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OIG Flash Report

Census 2010: Problems Encountered in the Large Block Operation Underscore the Need for Better Contingency Plans (OIG-19171-02)

Census Response

Because of our experiences during Address Canvassing in the 2008 Dress Rehearsal with the Harris handheld solution, large block listing emerged as an operational issue that had to be addressed. In March 2008, the Census Bureau conducted an alternatives analysis for a contingency to the Large Block HHC issue and selected the use of an already field-tested and proven solution -- the Automated Listing and Mapping Instrument (ALMI) in use since 2003. As part of the contingency planning, the Census Bureau identified and documented a number of limitations, informing both subsequent ALMI testing as well as operational workarounds. Implementing an operational, system-related contingency, by definition, increases risk and consumes valuable resources. Given the tight deadlines and scarce resources, we are pleased with the large block listing and ALMI performance.

RESPONSES TO OBSERVATIONS

Observation 1: Inconsistencies with primary address canvassing procedures increased the likelihood of errors.

We agree that there were inconsistencies in the procedures prescribed for large blocks and those for the primary Address Canvassing operation. Use of the ALMI certainly can be expected to result in different types and frequency of errors than does the HHC. But that at this point, we have no data to indicate that the likelihood of errors was increased by the use of the ALMI.

Observation 2: The delayed quality control operation prevented early identification of poorly performing listers.

We agree that delays associated with the Quality Control (QC) component of the large block operation prevented the early detection of poorly performing listers. However, although the identification of poor performing listers is an important part of the QC, the main reason we conduct a QC operation is to check the quality of the work and make necessary repairs. The QC for the Large Block operation, like Address Canvassing, followed an AOQL design, which provides strict control on the outgoing quality. So, the delays may have resulted in additional rework because poor performers were able to work more assignments, but the final quality of the work was not negatively impacted. In addition, while we did experience delays, the cause was not multiple assignment areas, but rather because the ALMI was not designed to accommodate a block-based QC operation (DAAL uses a Field Representative-based selection process for its QC operation).

Observation 3: The depiction of boundaries on ALMI maps affected the accuracy of map and address updates.

While we agree that this could be true, the real problem with boundaries was the complication that ALMI implementation is based on tabulation blocks versus collection block geography, used by the HHCs. Tabulation blocks are what data products are based on, while collection blocks represent the geography configuration for which we collect information. Tabulation blocks are on average smaller than collection blocks by about a factor of six. Further complicating the issue is that determining collection geography and block sizing is dynamic and converting tabulation blocks to collection blocks is not always straightforward. This has resulted in the generation of varying counts of large blocks, assignment areas, and housing units as well as undoubtedly producing some boundary errors. This confusion was exacerbated due to the fact that collection geography and block sizing is dynamic as information becomes available and that we were getting changing performance information from Harris.

RESPONSES TO RECOMMENDATIONS

- 1. OIG recommendation: Immediately complete contingency plans for future critical 2010 operations. Ensure these plans provide enough detail to ensure the accuracy, efficiency, and stability of the operation.**

Response: For the 2010 Census, risks are managed at the program and project levels. Currently there are 24 program-level risks, all of which have mitigation plans. In addition, the Risk Review Board has identified 11 program-level risks as requiring contingency efforts. While not as far along as we wish to be, based on priorities, we have established a schedule for the development, review and approval of the program-level contingency plans.

- 2. OIG recommendation: Conduct a quality review of the address list for areas where boundaries are not based on physical features to determine if housing units have been missed or incorrectly located.**

Response: The Census Bureau concurs that there could be errors related to the positional accuracy of a map spots as a result of collection blocks being used on the handheld computers, and tabulation blocks used in the ALMI. In Census 2000, we did not collect map spots in city-style address areas. Our evaluations showed that 3.65 percent of housing units in collection blocks split for tabulation purposes were allocated to the wrong block, which represented 0.37 percent of the entire nation. Large blocks represent one-tenth of one percent of all blocks nationwide. Because ALMI is collecting map spots in city-style areas, we anticipate that accuracy should be improved in these areas over 2000. Given the small gain and great risk and cost, we cannot justify an ad hoc operation to specifically address potential issues related to the difference in the use of tabulation block and collection blocks. However, for the rest of the nation, given that we are collecting GPS coordinates, we have the potential for significant improvement in block split situations.

- 3. OIG recommendation: Consider using handheld computers for their GPS locating capacity for operations such as update/leave, update/enumerate, and non-response**

follow-up to take greater advantage of the technology developed under the FDCA contract and achieve a more accurate address list and enumeration.

Response: We did consider reusing the HHCs, but discarded it as not being feasible. These devices cannot be used as stand-alone mapping devices without the Harris infrastructure and without a major redesign to the Address Canvassing application or the development of a brand new application. The use of these HHCs for these purposes would be subject to all NIST security controls for dealing with Title 13 data. Repurposing these devices as locating devices would require us to go through a new Certification and Accreditation package and would require changes to multiple sets of procedures and training manuals, adding significant risk to the 2010 Census.