. Originally, LUCA preparations for 2000 were to be made in 1998. Even though the bureau had conducted and received feedback on a 1995 test of LUCA, it was continuing to learn more and refine the LUCA program for 2000 based on recent dress rehearsal experiences. With the nine-month advancement of the LUCA program, the bureau had to prepare to mail the city-style invitations before the program was completely defined or the feedback from the dress rehearsal thoroughly evaluated and incorporated. In addition, developing the LUCA training program took longer than expected. As a result, the training was rescheduled three times and eventually was conducted two months later than the reengineering had suggested.

A series of five continuing resolutions in October and November 1997 restricted appropriations to the bureau from being used to fund new activities from October 1 until November 15. The funding restriction resulted in a suspension of efforts to recruit and hire new partnership specialists in the RCCs. According to several regional directors, some of the best prospects for partnership specialists were no longer available after the delay, having found jobs elsewhere. As a result, the first round of hiring for partnership specialists was not completed until January 1998, over a month behind schedule. The initial round of training was not completed until late February, coinciding with the mailing of LUCA invitation letters that notified all local/tribal governments about the city-style LUCA program and invited them to register formally for the program. The delayed training precluded the use of partnership specialists to begin outreach ahead of the letters.

Even though the partnership specialists are responsible for recruiting the local/tribal government officials, the calling and follow-up to the initial invitation letter could not begin until March.

Partly because of this, only 18 percent of local/tribal governments had replied to the letter by the middle of March. As more partnership specialists have been hired and trained, more contact with local/tribal governments has occurred. The intense level of activity required of partnership specialists to recruit LUCA participation after the slow initial response by local/tribal governments has limited the specialists' ability to begin preparing other local and media outreach efforts for 2000. Response rates are about 67 percent, as of early July 1998, with over half of those having chosen to participate in the program.

One indication of how the planning for LUCA has been delayed is that a brochure the bureau produced describing the city-style LUCA program did not become available for distribution until late May, and is being mailed only to governments that have already expressed an interest in participating in LUCA. Partnership staff in the field have told us that their recruiting work would have been easier and some jurisdictions may have been convinced to participate earlier, had the brochure been available earlier. Among other things, the brochure states:

“If a jurisdiction does not have the staff or financial resources to do the [local] review [of addresses] itself, it can designate another willing agency, such as a regional planning commission or a county planning department, to do the review for it.”<sup>1</sup>

This brochure is an excellent example of the type of resource material local/tribal governments need early in the process so that they can judiciously determine whether they *can* and *will* participate in LUCA.

It may never be possible to isolate the impact of the delayed early outreach and follow-up to the LUCA invitation letter. Clearly, however, another continuing resolution this fall could have potentially disruptive effects on the LUCA schedule and program for 2000.

In addition, the funding restriction of the continuing resolutions prevented the bureau from hiring temporary data entry clerks to enter addresses and digitize maps from the dress rehearsal LUCA, as planned. After boxes of forms completed by local/tribal liaisons had been initially shipped to the bureau's central data processing center in Jeffersonville, IN, to be entered by the clerks, the forms had to be shipped to headquarters, where the staff of the Geography Division entered the data themselves. None of the staff from the Geography Division or the Geography Branch of the Field Division that we spoke with believed that this deviation from procedures contributed significantly to any other implementation problems during the dress rehearsal or slowed the preparations for 2000. However, the immense scale of operations planned and

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<sup>1</sup> *The Census Bureau's Local Update of Census Addresses Program - An Address List Review Opportunity for Areas with House Number and Street Name Mail Delivery*, p. 4.

volume of data expected for 2000 will make it impossible for headquarters staff to serve as a backup to a temporary workforce for data entry for 2000. A funding restriction for fiscal year 1999 or 2000 similar to the one contained in the 1997 continuing resolutions could compromise the bureau's ability to carry out the decennial census.

We believe that the bureau should explicitly identify those operations that would be directly affected by any delays or limitations in funding due to possible continuing resolutions in 1998 or 1999. For example, address listing is scheduled to be underway on October 1, 1998, and the listing, data entry, and other aspects of that operation are susceptible to funding delays, as could be the data entry and processing of the city-style LUCA suggestions. Significant delays or disruptions of these and other operations could impact the bureau's readiness to carry out the census itself. The bureau should develop contingency plans to carry out specific critical operations under scenarios of delays in funding with the goal of minimizing the adverse impacts on subsequent operations. Also, in the event that a continuing resolution becomes necessary in the fall of either 1998 or 1999, we would recommend that the bureau notify the appropriate congressional committees of any potential impact that funding restrictions within a continuing resolution might have on the planned LUCA operations.



In its response, the bureau provided a list of operations that it believes could be affected by any delays or limitations in funding due to possible continuing resolutions for fiscal year 1999 or 2000. In our draft report, we asked the bureau to develop contingency plans to carry out (all of) the affected operations under various scenarios of delays in funding with the goal of minimizing the adverse impacts on subsequent operations. In its response, the bureau maintained that developing contingency plans for such circumstances would not be possible and described some of the complex interdependencies among critical operations. While a contingency plan for all interrelated operations may not be feasible or warranted, planning for delays in certain specific operations should be done, as the bureau's response to our fourth recommendation clearly illustrates. We maintain our recommendation that the bureau should continue to plan for the possibility of continuing resolutions that could otherwise disrupt key census operations.

## II. LUCA Resource Planning and Management Can Be Improved

Managing the cost, ensuring the timeliness, and coordinating the implementation of address list building activities are critical and complicated responsibilities of the bureau. Over 39,000 local/tribal governments could be involved, and 12 regional census centers have to manage several interrelated operations carried out in three waves. The bureau will employ over 24,000 workers in support of LUCA and other address list building activity during the 15-month period before the deadline for local/tribal governments to file address change appeals with OMB in September 1999. In addition to the regional census centers, staff in at least three different bureau directorates will have responsibility for some aspect of the address list building process. Because MAF is critical to the entire census, the timely coordination of the many MAF processes is vitally important.

The bureau has already developed several tools to help manage this effort. For example, the bureau relies on a Master Activity Schedule as a tool to help integrate the various decennial operations and to help highlight conflicting constraints and flag possible ripple effects of delays in early critical operations. The bureau recently added the detailed processes for LUCA into the schedule. In addition, the Assistant Director for the Decennial recently conducted a decennial design overview that was intended, in part, to flag any remaining design issues that might need additional resources or management attention. Finally, regional officials have participated in conference calls with headquarters LUCA officials to remain abreast of the varying regional experiences with LUCA operations in the field. Yet management is still challenged to prevent additional delays and further reduce costs while preparing MAF.

### Projecting regional LUCA workloads

In addition to recruiting local/tribal participation in the program and providing initial bureau reviews of changes submitted under the program, the bureau intends to ensure that adequate training is provided to local/tribal representatives to carry out the local review of their addresses. Some local/tribal governments will also require additional technical assistance regarding general geographic nomenclature, differences between the map lines the bureau uses for enumerating versus for tabulating, and other locale-specific geography issues. However, some regions report that their uncertainty about the workload to be generated by such technical assistance requests from local/tribal governments is hampering their ability to plan their operations and causing concern about their ability to meet all requests during peak demand periods.

The human resource requirements to support training and requests for technical assistance are not known, because they depend on the number of governments participating in LUCA, the extent of local review, and the number of suggested address changes submitted. The concern about not having the resources to fully support the possible LUCA demands was raised earlier

this year by the U.S. General Accounting Office, the bureau, our office, and others.<sup>2</sup> Failing to provide fully the intended support could have ripple effects on other aspects of the census, including MAF quality, enumeration costs, and public perception of bureau attempts to foster local/tribal partnerships.

The bureau should undertake more specific regional resource need and workload assessments, perhaps in conjunction with its cost and resource model, using current data on the sizes and numbers of governments participating in LUCA. Revised workload projections may enable some of the regional census centers to plan contingency technical assistance support arrangements, such as contracts with technical geography experts within their regions, in addition to current efforts to partner with other organizations in the states.

#### Managing LUCA partnership resources

During the early phases of the three local review operations (map review for non-city-style, and LUCA for both city and non-city styles), a large workload requirement appears to exceed what some of the regions can provide. As a result, according to regional officials, some of the planned phone calls to follow up on the local review invitations will not be made, the quality of LUCA training may vary within and possibly across regions, and as a result, the experiences that individual government jurisdictions have with the LUCA partnership experience may vary.

According to bureau officials from the Kansas City and Denver regions, the relatively large number of local/tribal government units in their regions precludes them from being able to provide the same level of services to each governmental unit. Officials in other regions have also reported to us that they need more partnerships specialists to carry out their LUCA and other partnering responsibilities. Both the city-style LUCA and non-city-style map review processes require the regions to follow up with every government that did not respond to the invitations to participate. And for those governments choosing to participate, the regions are having to schedule and facilitate LUCA training. The Kansas City and Denver regions did not have enough staff trained in LUCA to make all the necessary calls. Although most other regions expect to be able to provide the necessary local/tribal training from their respective technical teams of geographic specialists these two regions may have to draw on staff from outside their pool of technical specialists. Furthermore, the adverse impact on non-LUCA-related partnership

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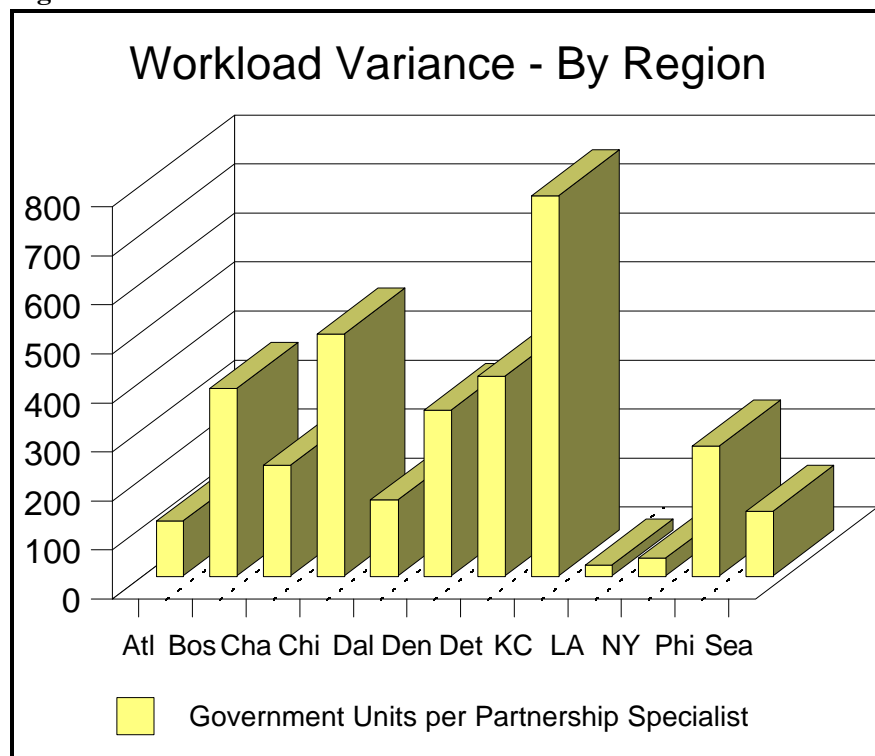
<sup>2</sup> See, for example, *2000 Decennial Census: Address-Building Program May Become More Complex, Costly, and Counterproductive* (ESD-9608-8-001, March 1998), Department of Commerce Office of Inspector General or *2000 Census: Preparations for Dress Rehearsal Leave Many Unanswered Questions* (GGD-98-074, March 1998), U.S. General Accounting Office.

activity will vary regionally when LUCA activity begins in the regions for the non-city-style areas later in 1998 and draws again on partnership specialists.

The resources available to each region for these operations do not appear to be distributed in proportion to the magnitude of the tasks in each region. According to bureau officials, the boundaries of the regions are determined largely to ensure an even distribution of the number of housing units among the regions. Because resource allocations depend to a great extent on the number of housing units, the number of partnership and geographic specialists varies relatively little by region.

Although the number of government units in a region is not a good indicator, by itself, of the partnering workload throughout the entire 2000 Decennial Census process, the number of government units in a region *is* a good measure of (1) the number of follow-up phone calls that must be made for invitations in a region and (2) the number of participants that might take part in initial LUCA training sessions. The number of governmental units in each region varies immensely, from about 350 to about 8,500 units; thus the number of government units per partnership specialist (see Figure 4) also varies immensely by region.

Figure 4



The regions with a high ratio of governmental units to partnership specialists are the same regions that are having the most trouble making and sustaining personal contact with local/tribal governments throughout the LUCA program. With regard to geographic specialists, they are fewer in number, but they have a similar workload distribution across regions.

We believe that the bureau needs to take steps to ensure that (1) the telephoning and training burdens of the regions containing more governmental units are shared beyond the respective region, (2) the associated workload is spread out over a longer time period, or (3) such regions develop new methods or are provided additional resources, on at least a temporary basis, for carrying out these functions. The use of additional short-term contract employees and/or phone banks could be considered along with the possibility of moving the start date of the non-city-style LUCA program ahead to further spread out the invitations and planned staggered participation in the program. In addition, the bureau should prepare contingency arrangements in case local demand for LUCA support exceeds the resources available in a particular region.



In its response, the bureau maintains that the problems we have identified will be resolved by (1) increases in partnership and geographic specialist staffing planned for fiscal year 1999 and (2) the availability of two toll-free local/tribal government support services. While we believe that the staff increases described are necessary to support the LUCA program, and that the toll-free services may provide a useful method for local/tribal governments to ask for more information, the bureau has not described how it has (1) provided regional census centers with better workload projections or (2) identified ways to satisfy peak demands on staff to make telephone calls and provide training to local/tribal governments or make arrangements when local demand may exceed regional capability. The bureau's action plan should provide us with additional information about how it will project regional work loads and how it may arrange to overcome possible regional limitations on their ability to make telephone calls or provide training.



### **III. Steps Needed to Ensure Equitable Treatment of City-Style LUCA Suggestions**

The address listing and block canvassing operations, as planned for 2000, have long been critical components in the bureau's plan to build complete address lists. With the disappointing results from PALS, the disappointing preliminary results from efforts to rely on the Postal Service file, and the inefficiencies in the dress rehearsal address listing operation, the changes the bureau has made in its address list building strategy have further increased the importance of address listing and block canvassing. Yet delays in the implementation of the LUCA program for city-style areas are partially offsetting the increased usefulness of block canvassing. The bureau should take steps to maximize the return from these operations and, in particular, clarify how it will reconcile the LUCA suggestions submitted by local/tribal governments after block canvassing has been completed in their respective areas.

Block canvassing has become, to a great extent, a data quality safety net for city-style areas in the process of building the address list. While none of the current address list building steps are perfect substitutes for others and all contribute to increasing the quality of MAF, the bureau has argued that 100 percent block canvassing is necessary to ensure the uniform quality of address data. This is particularly true for jurisdictions where local suggestions will not be provided through the LUCA program or the now abandoned PALS.

While block canvassing will provide a transparent field verification for the city-style LUCA address suggestions received by the bureau's deadline, it will also provide the bureau with its only "ground truthing" of addresses in city-style areas before the planned Postal Service casing check. Similarly, address listing provides the bureau with the only visual check of the existence and location of housing units before the attempted delivery of questionnaires in non-city-style areas in jurisdictions not participating in LUCA. In addition, block canvassing and address listing may be the only operations to identify multiple living quarters, frequently illegal, that exist in some housing units. Finally, block canvassing, now scheduled to take place after LUCA, is the only operation that can identify duplicate addresses, regardless of their source. In recognition of the importance of both operations, the bureau has added a second crew leader, as a quality assurance specialist in the field, to each team of listers for both block canvassing and address listing.

LUCA program officials had maintained that with city-style LUCA taking place before block canvassing, there would be no need for the separate cost for a field verification of city-style LUCA, which was planned under the initial address list building strategy. But with the slippages in LUCA implementation, it is unlikely that the bureau will receive all LUCA suggestions before block canvassing is scheduled to begin in each jurisdiction. This may result in some suggested LUCA additions not being incorporated into the printed address lists canvassers work from during block canvassing. While the temporary employees used during the block canvassing

operation (1) would not ordinarily know which addresses have been suggested by LUCA and (2) are supposed to independently add or delete addresses, prior bureau evaluations have indicated that a given existing address is more likely to be on the address list at the end of the operation if it was also there before the operation began. Thus, if the bureau relies solely on the block canvassing operation to provide verification data for LUCA suggestions, the quality of the bureau's verification, reconciliation, and decision to accept or reject LUCA suggestions may vary by whether suggestions have been received in time to be included on the address lists used in block canvassing.

In addition, given that the criteria for accepting or rejecting LUCA suggestions during the reconciliation operation are not yet defined, there is a risk that certain factors may inappropriately influence decisions to accept or reject suggestions. For example, faced with a discrepancy between a block canvassing result and a LUCA suggestion, a bureau official may be affected by the subjective appearance or credibility of the submitting governmental unit. Or the quality of the review individual suggestions from a government might receive could vary with the relative work load the bureau's reviewing officials face at that time.

During our review, bureau officials had discussed with us the possibility of conducting a separate field verification operation for these late LUCA suggestions. But there are steps the bureau can take besides mobilizing a separate field verification operation--an operation that has not yet been planned or budgeted for and that may not fit into decennial time lines. For example, some flexibility may remain in the block canvassing schedule for areas within the larger jurisdictions or in the assignment of jurisdictions to particular waves. If the bureau arranges to receive LUCA suggestions from a larger city on a flow, or small batch, basis as the results become available rather than all at once, the bureau might be able to receive suggestions for some areas in time to verify the addresses in those areas during the current schedule for block canvassing. In addition, the bureau can develop verification and reconciliation criteria and procedures that ensure all LUCA suggestions are treated equitably, regardless of whether they are received before or after block canvassing has begun.



In our draft report, we had recommended that the bureau minimize the need for a separate city-style field verification operation. In subsequent discussions between OIG and bureau representatives and in its response to the draft report, the bureau has maintained that it "does not intend to conduct 'additional' field work to resolve discrepancies" between block canvassing and late LUCA suggestions but can meet the intent of our draft report's recommendation by other means. Pursuant to those discussions, we revised our recommendation and instead ask the bureau to ensure that all city-style LUCA suggestions are considered equitably, regardless of when they are submitted. In its response, the bureau goes on to explain that the only field work planned to resolve discrepancies between block canvassing results and LUCA suggestions will

be conducted during the reconciliation operation. The bureau's response also describes a proposed plan under consideration that would involve additional field work only for selected samples not resolved by the reconciliation operation.

We appreciate the attention the bureau has given our concern about the equitable treatment of LUCA suggestions. Yet we are still concerned that the field work in the reconciliation operation, as described in the bureau's response, may incur unintended cost growth if large numbers of city-style LUCA suggestions are received too late to be included in block canvassing. We look forward to receiving more information in the bureau's action plan regarding steps the bureau is taking to ensure equitable treatment of LUCA suggestions, including (1) developing criteria and procedures for initiating any validation field work for LUCA outside block canvassing operations; (2) using any flexibility that may remain within the block canvassing scheduling or operation to increase its coverage of LUCA suggestions; and (3) providing status updates on proposals, like the one described in the bureau's response, to validate or reconcile suggestions not received in time for block canvassing.

## CONCLUSIONS

The bureau is attempting to implement a local review program in fulfillment of the Census Address List Improvement Act of 1994. However, opportunities have been missed to encourage participation in the program due to a combination of factors, including:

- the delayed hiring of partnership specialists, resulting in delayed outreach and follow-up calls to the local review invitation letter, and
- the reengineering's revised schedule, which resulted in the loss of nine months from the planning cycle of LUCA for 2000.

In addition, the dress rehearsal experience uncovered other problems in the LUCA design that diverted resources from planning LUCA for 2000. But, the experience with those problems led to other improvements in the LUCA design, such as providing local/tribal governments more detailed justifications when rejecting address changes they may suggest.

Planning and preparing for the decennial is a complex operation with competing priorities. A non-city-style LUCA brochure, comparable to the one recently prepared for city-style LUCA, would be a useful partnering tool to have in the hands of partnership specialists long before invitations for the non-city-style program are mailed out. But virtually no non-city-style LUCA activities have been planned in detail yet.

The concerns expressed previously by the U.S. General Accounting Office, our office, and others—that the potential demand on the regions stemming from a high level of local/tribal government participation may exceed bureau capabilities—are also shared by some bureau officials in the regions. This may already be resulting in regional variations in the treatment that local/tribal jurisdictions are receiving through the LUCA program.

We believe that unless the bureau can demonstrate (perhaps with preliminary LUCA feedback) that MAF quality is not improved by LUCA, the bureau needs to do whatever it reasonably can to (1) improve the participation of local/tribal jurisdictions and (2) strengthen its ability to respond fully and promptly to any level of participation it may get. The bureau may also find additional ways to foster partnerships within the address list building processes, e.g., with local/tribal involvement in canvassing or field verification operations. The benefits from doing so will extend beyond improvements in MAF to include:

- reinforcement of local/tribal government interest in supporting other census operations (e.g., supporting local partnership efforts, visible public support during non-response follow-up operations),

- reduced likelihood of local/tribal government challenges to MAF accuracy through the OMB-managed appeals process,
- increased “buy-in” by local/tribal governments to census results, and
- greater general public confidence in the bureau’s competence to carry out the decennial census.

## RECOMMENDATIONS

We recommend that the Acting Director of the Bureau of the Census take the appropriate steps to:

1. Identify the operations that would be directly affected by delays or limits in funding due to possible continuing resolution(s) in the fall of 1998 or 1999 (for fiscal years 1999 or 2000). Develop contingency plans to carry out the affected operations under scenarios of funding delays or limitations (see page 12).
2. Undertake more specific regional resource need and workload assessments, perhaps in conjunction with the bureau's cost and resource model using current data on the actual sizes and numbers of governments participating in LUCA, and provide the regional census centers with better workload projections (see page 14).
3. Identify ways to satisfy the temporary LUCA regional telephoning and training needs in the regional census centers and prepare contingency arrangements in case local demand for LUCA support exceeds regional capability (see page 16).
4. Ensure that all city-style LUCA suggestions are treated equitably, regardless of the time the suggestions are submitted to the Bureau, the size of the governmental unit submitting the suggestions, and the number of suggestions submitted (see page 18).

APPENDIX - BUREAU RESPONSE TO DRAFT REPORT



UNITED STATES DEPARTMENT OF COMMERCE  
Bureau of the Census  
Washington, DC 20233-0001  
OFFICE OF THE DIRECTOR

MEMORANDUM FOR Jill Gross  
Acting Assistant Inspector General  
for Inspections and Program Evaluations

Through: Robert J. Shapiro *RJS*  
Under Secretary for Economic Affairs

From: James F. Holmes *James F. Holmes*  
Acting Director

Subject: Draft Inspection Report: Bureau of the Census --  
Additional Steps Needed to Improve Local Review  
Program for the 2000 Decennial Census (IPE-10756)

This is in response to your memorandum dated August 18, 1998, transmitting the above referenced draft inspection report, which issued the following recommendations that you believe "will help the Bureau better control the cost of field operations and improve local review programs." Please note that Recommendation 4 was revised after a meeting between Bureau staff and representatives from the Inspector General's Office held on September 16, 1998. The original version of the recommendation, followed by the revision submitted by the Office of Inspector General, appears here along with the Bureau's response.

**1) Identify the operations that would be directly affected by delays or limits in funding due to possible continuing resolution(s) in the fall of 1998 or 1999 (for fiscal years 1999 or 2000). Develop contingency plans to carry out the affected operations under various scenarios of funding delays or limitations.**

A. The following operations would be affected by delays and limits in funding for fiscal year 1999:

- 1) Address Listing, Waves 2 and 3.
- 2) Data capture of Address Listing results, Waves 1, 2, and 3.
- 3) Scanning of map spots/digitizing feature updates from Address Listing. Waves 1, 2, and 3.
- 4) Opening CFOs for Wave 1 of Block Canvassing.
- 5) Creating and printing of maps for Block Canvassing, Wave 1.
- 6) Printing of listings, labels, and assignment directories for Block Canvassing, Wave 1.

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- 7) Assembling address registers for Block Canvassing, Wave 1.
- 8) Recruiting/hiring staff for Address Listing, Waves 2 and 3, Block Canvassing, Wave 1.
- 9) Keying updates from LUCA 1998 participants.
- 10) Processing LUCA responses and merging into the Block Canvassing address files.
- 11) Conducting training workshops for LUCA 1999 participants.
- 12) Preparing/providing LUCA 1999 participants with maps, listings, and block summaries to conduct their review.

It is not possible to develop contingency plans to carry out these operations under various scenarios of funding delays or limitations. Delays in the completion of Address Listing will delay the start of Address List Review 1999. Delays in Address List Review 1999 will not allow us to capture and incorporate adds in time for the labeling of questionnaires delivered during the Update/Leave operation. Delays in Block Canvassing will affect our ability to provide timely feedback to local government entities on their changes to our census address list, our ability to allow for the entities to appeal our decision, and our ability to incorporate these changes in time for the labeling of the mailout questionnaires.

- B. For fiscal year 2000, delays and limits in funding will affect our ability to capture the results from late reconciliation and update the census address list. We also would be unable to produce final determination materials for entities involved in the late reconciliation, submit documentation for any late appeal, and incorporate the decision of the appeals agency into the census address list.
- 2) *Undertake more specific regional resource need and workload assessments, perhaps in conjunction with the Bureau's cost and resource model using current data on the actual sizes and numbers of governments participating in LUCA, and provide regional census centers with better workload projections.*

**Problem Resolved:** Regional staff have been given additional authority to increase staffing levels to meet increased LUCA work load needs (see response to No. 3). Headquarters field management will work with the regions on a case-by-case basis to redistribute work or staff resources as needed, to meet increased LUCA work load capacity needs.

- 3) *Identify ways to satisfy the temporary LUCA regional telephoning and training needs in the regional census centers and prepare contingency arrangements in case local demand for LUCA support exceeds regional capability.*

**Problem Resolved:** The Census Bureau has identified ways to satisfy temporary telephoning and training needs associated with the LUCA program, particularly as it pertains to increased LUCA governmental support needs. Specifically, it has established two, toll-free, help desk telephone lines to handle inquiries from the staff of participating



government and tribal entities. The toll-free Technical help desk line is available from 8:00 a.m. (ET) until 10:00 p.m. (ET) Monday-Friday; the toll-free General Questions help desk line (which routes calls to staff in specific RCCs, based on the caller's area code) is available from 7:30 a.m. (ET) until 4:30 p.m. (ET) Monday Friday.

The management staff in RCCs have authorization to hire 60 additional Geographic Specialists for fiscal year 1999, for a total of 83 specialists across the 12 regions. The distribution of specialists per region will reflect LUCA government participation information to date and regional work load estimates.

The partnership staff in the RCCs provides assistance during specific phases of the LUCA program, including promotion, follow-up telephone contact, and LUCA workshop training for participating governmental and tribal entities. During fiscal year 1999, the Field Division's partnership program plans to hire 120 additional Partnership Specialists to work in the regions. The increase in partnership staff will provide regional management staff and field headquarters, the flexibility it needs to adjust staff resources and work on a contingency basis should LUCA support needs exceed regional capacity.

**4) *Minimize the need for a separate city-style field verification operation.***

As noted above, the OIG submitted the following revision subsequent to a meeting between Bureau staff and representatives from the OIG.

**4) *Ensure that all city-style LUCA suggestions are treated equitably, regardless of the time the suggestions are submitted to the Bureau, the size of the governmental unit submitting the suggestions, and the number of suggestions submitted.***

*In responding to this revised recommendation, we request that the Bureau clearly identify under what circumstances the Bureau would conduct additional field work to resolve discrepancies between block canvassing results and late LUCA suggestions. Would the Bureau sample the LUCA discrepancies to test their reliability? Also, what would be the specific criteria for initiating additional field work? In addition, how will the Bureau ensure that local governments are given an appropriate opportunity to question any Bureau decisions it does not agree with during the "feedback and reconciliation" phase?*

The LUCA program for areas that mostly use house number/street name addresses for mail delivery (also known as "Address List Review '98" or "LUCA '98") has included the following operational steps since the Reengineering Plan was adopted approximately one year ago:

- Invite all eligible local and tribal governments to participate. (Completed January-March 1998)

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- Obtain signed Confidentiality Agreements from all local and tribal officials who will have access to the MAF addresses for their community in those governments interested in participating. (Completed April-July 1998)
- Prepare and ship the materials required for participants' review. (Scheduled for May-October 1998)
- Allow three months for participants to perform their review. Based on the current delivery schedule, the last participant responses should arrive at the Census Bureau by the end of January 1999. (Even allowing for the potential that some participants will submit their suggestions "late"—beyond the allowed three month review period—the last suggestions should arrive by March 1999.)
- Add participants' suggestions (adds, deletes, corrections) to the MAF and the TIGER data base.
- Validate participants' suggestions based on the Block Canvassing operation<sup>1</sup> (defined in the March 1997 *Federal Register* notice). (Scheduled for January-May 1999)
- Provide "Feedback" (defined in the March 1997 *Federal Register* notice) to all participants telling them which of their suggestions the Block Canvassing operation confirmed and which of their suggestions the Block Canvassing operation did not find. (Scheduled for March-August 1999)
- "Reconcile" those participant suggestions **not** found by the Block Canvassing operation that the participants still believe exist (defined in the March 1997 *Federal Register* notice). (Scheduled for May-September 1999)
- Provide "Final Determination" listing to all participants showing which of their "final" suggestions the Reconciliation operation confirmed to exist and which of their "final" suggestions the Reconciliation operation did **not** find (defined in the March 1997 *Federal Register* notice). (Originally scheduled for April-August 1999; may extend into November 1999)

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<sup>1</sup>The Census Bureau's original schedule and plan for this operation assumed that all participants would have their LUCA review materials early enough that their three-month review period would end before MAF extracts were needed to produce the address listings and related maps for the Block Canvassing operation. Delays in the preparation and shipment of LUCA review materials make receipt of all participants' suggestions before the Block Canvassing operation unlikely. Regardless of whether or not a participant's suggestions are added to the MAF before the Block Canvassing listings and maps are prepared, those suggestions will be validated by the Block Canvassing results, and the confirmation of existence or nonexistence will be provided on the "Feedback" listings during the scheduled March-August 1999 period.

- Participants still wishing to dispute the Census Bureau's findings can file an "Appeal" (defined in the March 1997 *Federal Register* notice). (Scheduled for April-December 1999)

The Census Bureau does not intend to conduct "additional" field work to resolve discrepancies between Block Canvassing results and late LUCA suggestions. No LUCA suggestions should be received after January 1999 (the end of the latest three-month review period for participants who receive their review materials in October 1998). Even the potential that there will be some "late" LUCA suggestions (those from participants who exceed the three-month review period) means that all suggestions should be in to the Census Bureau by March 1999, which is well before the scheduled provision of "Feedback" materials. The always-scheduled Reconciliation operation is the only field work planned to resolve discrepancies between Block Canvassing results and LUCA suggestions, including those received late or on time.

The Census Bureau is considering a proposal to validate only a sample of the participant suggestions that are not resolved by the time of the Reconciliation operation, and then make a "lot" acceptance or rejection decision based on that sample. Under the proposed plan, all participant suggestions in accepted "lots" will be added to the MAF and processed along with all other MAF addresses through the Census 2000 cycle; all participant suggestions in rejected "lots" will be dropped from the MAF and not included in further Census 2000 processes. The latter would be subject to reversal under the appeal process described in the March 1997 *Federal Register* notice.