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PROGRESS OF REENGINEERED 2010 CENSUS

HEARING

BEFORE THE

SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES

OF THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

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PROGRESS OF REENGINEERED 2010 CENSUS

TUESDAY, APRIL 24, 2007

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES,
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,
Washington, DC.

The subcommittee met, pursuant to notice, at 2 p.m. in room 2247, Rayburn House Office Building, Hon. Wm. Lacy Clay (chairman of the subcommittee) presiding.

Present: Representatives Clay, Turner, and Maloney.

Staff present: Tony Haywood, staff director/counsel; Alissa Bonner, professional staff member; Jean Gosa, clerk; Nidia Salazar, staff assistant; Jim Moore, minority counsel; Jay O'Callaghan, minority professional staff member; John Cuaderes, minority senior investigator and policy advisor; and Benjamin Chance, minority clerk.

Mr. CLAY. The Subcommittee on Information Policy, Census, and National Archives will come to order.

Good afternoon, and welcome to today's hearing on preparations for the 2010 census.

We will probably be interrupted within the first 15 minutes by a series of votes on the House floor, so at that time we will recess and then reconvene.

This hearing is a first in a series of hearings to examine the Census Bureau's ongoing efforts of conducting a complete and accurate count of the Nation's population. With the decennial survey less than 3 years away, the 2008 dress rehearsal is rapidly approaching. Preliminary testing of new technology and procedure are already underway in two cities. We are at a critical stage of preparations for 2010.

The first census was conducted 217 years ago. Article 1, Section 2 of the U.S. Constitution mandates an actual enumeration of the U.S. population for the purpose of apportionment of congressional seats. Information derived from census data is now used to allocate over $200 billion yearly in Federal financial assistance.

In addition, State and local government agencies, businesses, academia, nonprofit organizations, and the members of the general public rely on census data to make informed decisions. Therefore, it is imperative that the data be complete, accurate, and secure.

A successful census will depend upon combining excellent planning with appropriate execution. The Census Bureau used this formula to improve its overall response rate for the 2000 census. Many factors contributed to their success, including working more

effectively with State, local, and tribal governments and partnering with community-based organizations to reach traditionally undercounted populations.

Still, the Bureau found that there were areas for improvement. According to Census Bureau estimates from 2000, there were 700,000 duplicate addresses, 1.6 million vacant housing units misclassified as occupied, 1.4 million housing units not included, 1.3 million housing units improperly deleted, and 5.6 million housing units incorrectly located on census maps. The result was a significant undercount, which prompted Congress to call for an overhaul of the census process.

In 2001 the Census Bureau began the process of developing a reengineered 2010 census. We are here today to receive a progress report on the implementation of that design.

In conducting census oversight, this subcommittee must also thoroughly assess the Bureau's ability to effectively monitor contracts and subcontracts. GAO estimates that $1.9 billion taxpayer dollars will be spent on seven major contracts. The Bureau must have mechanisms in place to ensure that these contracts are monitored for cost and quality control.

It is equally essential that minority-owned businesses have a meaningful opportunity to fully participate in the process. It is imperative the that Census Bureau and its major contractors involve minority firms in the important work of conducting the survey. Making a conscious effort to work with minority-owned businesses will ensure that the 2010 decennial census is truly the most inclusive, complete, and accurate census in our Nation's history.

We have assembled a diverse and distinguished group of witnesses who can provide credible and authoritative assessments of the Census Bureau's reengineered plan for the 2010 decennial census. I want to thank all of our witnesses for appearing before the subcommittee today, and I look forward to your testimony.

Mr. Turner is not here yet, but we will provide him opportunity for an opening statement when he does arrive.

I would like to get the first panel started. Our first panel consists of the Honorable Preston Jay Waite, Associated Director for Decennial Census of the U.S. Census Bureau, and Mathew J. Scire, Director of Strategic Issues for the Government Accountability Office.

Welcome to both of you. Mr. Waite, you may proceed.

Let me ask you both to please stand. It is the policy of this committee to swear in all witnesses before they testify, and I would like to ask you both to please raise your right hands.

[Witnesses sworn.]

Mr. CLAY. Let the record reflect that both witnesses have answered in the affirmative.

Mr. Waite, you may proceed.

STATEMENTS OF PRESTON JAY WAITE, ASSOCIATE DIRECTOR FOR DECENNIAL CENSUS, U.S. CENSUS BUREAU; AND MATHEW J. SCIRE, DIRECTOR, STRATEGIC ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE

STATEMENT OF PRESTON JAY WAITE

Mr. WAITE. Thank you, Mr. Chairman.

On behalf of the Census Bureau, I would like to thank you and the members of the subcommittee for this opportunity, and would respectfully ask to submit my written testimony for the record.

Mr. CLAY. Certainly.

Mr. WAITE. Today I would like to focus on a few key points at this important moment in the decade. We are rapidly approaching census day. It is now less than 3 years away, and the goals that we established earlier in the decade are clearly in sight.

The goals of the 2010 reengineered census design are to improve accuracy, reduce operational risk, improve the relevance and timeliness of long form data, and to contain costs. We are achieving these goals through an aggressive and comprehensive testing program.

The 2010 census is the best-researched and best-tested census in our Nation's history. To that end, with the support of Congress we have developed a sustained comprehensive testing program in preparation for the 2010 short form only census. We have conducted key tests each year, beginning with national mail-out tests in 2003, as well as a second mailout test in 2005, to assess the questionnaire content and wording. We have conducted major site tests in 2004 and 2006. In 2004, we conducted a test in the Queens Borough of New York City and in three counties in southwest Georgia, focused primarily on using new data collection technologies, including hand-held computers.

We conducted a second major test site in 2006 in Travis County, TX, and in the Cheyenne River Reservation of South Dakota.

These tests are vital to the success of the 2010 census and have served as proving grounds for our expanded automation efforts.

Automation is one of the most important elements of the planned improvements for the 2010 census. We believe it will help us contain costs of field operations, reduce operational risk, and improve geographic accuracy. We are working with the private sector, Lockheed Martin on the automated data collection contract, and the Harris Corp. on automating our field data collection. We are striving to use test proven technologies, most notably the use of handheld computers in the field for data collection.

Based on these efforts, we are confident that automation will be a critical contribution to the overall success of the census. We are taking the experiences we have gained in our tests into the field in 2008 for our dress rehearsal. The sites for the dress rehearsal are in San Joaquin County, CA, and in Fayetteville and nine surrounding counties in eastern North Carolina. We have opened both these local census offices and have begun hiring in preparations for the dress rehearsal.

The dress rehearsal is our last opportunity to ensure that planned procedures and operations tested throughout the decade will function as designed when you are integrated into a full census environment.

As I mentioned earlier that census data 3 years away, it is important also to note that census operations actually are underway. In February of this year, we sent informational letters to each of the over 30,000 governmental units in the United States outlining our plans for the local update of census addresses or LUCA program. LUCA is one of the most important partnerships of the cen-

sus. Working with local governments, we learn of new housing construction, demolitions, and conversions, as well as map feature updates. These additions to our file are fundamental to a complete housing use list and the geographic accuracy of the census.

We have made significant improvements to the LUCA program since 2000. In contrast with the 2000 LUCA program, we are providing more advanced notice, better training, and better instructions. We are conducting LUCA updates prior to address listing, and participating governments will be offered options to partner with us, depending on their needs and capabilities. We believe that this will result in more governments participating, and therefore a more accurate census.

Finally, in response to congressional concerns, governments will be given a longer review period, 120 calendar days instead of the 90 calendar days that we had in census 2000. We will also offer better assistance to local governments to answer their questions and to gauge their process.

Mr. Chairman, the census is a very large and complex undertaking. The funding is necessarily cyclical in nature and the buildup is well underway. As has been the case in past censuses, we will incur major hardships of our funding stream is interrupted by a continuing resolution later in the decade. Should this be the case in fiscal year 2008, I would ask for your help to secure special consideration for the Census Bureau.

To reach every household in America requires the success of a complex series of operations, ranging from LUCA, which enables the accuracy of the mass address file, to a well-planned integration of our automation efforts. Everything needs to occur in sequence in a very short period of time. We believe that we are well on our way to meet that challenge.

The census is a significant investment in our Nation's future, and with your help I believe the 2010 census, with the shortest and simplest questionnaire since 1790, will be a huge success.

Thank you, Mr. Chairman. I will be happy to answer questions.

[The prepared statement of Mr. Waite follows:]

PREPARED STATEMENT OF
PRESTON JAY WAITE, DEPUTY DIRECTOR
US CENSUS BUREAU

The 2010 Census
Before the Subcommittee on Information Policy, Census, and National Archives
Committee on Oversight and Government Reform

24 April 2007

On behalf of the U.S. Census Bureau, Mr. Chairman, I would like to thank the members of the subcommittee for this opportunity to discuss the status and progress of the 2010 reengineered decennial census. We are approaching Census Day—it is now less than three years away—and the goals established earlier this decade are in sight. The goals of the 2010 reengineered census design are to: reduce operational risk; contain costs; improve the relevance and timeliness of the census long-form data; and improve accuracy. To accomplish these goals, we developed an innovative and integrated program which includes three main components:

1. the American Community Survey, the replacement for the decennial census long form;
2. a comprehensive plan to enhance the accuracy the census address list and mapping program, known as the Master Address File (MAF) and TIGER Enhancements Program; and
3. a wide-ranging testing program, which encompassed not only technological, but questionnaire, content, and language testing, to improve the accuracy and coverage of the short form 2010 Census.

Each of these components is integral to the 2010 decennial census program. Their goals are complementary and the success of each component supports the overall success and accuracy of the 2010 Census—which is our most important goal as we proceed to Census Day.

In fact, the 2010 Census is already underway. In February, we sent informational letters to every local government throughout the country, outlining our plans for the Local Update of Census Addresses (LUCA) program. This is an important operation, as well as an important partnership for the census, and supports our key goal to improve the accuracy of the census. Last month, in accordance with the Census Act, we submitted to Congress those subjects planned in the 2010 Census, which include gender, age, race, ethnicity, relationship, and whether you own or rent your home. The 2010 Census form is estimated to take less than 10 minutes to complete, making it one of the shortest and easiest to complete since the nation's first census in 1790. Next year, we will submit the wording of these questions to Congress.

Progress on the Major Components of the 2010 Decennial Census Program
Many efforts over the past years will improve accuracy, including the American Community Survey, which was fully implemented in 2005 for the household portion of the sample and is replacing the decennial census long form. With a sample size of approximately three million households per year, or 250,000 per month, we will be able to provide timely data on a yearly basis to local communities. Last year, we began collecting data in group quarters, such as jails, nursing homes, and college dormitories, fulfilling our last major collection objective in replacing the long form. In 2006, we delivered the first annual data from the American Community Survey for the nation, every state, and every governmental unit with a population of 65,000 or more. In addition, last year we released a special product for the Gulf Coast area affected by Hurricane Katrina. This product demonstrated the power of the American Community Survey in measuring change, showing the changes affecting communities after that devastating natural disaster.

This August we will begin releasing the next set of annual data, which also include data for group quarters, and we will continue to deliver these data every year. In 2008, we will provide data to communities with populations of 20,000 or more, and in 2010 we will deliver these data for census tracts—a full two years before traditional census long-form data would have been available. This not only fulfills the goal of the American Community Survey but also achieves one of the primary goals of the reengineered 2010 census. Providing annual socio-economic data to local communities means they will have more relevant information to evaluate trends and measure change more effectively. Prior to the American Community Survey, data users had to wait 10 years for new local area data. This 10-year data gap hampered the ability to measure key factors in assessing change. For instance, without annual information, education planners could not assess a shift in the demographic composition, potentially missing the growth of young families in a transitional neighborhood. With annual data from the American Community Survey, planners have more current information to make better decisions.

The second component of the 2010 reengineered census program is the mapping and geography component known as the MAF/TIGER Enhancements Program. By correcting and modernizing both the address list information and the TIGER mapping system, we will ensure greater geographic accuracy of the census and enhance our ability to conduct field operations in the 2010 Census, improving census coverage. Geographic accuracy is vital because the census must fulfill two principal requirements: 1) count every person living in America, once and only once, and 2) count every person at the correct address. Each address corresponds to specific geographies: a census block, census tract, place, county, and state. Ensuring the accuracy of the addresses helps guarantee the fair distribution of political representation and resources, as they are distributed according to geographies — states, cities, towns, census tracts, and blocks.

With the MAF/TIGER Enhancements Program, we are working with the private and public sectors to modernize and enhance the capabilities of the nation's road map. Important objectives of the program include realigning the street centerlines in the TIGER mapping system in order to take advantage of GPS capabilities, modernizing the processing system, and expanding geographic partnerships. We are modernizing the MAF/TIGER processing system, replacing the homegrown system developed more than 25 years ago before the information and technology revolution, with a Commercial-Off-the-Shelf system.

We are working with the Harris Corporation to realign all the U.S. counties by 2008, in time for field operations to conduct address canvassing operations for the 2010 Census. Since 2003, we have completed the realignment for nearly 2000 of the nation's 3,232 counties. By April 2008, we are scheduled to complete the remaining counties in time to conduct the address listing operations. These efforts will enhance our ability to conduct census field operations, including non-response follow-up, and will provide a more flexible integration with other operations. MAF/TIGER tells us where people are living, and not only furnishes us with a list of households to contact, but also provides a reasonable means of organizing our workload and the non-response follow-up operations. We want field representatives to work with accurate maps and to be able to effectively use the handheld devices. Automation is one of the most important elements of the planned improvements for the 2010 Census—we believe it will help contain the costs of field operations, reduce operational risk, and improve geographic accuracy.

We also developed a sustained, comprehensive testing program in preparation for the 2010 short-form only census—the third component of the overall 2010 reengineered census plan—incorporating both major mail-out and field operation tests. Throughout the testing program, we are striving to ensure that we meet the overall goals of the 2010 reengineered census, most importantly to reduce operational risk and improve the accuracy and coverage of the decennial census. We have conducted key tests each year. Beginning with a national mail-out test in 2003 we have studied alternative self-response options and contact strategies, as well as alternative presentations of the race and Hispanic origin questions. In 2005, we conducted a second mail-out test to assess issues such as coverage questions, residence rules, replacement questionnaires, and the design, layout, and wording of race and ethnicity questions and other short form content.

In addition to these tests, we conducted major field tests in 2004 and 2006. In 2004, we conducted a test in the Queens Borough of New York City and in southwest Georgia, focusing primarily on using new data collection technologies. In this test, we also determined we could successfully train enumerators in a short time to make use of the handheld computer devices, which are fundamental to the design of the 2010 Census. We conducted a second major field test in 2006 in Travis County, Texas and the Cheyenne River Reservation in South Dakota. We selected these sites because their characteristics allowed us to answer specific research questions and provided a final opportunity to test methods and technologies in the field before they are integrated in the Dress Rehearsal.

2010 Census Updates
We believe these testing efforts will help us improve the accuracy of the responses, and thereby census coverage. We will take these experiences and the research we conducted thus far into the field with the 2008 Dress Rehearsal. The Dress Rehearsal is our last opportunity to ensure planned procedures and operations will function as designed once they are integrated with one another. The sites for the Dress Rehearsal are in San Joaquin County, California and in Fayetteville and the counties in eastern North Carolina, near Fort Bragg. We have opened the Local Census Offices (LCO) in both locations and started hiring. The address canvassing operations begin next month. We only get one chance to take the census. We need a true rehearsal because we will not conduct untried procedures during the 2010 Census.

We especially are aware of potential risks as we get closer to Census Day and begin actual decennial operations such as LUCA. As I mentioned previously, we sent advance notification letters to every state, tribal, county, and local government throughout the country, in anticipation of sending the actual invitations later this summer. These letters describe the LUCA program and outline key activities. We already are conducting more than 600 LUCA workshops over the next few months. These workshops are intended to answer questions and encourage participation. LUCA is one of the most important partnerships of the census. It is through working with local governments that we often learn of new housing construction, demolitions, and conversions, as well as map updates, which are fundamental to the geographic accuracy of the census. In contrast to the LUCA program for Census 2000, we are contacting local governments and conducting LUCA updates prior to address canvassing. We believe this will reduce confusion and ensure greater accuracy.

Greater accuracy is the primary focus of all of our efforts. This is especially true of the coverage improvement program. The coverage improvement program for 2010 incorporates lessons learned from previous censuses, as well as results from our multi-year research, development and testing program. Much of the housing unit coverage error in Census 2000 resulted from geocoding errors. We believe we will see major improvements that will result from our efforts to update and modernize—from realigning the street centerlines in our TIGER database to using GPS-equipped handheld computers during the address canvassing and non-response follow-up operations. We also believe coverage will be improved through our effort to maintain the MAF over the decade (primarily through work with the U.S. Postal Service), and by making a number of improvements to the LUCA program. In addition, we have conducted extensive testing of ways to better explain our residence rules so the people better understand who should be included or excluded as members of their household for census purposes.

Related to this, we have also tested the use of coverage probes on the questionnaire to help identify households with potential undercounts or overcounts that may result from respondents not understanding the residence rules. Preliminary results indicate these questions can help identify households with coverage errors that we can resolve through follow-up. And as with other censuses, we will conduct coverage measurement evaluations. The 2010 Census coverage measurement program will not only assess the completeness and coverage of the census, but will also provide valuable insights for future censuses.

The 2010 Census will be an important milestone for the Census Bureau. Even as we are incorporating the lessons learned from past censuses, we are embracing new approaches—the American Community Survey, the use of GPS-based technology and automation, the second mailing. And we are seeking the knowledge and experience from a greater range of partners.

In addition to LUCA, where we are engaging local governments to take advantage of their knowledge, we are also engaging the private sector to benefit from their knowledge and experience to make the decennial census program more efficient.

Automation is a key component for the 2010 Census. To successfully achieve this objective, we have enlisted private sector partners to help us build the census data collection infrastructure and to assist the Census Bureau with the integration of its components. Part of our efforts have centered on two major systems, the 2010 Decennial Response Integration System (DRIS) and the Field Data Collection Automation (FDCA) system. Both of these are large information technology contracts, totaling together over $1 billion. We believe our efforts with DRIS and FDCA will result in reduced operational risk and improved accuracy. The purpose of the DRIS contract, which was awarded in 2005 to Lockheed Martin Corporation, is to ensure accurate and protected collection and storage of Americans' data whether by paper form, handheld computer, or telephone. We are confident of this approach based on our experience from Census 2000 when we partnered with the private sector to conduct data capture. We currently are implementing and testing this system in preparation for the 2008 Census Dress Rehearsal.

For the 2010 Census, we also intend to use automation to directly capture information collected during personal interviews in non-response follow-up and other field operations, eliminating the need for paper maps and address lists for the major field data collection operations. This is a significant change from the paper-based census field operations of Census 2000 and every other previous census. The FDCA contract was awarded last spring to the Harris Corporation. It provides automation resources to support field data collection operations, including an integrated IT infrastructure, as well as support for handheld devices and other aspects of the field activities.

This contract will also provide for the purchase of handheld devices and the operating system. This custom-designed device will be used to collect information from households, provide geographic support to the enumerators, and gather administrative and payroll information for the Census Bureau. The estimated cost of each handheld device is $400. This cost includes the operating system, the GPS receiver, cellular antenna, dialup modem, fingerprint sensor, memory card, car and household charger adapters, battery, and the stylus, as well as software licensing. An important feature of the handheld computer is its security protection. The Census Bureau's ultimate priority is to protect the information we collect. The devices will require two-factor authentication for access, including a thumbprint and a "password" answer. It will "lockout" users after 15 minutes of non-use. Moreover, while these devices will resemble other commercially available equipment, they are being developed specifically for the 2010 Census, with software capabilities limited to those required for the census.

Of the remaining contracts, we have released the Request for Proposals and are evaluating the vendor proposals. We will announce the award for the printing contract, which includes printing, labeling, and assembling 676 million public use forms (of which 400 million are questionnaires) next month. The Data Access and Dissemination System award will be announced later this year. Finally, we will announce the award of the communication contract in early fall. The first key deliverable of this contract will be an integrated communications plan in the first quarter of FY 2008.

The communications contract will be at the forefront of a multi-faceted, integrated effort to increase the mail response rate, reduce the differential undercount even further, and encourage cooperation during the non-response follow-up operations. As part of the overall communications strategy, we intend to incorporate the lessons and successes of Census 2000, when for the first time in history we improved the mail response rate and reduced the differential undercount. Both paid advertising and partnerships were instrumental to these successes. One of the most important lessons of Census 2000 was the need to engage state, tribal, and local governments sooner rather than later. To that end, we are already contacting key local governments to discuss the Complete Count Committee program, so if they wish to initiate such a program, they will have a head start on planning their effort. Partnerships, whether they are formed through local governments or through national, local, or community organizations, are key to the success of the census. These partnerships encourage participation and demonstrate the importance of the census to every community. Partners are often our best ambassadors in hard-to-count communities and can encourage participation.

The census ultimately depends on the trust and participation of every household. To reach these households entails the success of a complex series of operations, ranging from the accuracy of the MAF to well-targeted advertising, all occurring in sequence and on time. Your continued support is vital, especially now as the decennial census ramps up. It takes an enormous effort, as well as precision-planned coordination to open more than 450 local census offices throughout the nation, contact 130 million households, and count more than 310 million

people. At the Census Bureau, our eyes are figuratively fixed on Census Day—yet we know the census has already begun. The Dress Rehearsal is underway, as is the 2010 LUCA program. Next year, we will conduct the Dress Rehearsal enumeration and we will open the 12 Regional Census Centers and the early LCOs as part of our efforts to ensure the field infrastructure is in place.

I believe these efforts are an important investment in the success of the census and in our nation's future, as the census data will be used to allocate both power and federal funding over the course of ten years. Many communities depend on the census—the count, as well as the information about the population and housing—to make critical decisions that affect the lives of every person living in America.

Thank you, Mr. Chairman, and I would be happy to answer your questions.

Mr. CLAY. Thank you so much for your testimony, Mr. Waite.

The bells have rung, but we are going to take Mr. Scire's testimony and then we will recess the hearing.

Please proceed, Mr. Scire.

STATEMENT OF MATHEW SCIRE

Mr. SCIRE. Mr. Chairman, thank you for the opportunity to be here today to discuss preparations for the 2010 census.

The Bureau has introduced significant change for 2010, including using only a short form and relying more on technology to carry out operations. These changes hold out the prospect of improving accuracy and reducing costs, but they also bring with them the need for managing the risk inherent whenever making changes to an operation as complex and critical as the decennial census.

Let me start by recognizing the Bureau's efforts to increase the response rate for the decennial.

First, by using only the easier-to-complete short form, the Bureau expects to increase response rate by 1 percent. Similarly, the Bureau expects to increase the ultimate response rate by sending second surveys to households that do not respond to the first.

The Bureau also plans a public awareness campaign, as it did in the previous census. This campaign has two major parts: a paid advertising campaign, and a partnership program where the Bureau works with governments, community-based organizations, the media, and others to elicit public participation in the census.

Mr. Chairman, one of the most significant changes to the census is the greater use of automation and technology. This includes the introduction of the handheld mobile computing device [MCD], that staff will use to conduct field work. As you know, earlier MCDs tested in 2004 and 2006 were not reliable. A new device will soon begin field use as part of the dress rehearsal in parts of North Carolina and California.

The Bureau relies on this technology and other systems to support key functions. Overall, the greater reliance on contractor-developed automation and technology for the 2010 census calls for greater focus on sound acquisition and management of these key investments.

To complete the census, the Bureau recruits, hires, trains the temporary work force that, at peak, exceeds one-half million. To do this, the Bureau plans to recruit five times as many applicants than it hires, and hire twice as many people as it needs, in anticipation of high levels of turnover.

We believe that the Bureau could refine its approach. For example, the Bureau could do more to study the factors that affect worker performance and willingness to stay throughout an operation. Also, the Bureau could do more to consider past performance when re-hiring.

We also believe the Bureau could improve its approach to training, which relies on a verbatim reading of training material. Likewise, the Bureau could do more to ensure that training sufficiently covers key challenges field staff are likely to face. These include working with reluctant respondents, as well as dealing with local conditions, such as enumerating in rural areas versus urban areas.

Finally, I would like to call attention to Bureau plans for enumeration in the Gulf Coast region. The effects of Hurricanes Katrina and Rita are still visible today. Numerous housing units have been or will be demolished as a result of the hurricanes and subsequent deterioration. Conversely, in some jurisdictions there is new development of housing units. This continuing change in housing unit stock makes it difficult for local governments in affected areas to assist the Bureau in reviewing address lists as part of the LUCA 2010 program this summer.

The mixed condition of the housing stock may also affect other Bureau operations. For example, Bureau field staff conducting address canvassing potentially face challenges of distinguishing between abandoned, vacant, and occupied housing units, as well as additional temporary housing units. On the other hand, non-response workload could be increased if the Bureau mails questionnaires to housing units that remain vacant on census day.

The Bureau has proposed several changes to the 2010 LUCA program for the Gulf Coast region, including accelerating the timing of training for affected localities. Bureau plans for addressing the potential impact on other operations is still ongoing.

In summary, Mr. Chairman, we believe that the reengineering, if successful, can help control costs and improve accuracy, yet there is more that the Bureau can do to refine recruiting, hiring, and training practices, and to prepare to enumerate in hurricane affected areas.

Also, the functionality and usability of the MCD specifically, and the oversight and management of information technology investments generally bear watching.

As in the past, we look forward to supporting this subcommittee's oversight efforts to promote a timely, complete, accurate, and cost-effective census.

This concludes my opening remarks. Thank you again for the opportunity to speak today. I would be glad to take whatever questions you may have.

[The prepared statement of Mr. Scire follows:]

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Information Policy, Census, and National Archives, Committee on Oversight and Government Reform, House of Representatives

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2010 CENSUS

Design Shows Progress, but Managing Technology Acquisitions, Temporary Field Staff, and Gulf Region Enumeration Require Attention

Statement of Mathew J. Scirè
Director, Strategic Issues

GAO-07-779T

April 24, 2007

GAO
Accountability·Integrity·Reliability

Highlights

Highlights of GAO-07-779T, testimony before the Subcommittee on Information Policy, Census, and National Archives, Committee on Oversight and Government Reform, House of Representatives

2010 CENSUS

Design Shows Progress, but Managing Technology Acquisitions, Temporary Field Staff, and Gulf Region Enumeration Require Attention

Why GAO Did This Study

The decennial census is a Constitutionally-mandated activity that produces data used to apportion congressional seats, redraw congressional districts, and allocate billions of dollars in federal assistance. The Census Bureau (Bureau) estimates the 2010 Census will cost $11.3 billion, making it the most expensive in the nation's history. This testimony discusses the Bureau's progress in preparing for the 2010 Census to (1) implement operations to increase the response rate and control costs; (2) use technology to increase productivity; (3) hire and train temporary staff; and (4) plan an accurate census in areas affected by hurricanes Katrina and Rita.

The testimony is based on previously issued GAO reports and work nearing completion in which GAO observed recruiting, hiring, and training practices in the 2006 test, and visited localities that participated in the Local Update of Addresses Dress Rehearsal as well in the Gulf Coast region.

What GAO Recommends

At this time, GAO is not making new recommendations, but past reports recommended steps for the Bureau to enhance the mobile computing devices and promote an accurate census in areas impacted by hurricanes Katrina and Rita. The Bureau generally agreed with these recommendations and has acted to implement some of them.

www.gao.gov/cgi-bin/getrpt?GAO-07-779T.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Mathew J. Scire at (202) 512-6806 or sciremj@gao.gov.

What GAO Found

The Bureau has made progress towards implementing a re-engineered census design that holds promise for increasing the response rate, thereby controlling the cost of the census while promoting accurate results. The re-engineered design includes a short form only census designed to increase the response rate by about 1 percent and a targeted second mailing, which is expected to increase response by between 7 to 10 percent. Both of these initiatives are new, have been tested, and will be a part of the 2010 Census design. According to Bureau officials, a 1 percent increase in the response rate can save $75 million, making these initiatives critical to the new design.

Uncertainty surrounds a keystone to the reengineered census, the mobile computing device (MCD). The MCD allows the Bureau to automate operations and eliminate the need to print millions of paper questionnaires and maps used by census workers to conduct census operations and to assist in managing payroll. The MCD, tested in the 2004 and 2006 census tests, was found to be unreliable. While a contractor has developed a new version of the MCD, the device will not be field tested until next month, leaving little time to correct problems that might emerge during the 2008 Dress Rehearsal.

Timeline of Selected Key Decennial Events

Dates	Decennial activity
Jan. 2007–Jan. 2010	Local Update of Census Addresses (localities assist in updating address lists and maps)
Feb. 2006–Jan. 2009	2008 Dress Rehearsal (Bureau's rehearsal of all planned decennial operations)
Jan. 2008	Opening of 12 Regional Census Centers
Oct. 2008	Opening of about 455 Local Census Offices
Apr.–Sept. 2009	Address Listing Activities (staff validate address lists and maps)
Apr. 1, 2010	Census Day
Apr.–July 2010	Nonresponse Follow-up (field staff follow-up in person at housing units of nonresponding persons)
Dec. 31, 2010	Delivery of apportionment counts to the President
Mar. 31, 2011	Complete delivery of redistricting data to the states

Source: GAO summary of Census Bureau data.

The Bureau faces challenges in recruiting, hiring, and training an estimated 600,000 temporary employees. For example, opportunities exist for the Bureau to hone its recruiting efforts to identify individuals who would be more likely to be effective at census work and willing to work throughout an operation. Also, census workers indicated a need for additional training on reluctant respondents as well as location-specific challenges they encounter. The Bureau must also be prepared to accurately count the population affected by hurricanes Katrina and Rita. The Bureau has contacted local officials in the Gulf Area and is developing a plan that includes workshops and special staffing considerations.

Mr. Chairman, Mr. Turner, Members of the Subcommittee:

Thank you for the opportunity to be here today to discuss the status of the Census Bureau's (Bureau) progress in preparing for the 2010 Census. Based on issued and ongoing work, my testimony today addresses the Bureau's efforts to prepare for the next decennial by (1) implementing operations designed to improve the completeness and accuracy of the census as well as to increase response rate and hence control costs, (2) using automation and technology to increase productivity, (3) recruiting, hiring, and training peak temporary staff of about 600,000 in 2010 in a challenging environment, and (4) planning how to ensure an accurate population count in areas affected by hurricanes Katrina and Rita.

As you know, Mr. Chairman, the census is a critical national effort mandated by the Constitution. Census data are used to apportion seats in the Congress, redraw congressional districts, allocate billions of dollars in federal assistance to state and local governments, and for numerous other public and private sector purposes. In addition, the census is a complicated undertaking and substantial investment, requiring careful planning, risk management, and oversight to ensure its ultimate success. The Bureau estimates the 2010 Census will cost $11.3 billion over its life-cycle, making it the most expensive census in our country's history, even after adjusting for inflation. Since the 2000 Census, we have been examining how the Bureau is preparing for the 2010 Census, including incorporating lessons learned from the 2000 Census into its planning for the 2010 decennial. Given the importance of a successful enumeration, for the last 3 decennials, we have supported an approach to oversight that is timely, rigorous, constructive, and holds the Bureau accountable for results.

Today's hearing is particularly timely. The Bureau is now conducting the 2008 Dress Rehearsal's Local Update of Census Addresses (LUCA) program, where local, state, and tribal governments are given the opportunity to review and suggest changes to Census Bureau address lists and maps. Beginning in early May 2007, the Bureau will deploy the hand-held mobile computing devices (MCDs)—a keystone to the reengineered Census—to verify address data as part of the address canvassing portion of the Dress Rehearsal. We plan to be on-hand to observe the functionality and usability of the MCDs at the dress rehearsal sites in North Carolina and California where the Bureau will conduct a dry run of the full enumeration planned for 2010. "Census Day" for this exercise is April 1, 2008.

As we have testified in the past, the Bureau's ongoing reengineering of the decennial census—including changes in the survey design and greater use of technology—could have important benefits in improved efficiencies and cost-containment as well as the accuracy, quality, and consistency of data collected. But these changes, as well as intervening events, raise new risks that bear watching. Also, given the sheer size of census operations, refinements to recruiting, hiring, and training can have substantial results.

In summary, our recent work on the reengineering of and preparations for the 2010 decennial have yielded a number of observations about actions the Bureau has taken to promote an accurate and cost-effective census.

- The Bureau has taken steps to increase response rates through such measures as moving to a short form, and utilizing a second mailing.
- The MCD version being deployed during the upcoming dress rehearsal will be used for the first time in the field—this is the prototype under contract for the 2010 Census—and if it does not function as expected or needed, little time will be left for the Bureau to take corrective action. Overall, the Bureau's greater reliance on contractor-developed automation and technology for the 2010 Census call for greater focus on sound acquisition and management of these key investments.
- The Bureau's efforts to recruit, hire, and train a sufficient workforce to enumerate an increasingly hard-to-find and reluctant population in a more technology-dependent census presents a unique challenge for the Bureau to refine its recruiting practices and enhance its training.
- The intervention of hurricanes Katrina and Rita have placed additional demands on the Bureau to prepare for enumerating a large population displaced by these devastating storms, in an environment in which local governments' capacities are constrained and physical infrastructure and services have not yet returned to normal.

Given these complexities, our message remains that the risks associated with the decennial must be closely monitored, evaluated, and managed, with mitigation plans in place where appropriate, to help ensure that accurate results are delivered on time and within projected costs.

My remarks today are based primarily on reports that we have issued from 2002 through July 2006 on the planning and development of the 2010 Census, as well as the results of work nearing completion. (Please see app. I for a list of relevant reports.) For the 2004 field test, we visited Queens, New York, and several counties in rural south-central Georgia. We visited the Texas and South Dakota test sites during the 2006 field test. During these visits we observed such operations as the address canvassing

operation—where workers go door to door verifying addresses and updating maps as part of the Bureau's effort to build a complete and accurate address list, and we observed the non-response follow-up operation (NRFU)—where enumerators collect information from those households that do not return their initial questionnaire. We also observed key recruiting, hiring, and training activities during the 2006 test completed last summer. During the autumn of 2006, we observed preparations for and the conduct of the Local Update of Census Addresses (LUCA) phase of the 2008 Dress Rehearsal in sites located in North Carolina and California, and in January 2007 we visited areas in Louisiana, Mississippi, and Texas affected by hurricanes Katrina and Rita. We conducted our work in accordance with generally accepted government auditing standards.

Background

The decennial census is the nation's largest, most complex survey. In April 2009, address canvassing—a field operation for verifying and correcting addresses for all households and street features contained on decennial maps—will begin. One year later, the Bureau will mail census questionnaires to the majority of the population in anticipation of Census Day, April 1, 2010. Those households who do not respond will be contacted by field staff through the NRFU operation to determine the number of people living in the house on Census Day, among other information. In addition to address canvassing and NRFU, the Bureau conducts other operations, for example, to gather data from residents from group quarters, such as prisons or college dormitories. The Bureau also employs different enumeration methods in certain settings, such as remote Alaska enumeration, in which people living in inaccessible communities must be contacted in January 2010 in anticipation of the spring thaw which makes travel difficult, or update/enumerate, a data collection method involving personal interviews, used in communities where many housing units may not have typical house number-street name mailing addresses. Further, the efforts of state and local government are enlisted to obtain a more complete address file through the LUCA program.

The census is also conducted against a backdrop of immutable deadlines, and the census's elaborate chain of interrelated pre- and post-Census Day activities is predicated upon those dates. The Secretary of Commerce is legally required to (1) conduct the census on April 1 of the decennial year, (2) report the state population counts to the President for purposes of congressional apportionment by December 31 of the decennial year, and (3) send population tabulations to the states for purposes of redistricting

no later than 1 year after the April 1 census date. To meet these mandated reporting requirements, census activities must occur at specific times and in the proper sequence. The table below shows some dates for selected, key decennial activities.

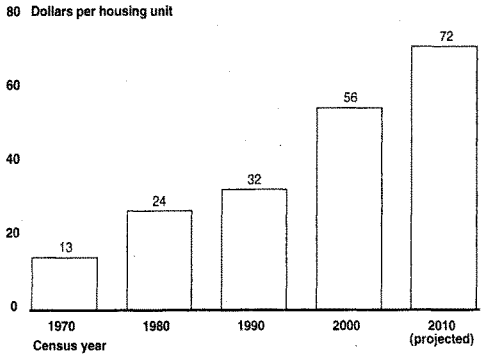
Table 1: Timeline of Selected Key Decennial Events

Beginning and End Dates	Decennial activity
Jan. 2007–Jan. 2010	Local Update of Census Addresses (localities assist in updating address lists and maps)
Feb. 2006–June 2009	2008 Dress Rehearsal (Bureau's rehearsal of all planned decennial operations)
Jan. 2008	Opening of 12 Regional Census Centers
Oct. 2008	Opening of 455 Local Census Offices
Apr.–Sept. 2009	Address Listing Activities (Bureau field staff validate address lists and maps)
Apr. 1, 2010	Census Day
Apr.–July 2010	Nonresponse Follow-up (Field staff follow-up in person at housing units of nonresponding persons)
Dec. 31, 2010	Delivery of apportionment counts to the President
Mar. 31, 2011	Complete delivery of redistricting data to states

Source: GAO summary of Census Bureau data.

The Bureau estimates that the 2010 Census will cost $11.3 billion over its life-cycle, making it the most expensive in the nation's history. While some cost growth is expected, partly because the number of housing units has increased, the estimated cost escalation has far exceeded the housing unit increase. The Bureau estimates that the number of housing units for the 2010 Census will increase by 10 percent over 2000 Census levels, but the average 2010 cost to enumerate a housing unit is expected to increase by about 29 percent from 2000 levels (from $56 to $72) (see fig. 1). As the Bureau plans for 2010, maintaining cost effectiveness will be one of the single greatest challenges confronting the agency.

Figure 1: Decennial Census Average Cost per Housing Unit (in Constant Fiscal Year 2000 Dollars)



Source: GAO analysis of U.S. Census Bureau figures.

According to the Bureau, the increasing cost of the census is caused by various societal trends—such as increasing privacy concerns, more non-English speakers, and people residing in makeshift and other nontraditional living arrangements—making it harder to find people and get them to participate in the census.

The Bureau Has Taken Steps to Increase Response Rates

The Bureau has reengineered the decennial census, including implementing new initiatives aimed at increasing the response rate. Furthermore, the Bureau also plans to begin to implement its outreach and communications campaign, an effort used in the 2000 Census that was designed to increase awareness and encourage individuals to respond to the census questionnaire. Increasing the decennial's response rate can result in significant savings because the Bureau can reduce the staffing and costs related to NRFU, as well as yield more complete and accurate data. According to the Bureau, for every one-percentage point increase in the response rate, the Bureau will be able to save $75 million.

The Bureau plans to increase response rate by several means, including conducting a short-form-only census. The Bureau is able to do this

because in 1996 the Bureau began efforts to replace the decennial long form with the American Community Survey. Since 1970, the overall mail response rate to the decennial census has been declining steadily, in part, because of the burden of responding to the long form, which was sent to a sample of respondents. In the 1980 Census, the overall mail response rate was 75 percent, 3 percentage points lower than it was in the 1970 Census. In the 1990 census, the mail response rate dropped to 65 percent but in 2000 appeared to be leveling off at about 64 percent. In the 2000 Census when comparing the short form to the long form the Bureau found the short form response rate of 66.4 percent was 12.5 percentage points higher that the long form response rate of 53.9 percent. While the difference between the long and short form response rates are significant, the Bureau in its initial assumption for the 2010 Census predicted that conducting a short-form-only census will yield only a 1-percent increase in the overall mail response rate.

A targeted second mailing to households that fail to respond to the initial census questionnaire can increase the ultimate response rate. According to Bureau studies, sending a second questionnaire could yield a gain in overall response of 7 to 10 percentage points from non-responding households, thus potentially saving the Bureau between $525 million to $700 million dollars (given that every 1 percentage point increase in response may save $75 million). In reports, we have highlighted that a targeted second mailing could boost the mail response rate, which in turn would result in considerable savings by reducing the number of costly personal visits enumerators would need to make to nonresponding households.[1] The Bureau has never before included this operation as part of a decennial census and over the decade has been testing its feasibility. A targeted second mailing was a part of 2006 test and boosted the response rate by 8.8 percent at the Austin, Texas test site. According to Bureau officials targeted second mailing will be a part of the 2010 Census design.

For the 2010 Census the Bureau also intends to increase response rates by undertaking a public awareness campaign as it did in the previous census. In the 2000 Census that effort was comprised of two major activities:

[1]GAO, *2010 Census: Basic Design Has Potential, but Remaining Challenges Need Prompt Resolution*, GAO-05-9 (Washington, D.C.: Jan. 12, 2005) and GAO, *2000 Census: Contingency Planning Needed to Address Risk That Pose a Threat to a Successful Census*, GAO/GGD-00-6 (Washington, D.C.: Dec. 14, 1999).

- conducting the first-ever paid advertising campaign aimed at increasing the mail response rate, including the historically undercounted populations, and
- leveraging the value of local knowledge by building 140,000 partnerships at every level including state, local , and tribal governments; community-based organizations; and the media and private-sector organizations to elicit public participation in the census.

In 2001 we reported that for the 2000 Census, it appeared that encouraging people to respond to the census questionnaire was successful, in part due to the Bureau's partnership efforts.[2] For example, according to the Bureau, it achieved an initial mail response rate of about 64 percent, 3 percentage points higher that it had anticipated when planning for NRFU. This was a noteworthy accomplishment and, as a result, the Bureau had over 3 million fewer housing units to follow-up with than it had initially planned.

The Bureau will soon begin its outreach and communication effort for 2010. The Bureau plans to award the communications contract in August 2007 and will begin hiring partnership specialists at headquarters starting in fiscal year 2008.

The Bureau's Plans for Greater Use of Automation and Technology Demand Greater Risk Management

The MCD is a keystone to the reengineered census. It allows the Bureau to automate operations and eliminate the need to print millions of paper questionnaires and maps used by census workers to conduct address canvassing and NRFU, as well as assisting to manage field staff's payroll. The benefits of using the MCD were tested in the 2004 and 2006 tests. According to the Bureau, during the 2004 Census Test, the MCD allowed the Bureau to successfully remove over 7,000 late mail returns from enumerators' assignments, reducing the total NRFU workload by nearly 6 percent. The ability to remove late mail returns from the Bureau's NRFU workload reduces costs, because census field workers no longer need to make expensive follow-up visits to households that return their questionnaire after the mail-back deadline. If the Bureau had possessed this capability during the 2000 Census, it could have eliminated the need to visit nearly 773,000 late-responding households and saved an estimated $22 million (based on our estimate that a 1-percentage-point increase in

[2]GAO, *2000 Census: Review of Partnership Program Highlights Best Practices for Future Operations*, GAO-01-579 (Washington, D.C.: Aug. 20, 2001).

workload could add at least $34 million in direct salary, benefits, and travel costs to the price tag of NRFU[3]).

However, the Bureau's ability to collect and transmit data using the MCD is not fully tested and, at this point, constitutes a risk to the cost-effective implementation of the 2010 Census. During the 2004 test of NRFU and the 2006 test of address canvassing, the MCDs experienced significant reliability problems. For example, during the 2004 Census Test, the MCDs experienced transmission problems, memory overloads, and difficulties with a mapping feature—all of which added inefficiencies to the NRFU operation.[4] Moreover, during the 2006 test, the MCD's global positioning system (GPS) receiver, a satellite-based navigational system to help workers locate street addresses and collect coordinates for each structure in their assignment area, was also unreliable.

Bureau officials believe the MCD's performance problems will be addressed through a contract awarded on March 30, 2006, to develop a new MCD. A prototype of the MCD has been developed and delivered by the contractor for use in the 2008 Dress Rehearsal. However, operational testing of the MCD will not occur until May 2007, when address canvassing for the 2008 Dress Rehearsal occurs, and if problems do emerge, little time will be left to develop, test, and incorporate refinements. In our May 2006 report, we highlighted the tight time frames to develop the MCD and recommended that systems being developed or provided by contractors for the 2010 Census—including the MCD—be fully functional and ready to be assessed as part of the 2008 Dress Rehearsal. We are currently reviewing the cost, schedule and performance status of the contract for the MCDs.

We plan to visit the dress rehearsal sites to determine the functionality of the devices to collect and transmit data. If after the 2008 Dress Rehearsal the MCD is found not to be reliable, the Bureau could be faced with the daunting possibility of having to revert to the costly, paper-based census used in 2000.

Although the greater use of automation offers the prospect of greater efficiency and effectiveness, these actions also introduce new risks. The automation of key census processes involves an extensive reliance on

[3]GAO/GGD-00-06.

[4]GAO-05-9.

contractors. Consequently, contract oversight and management becomes a key challenge to a successful census. As part of the Bureau's plans to increase the use of automation and technology for the 2010 Census, the Bureau estimates that it will spend about $ 3 billion on information technology (IT) investments. The Bureau will be undertaking several major acquisitions, including the Decennial Response Integration System (DRIS)—a system for integrating paper and telephone responses; the Field Data Collection Automation (FDCA) program—the systems and support equipment for field office data collection activities including the MCDs to be used by enumerators; the Data Access and Dissemination System (DADS II)—a system for tabulating and disseminating data from the decennial census and other Bureau surveys to the public; and the modernization of the Master Address File/Topologically Integrated Geographic Encoding and Referencing (MAF/TIGER) system, which provides the address list, maps, and other geographic support services for the decennial and other Bureau surveys, known as the MAF/TIGER Accuracy Improvement Project (MTAIP). Together these and other systems are to support collection, processing, and dissemination of census data.

In March 2006, we testified on the Bureau's acquisition and management of two key information technology system acquisitions for the 2010 Census—FDCA and the DRIS.[5] We reported on the Bureau's progress in implementing acquisitions and management capabilities for these initiatives. To effectively manage major IT programs, organizations should use sound acquisition and management processes to minimize risk and thereby maximize chances for success. Such processes include project and acquisition planning, solicitation, requirement development and management, and risk management. We reported that while the project offices responsible for these two contracts have carried out initial acquisition management activities, neither office had the full set of capabilities they needed to effectively manage the acquisitions, including implementing a full risk management process. We also made recommendations for the Bureau to implement key activities needed to effectively manage acquisitions. For example, we recommended that the Bureau's project office for DRIS complete a project plan and obtain stakeholder concurrence before initiating additional development work

[5]GAO, *Census Bureau: Important Activities for Improving Management of Key 2010 Decennial Acquisitions Remain to be Done*, GAO-06-444T (Washington, D.C.: Mar. 1, 2006).

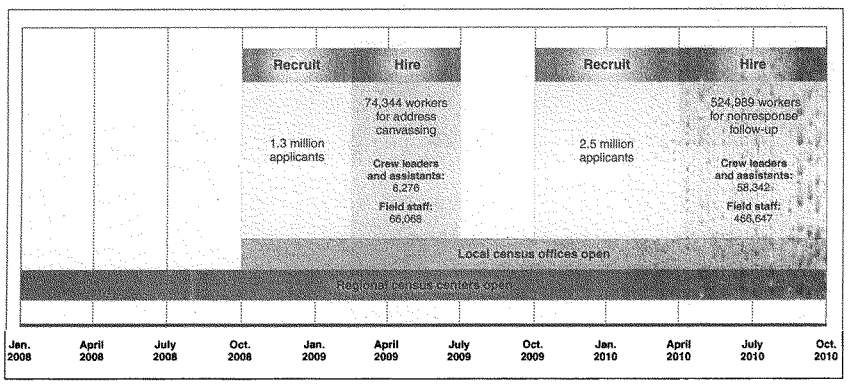
and obtain validation, management, and customer approval of DRIS requirements. In response to our recommendation, the Bureau has finalized the project plan for DRIS and has obtained stakeholders' commitment. As a result, the DRIS project office will have the direction that it needs to successfully avoid unanticipated changes.

We are reviewing the cost, schedule, and performance status for DRIS, FDCA, MTAIP, and DADS II to determine whether the Bureau is adequately managing risks associated with these key systems. Effective risk management includes identifying and analyzing risks, assigning resources, developing risk mitigation plans and milestones for key mitigation deliverables, briefing senior-level managers on high-priority risks, and tracking risks to closure and is an important project management discipline to ensure that key technologies are delivered on time, within budget, and with the promised functionality. This discipline is essentially important given the immovable decennial census deadline. We are scheduled to complete our work on that engagement by September 2007

The Bureau Can Improve Its Recruiting, Hiring, and Training Efforts

Prior to Census Day, Bureau field staff perform the address canvassing operation, during which they verify the addresses of all housing units. The Bureau estimates spending $350 million to hire about 74,000 field workers for the address canvassing operation. About 1 year later, the Bureau mails out questionnaires to about 130 million households nationwide. However, the Bureau expects that about 40 million households will not return the questionnaire. To collect information from those households, the Bureau hires temporary field staff—based out of local census offices—to visit each nonresponding household in its NRFU operation. The Bureau expects to spend over $2 billion to employ about 525,000 temporary field staff for that activity. As shown in fig. 2, in total the Bureau will recruit and test 3.8 million applicants for addressing canvassing and NRFU, hiring some 600,000 people for the 2010 Census.

Figure 2: The Bureau's Recruiting and Hiring Timeline for Temporary Field Staff During the 2010 Census



Source: GAO and U.S. Census Bureau.

The Bureau Can Refine Its Approach to Recruiting and Hiring Temporary Field Staff

For the 2010 Census, the Bureau plans to use a similar approach to recruit and hire workers as it used during Census 2000. These strategies made the Bureau a more attractive employer to prospective candidates and helped provide a steady stream of applicants during Census 2000. Despite a tight labor market, the Bureau attracted about 3.7 million qualified applicants and hired about half a million enumerators at peak. Some of the broad approaches from 2000 that the Bureau plans on implementing for the 2010 census include

- recruiting five times more applicants than the needed number of field workers to ensure a considerable depth in the applicant pool from which to hire;
- "frontloading" or hiring twice the number of people needed to do the work in anticipation of high levels of turnover;
- exercising the flexibility to raise pay rates for local census offices that were encountering recruiting difficulties; and
- launching a recruitment advertising campaign, which totaled over $2.3 million for Census 2000.

As in 2000, the Bureau faces the daunting tasks of meeting its recruiting and hiring goals. However, it also faces additional challenges, such as demographic shifts whereby the population is increasingly diverse and difficult to locate, and newer challenges, like the Bureau's use of handheld computers for data collection in the field. It does plan some improvements to how it recruits and hires its temporary workforce to carry out the 2010 Census. For example, the Bureau has conducted and incorporated information collected from employee debriefings that could improve its recruiting and hiring processes. Bureau officials believe this feedback would be helpful in evaluating and refining its hiring and recruiting processes and intend to incorporate some of that information for the 2008 Dress Rehearsal. However, it can do more to target its recruitment of field staff.

The Bureau casts a wide net to recruit its temporary workforce to ensure it has a large enough applicant pool from which to hire. In commenting on a draft of this work, Commerce noted that the Bureau's priority is to reach out as broadly a possible to the diverse communities in the county to attract several million applicants. We recognize that when recruiting and hiring for hundreds of thousands of positions, the Bureau faces a challenge in assessing applicants' potential success or willingness to work. However, opportunities exist for the Bureau to hone its recruiting efforts to identify individuals who would be more likely to be effective at census work and willing to continue working throughout an operation. Along those same lines, the Bureau could also evaluate the factors associated with an applicant's success, willingness to work in an operation, and likelihood of attrition to refine its hiring. Despite Commerce's reservations about refining its current recruiting and hiring strategies, we believe that the Bureau could do more to understand what makes for a successful recruit and, by hiring such applicants, reduce operating costs.

Another recruiting and hiring issue we identified in our completed work is related to how the crew leaders are selected. We found that the Bureau's tools for hiring crew leaders could better distinguish the skills needed for those positions. Crew leaders fill an important role in the Bureau's field activities because they supervise the work of crews of field workers; train field workers; and will be counted on to troubleshoot the MCDs. We found that despite the different skill requirements of crew leaders and other field staff—for example, while it was important for field staff working in the NRFU operation to have arithmetic and visual identification skills, crew leaders need those skills as well as additional skills, such as management, leadership, and creative thinking—the Bureau used the same set of hiring tools to hire individuals for crew leaders and other field positions during

the 2006 Census Test. In its review of the 2004 Census Test, the Department of Commerce Office of Inspector General OIG also reported that Bureau officials said that the applicants' the multiple-choice test does not capture the technical or supervisory skills needed by crew leaders.[6]

The Bureau hired a contractor to assess whether the tools used during the 2006 Census Test selected individuals with the skills necessary to conduct field work using MCDs;[7] however, the Bureau has no current plans to make changes to its hiring process that would include differentiated hiring tools for crew leaders and other positions. Without hiring tools that distinguish between skills needed for the crew leader and other positions, the Bureau does not have assurances that it is selecting crew leaders that can best perform important duties like providing training, managing other field staff, and troubleshooting handheld computers. In commenting on our draft, Commerce indicated that the Bureau needs to evaluate its hiring tools. It is also working to identify and test what the appropriate skills are for the crew leader position.

Finally, we found that the Bureau does not collect performance data needed to rehire former workers from prior or ongoing operations to whom it may give hiring priority. Officials say they try to exclude those terminated for cause (such terminations can result when workers have performance or conduct problems such as selling drugs or striking another worker). Bureau officials point to its internal systems, which, they say preclude the rehiring of employees who were terminated for cause. However, the OIG and field officials told us that poor performers may not always be terminated. Without better information on employee performance, the Bureau cannot ensure that the weakest performers are not rehired. Over the course of the 2006 Census Test, almost 15 percent of all field staff were rehired. If this percentage were to be rehired during the 2010 Census, the Bureau would not have performance data to meaningfully evaluate whether to rehire approximately 90,000 individuals. The Bureau believes that the pace of the decennial, particularly NRFU, is such that local census officials would not have enough time to consider past performance when making hiring decisions. However, we believe that the Bureau has enough time. For example, performance data could be

[6]Department of Commerce, Office of Inspector General, *Improving Our Measure of America: What the 2004 Census Test Can Teach Us in Planning for the 2010 Decennial Census*, OIG-16949 (Washington, D.C.: September 2004).

[7]Bureau officials told us that final results of this study are not yet available.

collected during address canvassing to be used to assess workers for NRFU, nearly one-year later.

Opportunities Exist for the Bureau to Improve Training for Field Staff

The Bureau has employed essentially the same approach to training since the 1970 Census. To conduct training, the Bureau solicits free or low-cost training spaces from local organizations, such as churches or libraries. Training classes typically include 15 to 20 students. Crew leaders usually train their crews, with the assistance of at least one crew leader assistant, using a verbatim training approach, whereby crew leaders read training scripts word-for-word over the course of several days. Similarly, the crew leaders were themselves trained by their supervisors in a "train-the-trainers" approach. The length of training varies by operation; for NRFU, training took almost 42 hours over the course of 6 days during the 2006 test.

The Bureau and others, including us, have reported that the Bureau should consider alternate approaches to training delivery. Our review of the 2004 Census Test found that, as a result of the demographic and technological changes that have taken place since 1970, the Bureau might want to explore alternatives to its verbatim approach to training.[8] Moreover, in 2004, the OIG suggested the Bureau explore the use of interactive training methods, as the Bureau does for other non-decennial surveys.[9] For example, while many field staff we contacted during the 2006 test said their overall impression of training was generally positive, many added that videos or visuals would or might improve training. In addition, while the Bureau is providing some computer-based training on using the handheld computers in key operations, overall the Bureau has made limited changes to the approach it uses to deliver training and has not evaluated alternative approaches to providing training. It is notable that observations during the 2004 and 2006 tests showed that field staff may have missed important parts of training. Contractor employees saw students playing games on their MCDs during training for the 2006 test,[10] and in 2004 the OIG saw students not paying attention and falling asleep in

[8]GAO-05-9.

[9]Department of Commerce OIG, OIG-16949.

[10]The MCDs developed by Harris will not include software that will allow field staff to play games during training.

class, concluding that some may not have learned how to conduct census operations.[11]

The content of the Bureau's training for field staff also has not changed substantially since Census 2000, despite the fact that, according to the Bureau itself, collecting data from the nation's population has become increasingly difficult. Field workers we spoke to during the 2006 test noted two related issues on which they had not received sufficient training—dealing with reluctant respondents and handling location-specific challenges.

According to the Department of Commerce OIG, in 2004 field staff complained that they felt unprepared to deal with reluctant respondents; the OIG report recommended the Bureau consider adding content to enhance training on this topic.[12] Moreover, our review of the Bureau's summaries of debriefings it conducted after the 2006 test indicated that field staff found respondent reluctance to be a challenge.[13] Crew leaders noted that this was the most difficult task enumerators faced. In our field visits, we observed that without adequate preparation in dealing with reluctant responders, field staff developed their own strategies when confronted with these situations, resulting in inconsistent and sometimes inappropriate data collection methods. For example, when unable to contact respondents, one Texas enumerator looked up respondent information online, tried to find a phone number for another respondent from a neighborhood cat's collar, and illegally went through residents' mail.

Field staff may also need more training in overcoming location-specific challenges, such as rural conditions on the Cheyenne River Indian Reservation in South Dakota; and counting the transient student population in Austin, Texas. For example, in Austin, one crew leader explained that training spent a lot of time on mobile homes—which did not exist in his area—but very little time on apartment buildings, which are common there. Based on our observations of the 2004 test, we suggested that the Bureau supplement the existing training with modules

[11]Department of Commerce OIG, OIG-16949.

[12]Department of Commerce OIG, OIG-16949.

[13]As previously discussed, these sessions aimed to obtain information that will improve Bureau procedures, including training. We reviewed summaries of debriefings conducted for three operations—NRFU, update/enumerate, and address canvassing.

geared toward addressing the particular enumeration challenges that field staff are likely to encounter in specific locales.[14] During this review, the Bureau told us that it works with regional offices to develop 10-minute training modules for specific locations. For example, in 2000, Bureau officials said enumerators in Los Angeles were trained to look for small, hidden housing units, such as apartments in converted garages. Bureau officials said they provide guidance on the length of the modules and when they should be presented. However, they said they were not sure how often this kind of specialized training took place, nor had they allocated time during training to present specialized information.

We believe the Bureau could do more to assist local offices provide training that recognizes local conditions. Specifically, based on work we will be reporting shortly, we will recommend that the Bureau centrally develop training modules covering enumeration strategies in a variety of situations, such as mobile homes, large apartment buildings, and migrant worker dwellings, which local officials can selectively insert into their training if there is a need to train their field staff on that topic. Such modules would enhance the effectiveness of training by giving greater attention to the challenges field staff are likely to face. In commenting on this recommendation, Commerce noted that the Bureau works with managers in each regional census center to customize a location-specific training module for local census offices. Nonetheless, developing modules for different types of locations centrally would allow the Bureau to control the consistency and quality of training throughout the nation.

Bureau Is Designing Decennial Activities in the Geographic Area Affected by Hurricanes Katrina and Rita

As part of our evaluation of the Bureau's LUCA dress rehearsal, we visited the localities along the Gulf Coast to assess the effect the devastation caused by Hurricanes Katrina and Rita might have on LUCA and possibly other operations. The effects of Hurricanes Katrina and Rita are still visible throughout the Gulf Coast region. Hurricane Katrina alone destroyed or made uninhabitable an estimated 300,000 homes; in New Orleans, local officials reported that Hurricane Katrina damaged an estimated 123,000 housing units. Such changes in housing unit stock continue to present challenges to the implementation of the 2010 LUCA Program in the Gulf Coast region and possibly other operations. Many officials of local governments we visited in hurricane-affected areas said they have identified numerous housing units that have been or will be

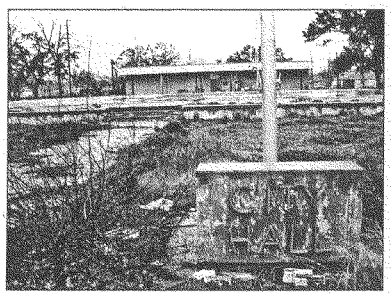
[14]GAO-05-9.

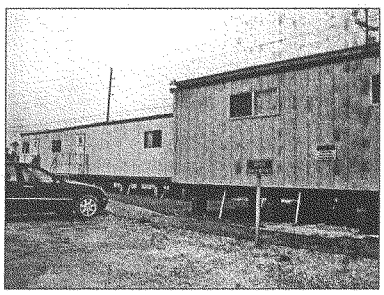
demolished as a result of hurricanes Katrina and Rita and subsequent deterioration. Conversely, many local governments estimate that there is new development of housing units in their respective jurisdictions. The localities we interviewed in the Gulf Coast region indicated that such changes in the housing stock of their jurisdictions are unlikely to subside before local governments begin reviewing and updating materials for the Bureau's 2010 LUCA Program—in August 2007.[15] Local government officials told us that changes in housing unit stock are often caused by difficulties families have in deciding whether to return to hurricane-affected areas. Local officials informed us that a family's decision to return is affected by various factors, such as the availability of insurance; timing of funding from Louisiana's "Road Home" program;[16] lack of availability of contractors; school systems that are closed; and lack of amenities such as grocery stores. As a result of the still changing housing unit stock, local governments in hurricane-affected areas may be unable to fully capture reliable information about their address lists before the beginning of LUCA this year or address canvassing in April 2009. Furthermore, operation of local governments themselves has been affected by the hurricanes (see fig. 3). These local governments are focused on reconstruction and at least two localities we spoke to questioned their ability to participate in LUCA.

[15]The period for local review and update of addresses and maps for the 2010 LUCA Program is August 2007-March 2008.

[16]The "Road Home" Program was implemented by the State of Louisiana to provide compensation of up to $150,000 for eligible homeowners affected by hurricanes Katrina and Rita.

Figure 3: City Halls in Mississippi and Louisiana Have Been Destroyed and City Officials Now Operate Out of Trailers





Source: GAO (January 2007).

Note: Pictures are from January 2007.

The mixed condition of the housing stock in the Gulf Coast will increase the Bureau's address canvassing workload. During our field work, we found that hurricane-affected areas have many neighborhoods with abandoned and vacant properties mixed in with occupied housing units. Bureau staff conducting address canvassing in these areas may have an increased workload due to the additional time necessary to distinguish between abandoned, vacant and occupied housing units. Another potential issue is that due to continuing changes in the condition in the housing stock, housing units that are deemed vacant or abandoned during address canvassing may be occupied on Census Day (Apr. 1, 2010). Bureau officials said that they recognize there are issues with uninhabitable structures in hurricane-affected zones. They noted that addresses marked as vacant or uninhabitable during address canvassing in the Gulf Coast region will not be deleted from the MAF, and said that they may adjust training for Bureau staff in hurricane-affected areas.

Workforce shortages may also pose significant problems for the Bureau's hiring efforts for address canvassing. The effects of hurricanes Katrina and Rita caused a major shift in population away from the hurricane-affected areas, especially in Louisiana. This migration displaced many low-wage workers. Should this continue, it could affect the availability of such workers for address canvassing and other decennial census operations. Bureau officials recognize the potential difficulty of attracting these

workers, and have recommended that the Bureau be prepared to meet hourly wage rates for future decennial staff that are considerably higher than usual. It has noted that its Dallas regional office, which has jurisdiction over hurricane-affected areas in Texas, Louisiana, and Mississippi, will examine local unemployment rates to adjust pay rates in the region, and use "every single entity" available to advertise for workers in the New Orleans area.

Early in 2006, we recommended that the Bureau develop plans (prior to the start of the 2010 LUCA Program in August 2007) to assess whether new procedures, additional resources, or local partnerships, may be required to update the MAF/TIGER database along the Gulf Coast—in the areas affected by hurricanes Katrina and Rita.[17] The Bureau responded to our recommendations by chartering a team to assess the effect of the storm damage on the Bureau's address list and maps for areas along the Gulf Coast and develop strategies with the potential to mitigate these effects. The chartered team recommended that the Bureau consult with state and regional officials (from the Gulf Coast) on how to make LUCA as successful as possible, and hold special LUCA workshops for geographic areas identified by the Bureau as needing additional assistance. While the Bureau (through its chartered team, headquarters staff and Dallas regional office) has proposed several changes to the 2010 LUCA Program for the Gulf Coast region, there are no specific plans for implementing the proposed changes.

In summary, Mr. Chairman, we recognize the Bureau faces formidable challenges in successfully implementing a redesigned decennial census. It must also overcome significant challenges of a demographic and socioeconomic nature due to the nation's increasing diversity in language, ethnicity, households, and housing type, as well as an increase in the reluctance of the population to participate in the census. The need to enumerate in the areas devastated by hurricanes Katrina and Rita is one more significant difficulty the Bureau faces. We applaud the moves the Bureau has undertaken to redesign the census; we have stated in the past, and believe still, that the reengineering, if successful, can help control costs and improve cost effectiveness and efficiency. Yet, there is more that

[17]GAO, *2010 Census: Census Bureau Needs to Take Prompt Actions to Resolve Long-standing and Emerging Address and Mapping Challenges*, GAO-06-272 (Wash. D.C.: June 15, 2006), and GAO, *2010 Census: Costs and Risks Must be Closely Monitored and Evaluated with Mitigation Plans in Place*, GAO-06-822T (Wash. D.C.: June 6, 2006).

the Bureau can do in examining and refining its recruiting, hiring, and training practices and in preparing to enumerate in the hurricane-affected areas. Also, the functionality and usability of the MCD—a key piece of hardware in the reengineered census—bears watching as does the oversight and management of information technology investments. All told, these areas continue to call for risk mitigation plans by the Bureau and careful monitoring and oversight by the Commerce Department, the Office of Management and Budget, the Congress, GAO, and other key stakeholders. As in the past, we look forward to supporting this subcommittee's oversight efforts to promote a timely, complete, accurate, and cost-effective census.

Contact and Acknowledgments

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Individuals making contributions to this testimony included Betty Clark, Carlos Hazera, Shirley Hwang, Andrea Levine, Lisa Pearson, Mark Ryan, Niti Tandon, and Timothy Wexler.

Appendix I: Related GAO Products

2010 Census: Redesigned Approach Holds Promise, but Census Bureau Needs to Annually Develop and Provide a Comprehensive Project Plan to Monitor Costs. GAO-06-1009T. Washington, D.C.: July 27, 2006.

2010 Census: Census Bureau Needs to Take Prompt Actions to Resolve Long-standing and Emerging Address and Mapping Challenges. GAO-06-272. Washington, D.C.: June 15, 2006.

2010 Census: Costs and Risks Must be Closely Monitored and Evaluated with Mitigation Plans in Place. GAO-06-822T. Washington, D.C.: June 6, 2006.

2010 Census: Census Bureau Generally Follows Selected Leading Acquisition Planning Practices, but Continued Management Attention Is Needed to Help Ensure Success. GAO-06-277. Washington, D.C.: May 18, 2006.

Census Bureau: Important Activities for Improving Management of Key 2010 Decennial Acquisitions Remain to be Done. GAO-06-444T. Washington, D.C.: March 1, 2006.

2010 Census: Planning and Testing Activities Are Making Progress. GAO-06-465T. Washington D.C.: March 1, 2006.

Information Technology Management: Census Bureau Has Implemented Many Key Practices, but Additional Actions Are Needed. GAO-05-661. Washington, D.C.: June 16, 2005.

2010 Census: Basic Design Has Potential, but Remaining Challenges Need Prompt Resolution. GAO-05-09. Washington, D.C.: January 12, 2005.

Data Quality: Census Bureau Needs to Accelerate Efforts to Develop and Implement Data Quality Review Standards. GAO-05-86. Washington, D.C.: November 17, 2004.

Census 2000: Design Choices Contributed to Inaccuracies in Coverage Evaluation Estimates. GAO-05-71. Washington, D.C.: November 12, 2004.

American Community Survey: Key Unresolved Issues. GAO-05-82. Washington, D.C.: October 8, 2004.

2010 Census: Counting Americans Overseas as Part of the Decennial Census Would Not Be Cost-Effective. GAO-04-898. Washington, D.C.: August 19, 2004.

2010 Census: Overseas Enumeration Test Raises Need for Clear Policy Direction. GAO-04-470. Washington, D.C.: May 21, 2004.

2010 Census: Cost and Design Issues Need to Be Addressed Soon. GAO-04-37. Washington, D.C.: January 15, 2004.

Decennial Census: Lessons Learned for Locating and Counting Migrant and Seasonal Farm Workers. GAO-03-605. Washington, D.C.: July 3, 2003.

Decennial Census: Methods for Collecting and Reporting Hispanic Subgroup Data Need Refinement. GAO-03-228. Washington, D.C.: January 17, 2003.

Decennial Census: Methods for Collecting and Reporting Data on the Homeless and Others Without Conventional Housing Need Refinement. GAO-03-227. Washington, D.C.: January 17, 2003.

2000 Census: Lessons Learned for Planning a More Cost-Effective 2010 Census. GAO-03-40. Washington, D.C.: October 31, 2002.

The American Community Survey: Accuracy and Timeliness Issues. GAO-02-956R. Washington, D.C.: September 30, 2002.

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Mr. CLAY. Thank you, Mr. Scire, for your testimony, and thank you both for your testimony.

Without objection, we will recess at this time and reconvene in a matter of half an hour.

We stand in recess until we conclude the votes on the House floor. Thank you.

[Recess.]

Mr. CLAY. The subcommittee will reconvene.

Let me thank you both for your testimony. Hopefully, we will not be interrupted for votes between now and the conclusion of the hearing.

Mr. Waite, you in your testimony mentioned the issue of funding and partnership. Let me ask you, in 1998 the Bureau devoted a substantial amount of resources to the partnership program in preparation for the 2000 census. For fiscal year 2008, the President did not request any funding for partnership activities. I am concerned that this could have a negative impact on the effectiveness of census outreach efforts. How much additional funding would the Bureau need to receive in fiscal year 2008 in order to replicate the partnership program activities that were carried out in fiscal year 1998 for the 2000 census?

Mr. WAITE. Mr. Chairman, the partnership program is designed a little bit differently this time, and so we are planning to do more of our work closer to the census. But, in direct answer to your question, we would need about $18 million in what we call the regional partnerships to replicate what had happened in 1998. That is not the administration's plan right now, but that is what it would take.

Mr. CLAY. Well, if Congress were to appropriate the $18 million, would the Bureau use them to support partnership program activities in fiscal year 2008?

Mr. WAITE. Absolutely. The Bureau would use whatever money Congress appropriates for whatever purpose, and we would do that.

Mr. CLAY. OK. If so, what would the activities consist of and how would they benefit your efforts to achieve an accurate census?

Mr. WAITE. The activities that we did in 1998 involved what we called regional partnership specialists and regional partnerships where it would be spent in the field, where people in the regions would be going around and working with communities and city groups and other groups that are interested in the census to try to get them to form complete count committees and some of those sort of things to get the local communities involved into the census effort. That is the activity that the regional partnerships will do in 2009 for sure. That is the kind of thing they would do—hiring some individuals to organize and be catalysts for partnership activity out in the communities.

Mr. CLAY. OK. Thank you. Former Congressman and California State Senator John Burton, founder and president of the John Burton Foundation, and other interested parties from across the country have expressed great concern about the Bureau's plan to omit the foster care question from the short form and the American Community Survey. Would you please explain as clearly as you can to the layman's ear how including either of these questions would adversely impact the overall response rate?

Mr. WAITE. OK. Mr. Chairman, I don't believe that we would be able to say that it would adversely affect the response rate by including them. We have done a lot of research. We are very concerned about counting everyone, and certainly counting every child and every foster child in the census. That is our primary focus.

The question in mind is, after we have counted someone, we indicate how they are related to the head of the house or to the person on line one. In 2000, for the first time we had a separate category called foster child.

Mr. CLAY. Right.

Mr. WAITE. And the answers that we got from that, frankly, really were not all that good. We got information, but the information we had was only about 62 percent of the foster children that are accounted for on an adoption and foster care analysis reporting system that is run by Health and Human Services, where they actually have the rolls of the foster children. It is administrative records. They follow who these children are.

Our counts nationally were about 62 percent of that. The reason, primarily, we found as we did research, was that about 20 percent of foster children are actually in a home and their guardian is a relative. It might be a grandparent, might be an uncle.

Mr. CLAY. Yes.

Mr. WAITE. And so, even though we would ask them, if you are the uncle and you say OK, I am person No. 1, and now you have this foster child, how is this foster child related to you, well, he's my nephew, even though he is a foster child, as well. So the core people were not recording that as foster children. There is also about 20 percent of the foster children are in group homes where we don't know how to ask the question about the relationship to whom.

Certainly we would be happy to review that with you and talk about alternatives, but part of our consideration was we are not very confident about the numbers that we get, 62 percent of what we think is the national count. I'm not sure whether that is helpful to people, because it is not 62 percent in every State. In some States like California it is less than 40 percent, in other States it is actually over 100 percent, so there is a lot of disparity by States in our count. So the fact that data is not as good as we might have thought it was, combined with the fact that we do have a very crowded questionnaire—I don't know if you have seen our short-form questionnaire. I would be happy to show it to you afterwards. But there is a lot of information on the questionnaire.

Those two things caused us to find that we would probably be better off if we didn't have that particular category.

Now, the reason for the questionnaire problem has to do mechanically with the fold, but I want you to know that is not the death issue. We could probably find some way on the questionnaire. I raised the question whether it is really a good idea to collect data that is that far off of complete.

Mr. CLAY. Well, given how important the foster care data is to providing adequate services for foster children, will you commit to working with the subcommittee and with interested groups to find a way to include the foster care question on the short form?

Mr. WAITE. I absolutely will commit to working with you, and if I can't convince you that what we are doing is right, then we will find a way to put it on the form.

Mr. CLAY. OK. Let's look at that.

Also, the 2010 census, for the census the Bureau currently plans for the first time ever in decennial operations to use mobile computing devices for address canvassing, non-response followup, and census coverage measurement. In the past, these operations were completed using a paper only process.

Mr. WAITE. True.

Mr. CLAY. In the 2004 and 2006 tests, the MCD was not reliable and did not function as intended. What contingency plans does the Bureau have in case the handheld computer does not function in the 2008 dress rehearsal?

Mr. WAITE. Well, first let me put that in a little bit of context. In 2004 and in 2006 the handheld devices that we used were of our own purchase, and then we built the software. We realized in 2004 that most of the problems were software problems. We weren't able to program them well enough for them to perform properly. Based on that, we began the process to go out and get the private sector, who had a lot more expertise in that area, to help us.

We now have handheld devices that are being used in the dress rehearsal that are far superior in many ways. You can probably talk to the person from Harris who is, I think, on the next panel. They are far superior to the ones that we were using in 2004 and 2006. They are better programmed, they are faster. We have had pretty extensive tests on making them work. I am very confident that they are going to work properly in that test.

Mr. CLAY. How accurate are they now? I mean, do they actually record the address of a building?

Mr. WAITE. Yes, they do.

Mr. CLAY. And how does it deal with——

Mr. WAITE. And they record the address and also the GPS coordinate of that building.

Mr. CLAY. OK. How does it record all the addresses in an apartment building?

Mr. WAITE. It doesn't individually record the GPS coordinate of the individual apartments, but, just like we did with paper, you would go inside the building and you would indicate the apartment numbers on the handheld device, just like you would on a piece of paper. We get one GPS coordinate for that building, but you would get the individual addresses in that building just the same way you did with paper.

It is actually quite a bit better than paper, because now you already have it automatically in your files. When we did the paper lists we had to then send them somewhere and key the results, which oftentimes had quite a few errors associated with them.

Mr. CLAY. What percentage of success would you give the handheld, compared to your computers? What percentage of success?

Mr. WAITE. I think I could say that virtually all of the problems that we experienced in 2004 and 2006—they were problems of transmission, they were problems of speed, how quickly did the

machines turn around. All of those problems have been corrected by the new machine.

Mr. CLAY. OK. Thank you for your responses.

Mrs. Maloney, you may proceed.

Mrs. MALONEY. Thank you, Mr. Chairman. I welcome the witnesses and thank you for your testimony.

Mr. Waite, I was concerned about the lack of money, the $22 million that OMB requested from the partnership from OMB. Cutting that out just doesn't make sense to me whatsoever. I am very concerned about it. I would say that one of the key reasons that the 2000 census was better than the 1990 census was because we had this partnership, and I believe it is short-sighted and, if left uncorrected, will damage the government's ability to do a good census in 2010.

I would really like to quote from Don Evans, the former Commerce Secretary and Bush-Cheney campaign chairman, and a man with, I would say, impeccable conservative credentials, and he said this before the Senate Commerce Committee. "Partnerships, 140,000 in all with State, local, and tribal governments, community and advocacy groups, the private sector, religious organizations, educational institutions, and the Congress were key to building support and removing obstacles to participation in the census." So do you agree with Mr. Evans' statement?

Mr. WAITE. Absolutely.

Mrs. MALONEY. Then why is this $22 million cut out of your budget?

Mr. WAITE. We have a plan for partnership activities in 2009 and 2010. There isn't plans for that kind of work. It was actually $18 million. I think there may have been a misquote of the number when——

Mrs. MALONEY. So $18 million. How did it get removed? Did you request for it to be removed? OMB asked for it. How did it get out of your budget?

Mr. WAITE. We ask for a lot of things in prioritizing the census.

Mrs. MALONEY. Yes.

Mr. WAITE. From the various places of the census, we have a lot of issues that we would like to do. Invariably, there needs to be a priority setting of things that are more or less important. I think I can say that spending money on partnerships in 2008 was not a higher priority than anything in the census that we already had.

Mrs. MALONEY. But you are going to spend money in 2009 and 2010——

Mr. WAITE. Absolutely.

Mrs. MALONEY [continuing]. In the partnership?

Mr. WAITE. Absolutely.

Mrs. MALONEY. Well, how do the preparations for the 2010 census compare to a similar point in time in advance of 2000?

Mr. WAITE. You mean for the partnership program?

Mrs. MALONEY. Yes. No preparations at all.

Mr. WAITE. Well, preparations in all, I think this census is far advanced from where we were in 2000 in 1997. We are much better organized. We have tested our procedures a lot better. We are a long way ahead of where we were 10 years ago. The partnership program——

Mrs. MALONEY. Specifically, where are you ahead than where you were in 2000?

Mr. WAITE. We are a long ways ahead. We have an organized LUCA program, a local update of census addresses. If you recall, last time we were trying to play catch-up with it in 1997 and 1998. We sent materials to communities that they weren't ready for, they couldn't understand very well. We didn't have very good participation.

In contrast with that, we now have already mailed out the invitations to be involved in LUCA to all the 39,000 governmental units. We have a plan where we will do the LUCA in advance of address listing so we will have a clean way of verifying it. We are a long way ahead on that process.

On the budget process we are a long way ahead. In 1997 we were in chaos on the budget, not knowing where we were going and what we were going to do. We now have that in control and organized.

If you recall, and I'm sure you do, back in 1997 we were still trying to decide which of two tracts we might take in the census, and that was very, very difficult to try to run down two roads at the same time. I think we have a clear vision of where we are going now, how we are going to get there.

We have tested the procedures that we are putting into the census better this time, thanks really to the support of the Congress all during this decade, by far better than we have done in any census previously. I think we are way ahead.

Mrs. MALONEY. Well, what advice would you give to Congress in how we can help make the 2010 census better than the 2000 census? What can we do to help you?

Mr. WAITE. I think the biggest thing that you could do to help me, the biggest thing I worry about as I look down the road at the bogeymen that are coming, I think the biggest thing that I worry about is the continuing resolution at the end of this fiscal year. Our budget for 2008 is double what it was for 2007.

Mrs. MALONEY. Yes.

Mr. WAITE. We cannot go any distance at all into fiscal year 2008 with 2007 spending without sort of derailing the train. That is the thing I worry about a great deal, that whatever resources the census is going to get, we need to get them early in the fiscal year so that we can keep moving.

Mrs. MALONEY. Thank you. My time is up.

Mr. WAITE. Thank you.

Mr. CLAY. Thank you, Mrs. Maloney.

Mr. Scire, let me ask you, GAO recommends that the Census Bureau better target its recruiting and hiring for the characteristics of employees who are successful at census work and less likely to leave census work before an operation ends. What prompted this recommendation?

Mr. SCIRE. Mr. Chairman, we just completed a study that we have been working on over the last year looking at recruiting, hiring, and training. The reason that we looked at that is because it hasn't been something looked at often before, and also because it represents a significant cost to the overall census. So that is what prompted the work.

Mr. CLAY. If implemented, what impact do you believe the recommendation will have on recruitment and hiring for the 2010 decennial census?

Mr. SCIRE. The reason that we made the recommendation was that we thought the Bureau could gain certain efficiencies in its recruiting process, and also in its operations. At peak force, the census has half a million people that are working in the field. If they are earning, on average, $10 an hour, that means it is a $5 million an hour operation.

So to the extent that you can attract people that are going to be more effective at the work, and also those that are going to stay throughout an operation, you can save some number of hours of the operation. You could also reduce retraining for individuals that are joining the operation after others have left, or even training some at the outset that are not likely to continue throughout an operation. So we really looked at it in terms of efficiency of the recruiting process, as well as the efficiency of operations.

Mr. CLAY. In your written testimony you state that the Commerce Department has expressed reservations about implementing the recommendations GAO made for refining the Department's recruitment and hiring strategies for the 2010 census. What impact do you believe that this will have on the recruitment?

Mr. SCIRE. Well, I think that the Department expressed reservation largely because it does not want to be in a position where it has insufficient numbers of people to conduct the census, and we recognize that concern. That is why what we are talking about is not a major change in their operations, but rather a refinement.

So we think that by doing the analysis which would permit them to identify those who are more likely to do well with the work and to stay throughout an operation, that they could reduce their cost in terms of recruiting and hiring. That, I think, is the ultimate outcome that we are looking at.

Mr. CLAY. Thank you for that response.

GAO's analysis of the Census Bureau's figures on the average cost per housing unit for the decennial census concluded that the cost has increased from $13 in 1970 to a projected $72 for the 2010 census. That is in constant dollars for the fiscal year 2000 and amounts to a $59 increase per dwelling over 40 years. Over the same period, the overall mail response rate declined from 78 percent to 64 percent, as you reported. Some of this may be due to changing lifestyles of the population, namely people becoming more mobile. If you factor in the changing characteristics of the population, how would you rate the Bureau's efficiency in conducting the decennial census?

Mr. SCIRE. Well, I think we can say that the Bureau faces a daunting challenge, and particularly with trying to reach a population that is increasing reluctantly to respond. We have said before that we think that the reengineering is a positive thing, that this is something that has both objectives of controlling costs and also increasing accuracy.

So we look at the reengineering as something that will help ameliorate the trend that you see in terms of what it costs per household to enumerate.

Mr. CLAY. OK. Thank you for your response.

Let me thank both members of the panel for your responses to the questions. Believe me, this will be the first time but it won't be the last that you will be before this committee. I look forward to working with both of you. Thank you very much.

Mr. WAITE. Thank you.

Mr. SCIRE. Thank you, Mr. Chairman.

Mr. CLAY. We will take the second panel.

It is the policy of the Committee on Oversight and Government Reform to swear in all witnesses before they testify.

[Witnesses sworn.]

Mr. CLAY. Let the record reflect that all of the witnesses answered in the affirmative.

Our second panel today consists of five distinguished witnesses. We will go in this order, first with the Honorable Robert L. Bowser, mayor of East Orange, NJ, and vice chairman of Urban Policy Committee for the U.S. Conference of Mayors. Second will be Karen Narasaki, president and executive director of Asian American Justice Center, on behalf of the Leadership Conference of Civil Rights.

Then we will have the Honorable Kenneth Prewitt, professor of Columbia University and former Director of the U.S. Census Bureau from 1998 to 2001. Then we will have Dr. Joseph Salvo, director of the Population Division for New York City Department of City Planning, and Mr. Michael Murray, the vice president of programs, Civil Business Unit, Government Communications Systems Division for Harris Corp.

Welcome to all of you. Thank you for coming to day.

Mayor Bowser, we will begin with you. Please proceed.

STATEMENTS OF ROBERT L. BOWSER, MAYOR, EAST ORANGE, NEW JERSEY, VICE CHAIR, URBAN ECONOMIC POLICY COMMITTEE, U.S. CONFERENCE OF MAYORS; KAREN NARASAKI, PRESIDENT AND EXECUTIVE DIRECTOR, ASIAN AMERICAN JUSTICE CENTER; KENNETH PREWITT, PROFESSOR, COLUMBIA UNIVERSITY, DIRECTOR, U.S. CENSUS BUREAU (1998–2001); JOSEPH J. SALVO, PH.D., DIRECTOR, POPULATION DIVISION, NEW YORK CITY DEPARTMENT OF CITY OF PLANNING; AND MICHAEL MURRAY, VICE PRESIDENT OF PROGRAMS, CIVIL BUSINESS UNIT, GOVERNMENT COMMUNICATIONS SYSTEMS DIVISION, HARRIS CORP.

STATEMENT OF ROBERT BOWSER

Mr. BOWSER. Thank you, Mr. Chairman. I am Robert Bowser, mayor of the city of East Orange, NJ, and I currently serve as vice chairman of the U.S. Conference of Mayors Urban Economic Policy Committee. I appreciate this opportunity to appear on behalf of the Nation's mayors to share our views on the 2010 decennial census.

Before I go any further, I would like to commend you, Chairman Clay, and also Ranking Member Michael Turner, for your leadership on this subcommittee and your sensitivity to local concerns. We appreciate your support for local governments.

As mayors, we come to the census. We believe when it comes to the census nothing is more important than a fair and accurate

count of all the people residing in our cities. In a broad sense, the decennial census is the cornerstone of our democracy.

The central message I want to leave with you today is that it is critical that Congress provide full funding of the U.S. Census Bureau to ensure accuracy and cost effectiveness in planning and conducting the next census. For the past several years, the Census Bureau's budget has been vulnerable to amendments on the House floor. Members seeking money for other worthwhile projects, such as law enforcement, anti-drugs, and community policing, have seen the census funds as an easy target since the census budget is rising so quickly and significantly in preparation for the 2010 census.

During the 109th Congress, the House passed an appropriations measure that would have cut Census Bureau funds by $58 million. This cut threatened to disrupt the Census Bureau's implementation of the American Community Survey, which is designed to replace the traditional long form and provide more accurate and timely data.

To serve as a reliable replacement to the traditional long form, the American Community Survey must collect data from the entire population, including people living in group quarters such as college dorms, nursing homes, military barracks, and prisons. To offset the cut, the Bureau said it would have to eliminate group quarters from the American Community Survey. The Bureau also announced that the cut would force it to abandon plans to use GPS-equipped handheld computers needed to gather data information from unresponsive households. This would be unfortunate, because the new technology will save the Census Bureau an estimated $1 billion in the long term by eliminating the costly reliance on paper.

Fortunately, Mr. Chairman, following the November elections last year the new leadership in Congress restored full funding for the census in the fiscal year 2007 spending bill. This will allow the Census Bureau to fully implement the American Community Survey, as well as continued development of the GPS-equipped handheld computers.

For the new fiscal year, the Census Bureau has requested $797 million to continue preparing for the 2010 census. The new request amounts to $285 million increase over the current fiscal year and would allow the Census Bureau to continue census planning, testing, and development activities.

One of the key elements in assuring a fair and accurate census count is starting with the accurate address list of all housing units and group quarters within each community. In 1994, Congress passed the Census Address List Improvement Act to facilitate cooperation between the Census Bureau and local governments to improve the census address list. The Census Bureau operationalized the law in a program it called local update of census address [LUCA].

The congressional intent of the Census Address List Improvement Act was two-fold: first, Members believed that by drawing on the knowledge of local officials the Census Bureau would improve the quality of the address list; second, they believed the local government officials would have more confidence in the quality of the address list if they were active participants in the process and had

the opportunity to review the address list for their jurisdiction before the census.

We agree, as mayors, with the congressional intent of the Census Address List Improvement Act and we are eager to work with the Census Bureau to improve upon the process started for the 2000 census.

Many of the problems from the 2000 LUCA program can be resolved by bringing local government officials into the process earlier, committing greater resources to the address list process, and increasing education so that local officials and Census Bureau employees understand their shared goals.

In preparation for the 2010 census, the Census Bureau is making a number of changes to the LUCA program that will be tested in the 2008 census dress rehearsal. Among the changes, a single review cycle for all address types will replace the multiple-cycle review used for the 2000 census. The review period will also be extended from 90 days to 120 days, and designated local governments will be given two opportunities to review and provide feedback on the address lists for their area. They will also have the opportunity to repeal the results.

For mayors, the LUCA program is a very important step in ensuring a fair and accurate count in 2010. Unless we establish a complete and accurate address list in each community, it will be close to impossible to ensure the accuracy of the next census.

Again, the key to ensuring the successful implementation of LUCA is adequate funding that will allow the Census Bureau to conduct timely training, review LUCA submissions, 100 percent canvassing after LUCA submissions are incorporated, and allow for timely second chance review by local governments before the master file is finalized.

Mr. CLAY. Mr. Mayor, may I ask you to summarize, please?

Mr. BOWSER. I will speak of local.

Mr. CLAY. OK.

Mr. BOWSER. Mr. Chairman, because the program is so important, I directed my staff at home to develop a Census 2010 Review Committee to ensure oversight of our involvement in the LUCA program. We have input from our Department of Planning, Property and Maintenance, Code Enforcement, Public Works, Water Department, Tax Assessor's Office, and Mayor's Office.

Some of the major concerns we share are to make sure we receive a complete count of all new housing units, receive a complete review of all census tracts and population centers, receive a complete count of local mental health institutions, receive a complete count of our tenant population, and develop promotional materials targeting our Caribbean population to encourage them to participate, involve community-based organizations in our various neighborhoods to encourage participation.

The other thing is, this program, we need strong leadership crucial for the final years leading up to the 2010 census. As the Census Bureau shifts from planning to preparations, the current director Lewis Kincannon announced his resignation in November. Unfortunately, the administration has not nominated anyone to replace him. We feel the nominee should be a strong manager with highly respected scientific credentials and no political baggage that

can affect the Census Bureau's reputation as a nonpartisan statistical agency.

Thank you, Mr. Chairman.

Mr. CLAY. Thank you, Mr. Mayor.

I should have mentioned that each witness should summarize their testimony in order to expedite, because the committee has every statement.

We will begin now with Ms. Narasaki. Perhaps you can summarize. Please proceed.

STATEMENT OF KAREN NARASAKI

Ms. NARASAKI. Thank you, Mr. Chair. I also appreciate this opportunity to come before you and share with you the Civil Rights community's interest in census 2010.

As you know, I serve as Vice Chair of the Leadership Conference, which is one of the oldest and strongest national coalitions of civil rights groups. My organization co-chairs with NALEO, its civil rights task force, and for census 2000 Asian American Justice Center led the effort to educate the Asian American community.

I want to tell you we share with the chairman our concern about the lack of funding for the partnership programs. We believe that this census will be even more difficult to get people to cooperate quickly. We have, since 2000, growing immigrant communities and growing diversity of languages. We have had growing concerns about privacy, and also the crackdown on immigrants that has occurred since 9/11 has driven many people into the shadows. It is going to take much more effort with community-based organizations to get the same count, much less to improve the count that we had in 2000.

As you know, while we made progress in 2000, we still had a differential undercount of minority communities, which hurt certain cities and rural communities even more. These partnerships are really critical to making sure that minority communities really understand what the census is for, why you can trust the Bureau, what the privacy rules are, and how to participate quickly. And it pays for themselves, because, as the Census Bureau will tell you, every person that they don't have to do followup saves them enormous funding, so it is actually an investment that is effective, not just an expenditure.

We disagree with the statement that it is not important for the partnership program to be funded in 2008 because the reality is it takes communities a lot of time to ramp up for the census. One of the things that we found was those communities who put additional funding into the outreach did a better count than those that waited too long. This outreach program is important to get the community-based organizations advocating with their local governments to make sure that they are putting more money into outreach, and also building these effective complete count committees. We do not think that we can wait for 2009 and 2010 in order to have the kind of foundation we will need to make that program fully effective.

We are also concerned about the language assistance programs. We believe the Bureau has made great strides, and particularly for Spanish, but we think they are not giving enough lead time in

order to do the many other languages, at least the largest other languages. We found that, for community-based organizations to work effectively with the census, translations are key, and even the word census can be translated many times in different ways in different languages. So we need to have the Census Bureau settle on their translations early so that the community-based organizations and ethnic media know what the vocabulary is going to be so that they can be consistent in their outreach and education and not cause confusion in the community.

We also believe that there needs to be more funding put into the advertising campaign. That is, again, a campaign that will pay for itself, because the more people who again mail in immediately and do not require expensive person-to-person followup, the more money the Bureau saves.

In 2000 the advertising campaign really helped, we think, improve, particularly for minority communities. We think that more money needs to be put in this, and particularly for the Asian community, which has to advertise in many more languages than some of the other communities.

We hope that you will look at that with the Census Bureau.

We also want to comment briefly on the content determination. There was, again, a review of the racial categories. We believe the Bureau made the correct determinations on the race and ethnicity questions based on the research it conducted. We were concerned that the research methodology did not offer samples so as to really accurately measure the effect of the different forms of questions on the small populations, specifically the Pacific Islanders and the Native American communities, but we believe it is too late now to change any question in terms of the race question, because we know that even minor changes can vastly affect in unexpected ways the count of various minority communities.

Finally, it is important for me to note I share the mayor's concern about the American Community Survey. We are very concerned that there is not enough attention being paid on the language access and language outreach for this important survey. As you know, it replaces the long form, which provides very rich detail, much needed when looking at poverty and housing and other concerns that minority communities have. Yet, we feel that there is a significant undercount of small populations, and so we hope that is something that you will consider having a longer hearing on subsequently.

Thank you.

[The prepared statement of Ms. Narasaki follows:]

ADVANCING EQUALITY

Statement of
Karen K. Narasaki
President and Executive Director, Asian American Justice Center

Before the
Subcommittee on Information Policy, Census, and National Archives
Committee on Oversight and Government Reform
United States House of Representatives

Oversight Hearing on the Census Bureau's
Preparations for the 2010 Decennial Census Survey
April 24, 2007

Introductory Statement

In 1990, the US Census Bureau conducted its decennial count of individuals residing in the United States. The count disproportionately missed ethnic minorities, children, and immigrants. Asian Americans were among the disproportionately undercounted due to obstacles including cultural and linguistic barriers. For Census 2000, with the hard work of the Census Bureau on outreach initiatives in collaboration with the national community education outreach projects by many community based organizations, the Census Bureau was able to improve its count of the American population. However, there were still issues of undercount for many of the same communities.

While the ideal for a census is to achieve a complete count of all persons in the country, perfection in this context is impossible. The pragmatic reality is that the Census Bureau constantly strives to achieve the most accurate count possible and one that is better than counts achieved previously. The 2010 census will provide the Census Bureau with even more challenges in achieving an accurate count. The demographics of 2010 have changed drastically from 2000. Some communities, such as the Latino American and Asian American communities have experienced high growth rates in some communities. There is an increase in African and Caribbean immigrants. There are generally high levels of mobility for many who move from state to state, city to city. Additionally, recent natural disasters have displaced many people from their homes and have created a more complex, less traditional or static sense of household for many people. The Census Bureau must be able to understand these communities and situations and the unique barriers to an accurate count that may exist for them.

The Census Bureau also has to account for the fact that people are reluctant to voluntarily provide personal information to the government in an age of identity theft and in the wake of immigration raids and other dragnets that post-9/11 policies have created. Combined with the growing privacy concerns that have arisen from disclosures this decade that the Census Bureau has

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inappropriately shared information with government agencies, an increasing number of people, particularly minorities, are fearful of providing even the most basic of information asked on the census. The Census Bureau must overcome the many obstacles created by these factors in order to get an accurate count.

As we look towards Census 2010, there are many areas of improvement needed to achieve an even more accurate count of our population. The written testimony will address some of the obstacles that exist in achieving an accurate count and how we believe the Census Bureau can address them.

Organizational Background

The Asian American Justice Center (AAJC), formerly known as the National Asian Pacific American Legal Consortium (NAPALC), is a national non-profit, non-partisan organization that works to advance the human and civil rights of Asian Americans through advocacy, public policy, public education, and litigation.

AAJC has three affiliates: The Asian American Institute (AAI) in Chicago; the Asian Law Caucus (ALC) in San Francisco and; the Asian Pacific American Legal Center (APALC) in Los Angeles, all of which have been engaged in working with their communities to ensure an accurate count during past decennial census. APALC is a Census Information Center and established a Demographic Research Unit to make Census 2000 and other relevant research more accessible to the growing Asian American and Pacific Islander community and the organizations that serve it. AAJC also has over 100 Community Partners serving their communities in 24 states and the District of Columbia.

Together with our Affiliates and our Community Partners, AAJC has been extensively involved in working to eliminate the problems that have historically resulted in undercounting and underreporting of Asian Americans in federal data collection and analysis efforts, and in particular the decennial census count. AAJC conducted an extremely successful national Census 2000 outreach and educational project focused on the Asian American community. Through this project, AAJC and its Affiliates distributed over 750,000 linguistically and culturally appropriate community education materials and hosted or participated in over 865 community education activities, including panel discussions, presentations and press conferences.

Since the 2000 Census, AAJC has not paused in its efforts to ensure accurate and appropriate federal data collection and reporting on Asian Americans. AAJC has been a member of the Decennial Census Advisory Committee since the beginning of 2000. In 2005, AAJC became a member of the reconstituted and downsized 2010 Census Advisory Committee. In its advisory role, AAJC is able to assist the Census Bureau in understanding what research and programs would help the Bureau to effectively address the cultural differences and intricacies in various hard-to-reach communities, particularly in the Asian American communities, in order to get the most accurate count possible.

Additionally, AAJC currently co-chairs the Leadership Conference on Civil Rights' (LCCR) Census Task Force. LCCR is the nation's oldest, largest, and most diverse civil and human rights coalition, with nearly 200 member organizations working to build an America as good as its ideals. In its leadership capacity on LCCR's Census Task Force and in my leadership capacity as the Vice

Chair of LCCR, AAJC has kept LCCR members informed of important census policy issues and has facilitated conversation among the groups to build consensus recommendations for various census policy and outreach issues. One of the purposes for census data is the enforcement of civil rights laws and LCCR members are experts on related data issues and the need for accurate counts and data.

AAJC is pleased to provide comments on ongoing preparations for the 2010 Decennial Census survey by the Census Bureau. AAJC would like to request that this written statement be formally entered into the hearing record.

Undercount Concerns

Since 1940, the Census Bureau has attempted to measure its ability to accurately count the people in America whether it was through Demographic Analysis or the use of a separate coverage measurement survey. Duplicate responses lead to overcounts, while omissions, or missed persons, lead to undercount. Subtracting overcounts from undercounts results in a net undercount or overcount for each census. It is important for the Census Bureau to check its ability to achieve an accurate count through a coverage management program.

For each decennial census from 1940 to 1980, the national net undercount went down, as did the net undercount for specific population subgroups. However, since 1940, there has always existed a differential undercount – that is, non-Hispanic whites had lower undercount rates than people of color, or, stated another way, people of color were missed by the census more often than non-Hispanic whites. The differential undercount was also reduced each decennial census since 1940.

The 1990 census was a watershed moment for the Census Bureau. It was the first census that was less accurate than the one previous. The differential undercounts were the highest the Census Bureau had ever recorded. We also learned from 1990 that it was not only African Americans who suffered significant differential undercounts but also Latino Americans and Asian Americans.[1] American Indians on reservations had the highest undercount of any groups in the 1990 census, with an undercount rate over 12 percent.[2] The undercount of children was generally disproportionate. Children made up a quarter of the overall population in 1990, but accounted for slightly more than half of all persons missed by the Census Bureau.[3] The undercount of children of color was even more disproportionate. For example, the undercount for African American children was twice as high as that for non-Hispanic white children.[4]

In 2000, the Census Bureau worked to improve the accuracy of the count. Unfortunately, it was unclear how well the Census Bureau was able to count people. The final coverage measurement, the Accuracy and Coverage Evaluation (Revision II) ("A.C.E. Revision II"), results

[1] The 1990 census provided the first measurements on the undercounts for Latino Americans, Asian Americans, American Indians and Alaska Natives. In the previous decennial censuses, the only coverage measurements made were for "black" and "non-black."
[2] Howard Hogan And Gregg Robinson, What The Census Bureau's Coverage Evaluation Programs Tell Us About Differential Undercount, Paper developed by U.S. Census Bureau Population Division for the 1993 Research Conference on Undercounted Ethnic Populations *available at* http://www.census.gov/population/www/documentation/1993/conference.html.
[3] Barry Edmonston, The Undercount in the 2000 Census, *available at* http://www.prb.org/pdf/undercount_paper.pdf.
[4] *Id.*

showed a net national overcount of about one-half a percent.[5] However, a net national overcount/undercount of around zero masks a much larger counting problem. While it appeared that the net undercount for the entire population and the net undercount for some race groups were reduced, the results did not fit historical patterns for these race groups.

For example, the A.C.E. Revision II showed that Asian Americans nationally had a slight overcount. However, some of the Asian American subgroups believed that they were actually undercounted. This was particularly true for Southeast Asian communities.[6] There was a relatively high rate of duplication for Asian Americans in college living away from home, which likely offset any undercount of Asian Americans.[7] Despite the fact that in the end, the Census Bureau did not have confidence in the detailed findings and decided not to adjust the census numbers, the National Academy of Sciences' National Research Council did conclude with a fair amount of confidence that the net undercount and differential undercount by race/ethnicity were reduced from 1990. However, the panel also concluded that there existed a differential undercount of racial minorities in the 2000 census.[8]

For the 2010 census, it is important to look at what the Census Bureau is planning on doing to address the undercount and overcount issues. The Census Bureau is making a concentrated effort to minimize the overcount; its Fiscal Year 08 budget request includes development of a "master unduplication system." The budget request also makes note of the fact that the Census Bureau will "continue the research and implementation of methodologies to address multiple enumerations." For the 2008 Dress Rehearsal, coverage improvement operations include "the unduplication of persons and housing units," as well as the use of software for "improving the unduplication operation."

Unfortunately, it's less clear what specific steps the Census Bureau will take to address the undercount. The Fiscal Year 08 budget makes references to research on "coverage probes" and residence rules, which the Census Bureau believes might help identify households at risk of undercounting.[9] However, beyond these general statements about research on "coverage probes," the Census Bureau has not provided specifics of how they are going to go about developing these coverage probes and how they will use residence rules to help identify these households and

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[5] The A.C.E. Revision II estimated 33.1 million mistakes of all types, including 17.2 million erroneous overcounts (which primarily includes duplications and people counted in the wrong place) and 15.9 undercounts (e.g. people missed). The report says there were a minimum of 9.8 million duplications. Committee on National Statistics, National Research Council, National Academy of Sciences, The 2000 Census: Counting Under Adversity (2004), 240-241, 253.

[6] For example, many community leaders in Long Beach, California believed that the Cambodian population was once again undercounted in the 2000 census. As evidence, they cite the fact that during that year, school enrollment data showed a population of Cambodian children that was nearly as large as the entire Cambodian population as counted by the Census Bureau. However, 2000 census data also showed that people between the ages of 5 and 18 – roughly the school-aged population – accounted for only 37% of all Cambodians in California.

[7] Committee on National Statistics, National Research Council, National Academy of Sciences, The 2000 Census: Counting Under Adversity (2004), 241.

[8] For example, Black men appeared to have one of the most significant subgroup undercounts: 4.2 percent according to A.C.E. Revision II. *Id.*

[9] There are two ways to miss a person, thereby attributing to the undercount. First, the Census Bureau could miss the whole housing unit because they do not have the address or they have an incorrect address. Thus none of the people at the housing unit will be counted. Other witnesses will address this issue. The second way to miss people is for the Census Bureau to fail to capture other people who are within a responding household. These people can be missed for a variety of reasons, including fear of government and outsiders, limited knowledge of English, mobile people and households, and irregular household members such as households with two or more separate families residing there.

communities. Without the specifics, we cannot assess how well they will be able to address the undercount in 2010. What we do know is that if the Census Bureau takes concrete steps to address the overcount, but does not succeed in adequately addressing the undercount, we are likely to see a higher net undercount and higher differential undercount.

The 2008 dress rehearsal will give us an opportunity to check in to see how well the Census Bureau is doing counting people. The Census Bureau plans on utilizing a coverage measurement survey to test how well they are counting people. This will give the Bureau a chance to address potential undercount problems in 2009 and 2010 by possibly increasing their partnership and outreach efforts to ensure that the traditionally hard to count areas are being reached. While the measurement of undercount and overcount produced for the 2010 will not be used for statistical adjustment purposes, the Census Bureau need funds in place to carry out the coverage measurement survey. The information is still needed in order to figure out how well the Census Bureau did in accurately counting people, how accurate the census was from community to community, and if the resulting census count was fair.

Importance of Funding for Partnerships

The 2000 census partnership and outreach program was credited by many in the civil rights community and in the Census Bureau for helping to achieve one of the most accurate counts for many of our hard to count communities. Establishing partnerships with hard-to-count communities has been shown shown to reduce non-response follow-up costs and improve accuracy. As noted above, while the 2000 count was better than in the previous year, there is still a ways to go and improvements to be made to help achieve an even more accurate count in the face of growing privacy fears and concerns about potential government misuse. We believe that a partnership and outreach program that builds upon the successes in 2000 is a critical step towards a more accurate count.

The partnership program promotes a more accurate count by having government leaders, school leaders, faith-based leaders, and other kinds of community leaders communicate with their constituents about the importance of filling out their census form to the success of the economy and their community – their neighbors, their kids, their schools and so forth. This has proven to be a great success as respondents are interacting with leaders that they trust, rather than with a stranger representing the federal government, and have been more willing to participate in the census program.[10]

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[10] In fact, Director Kincannon pointed to these partnership relationships in addressing the Bureau's ability to count undocumented persons (without the Census Bureau asking or making determinations about their immigration status):

> If you're talking about undocumented aliens, our biggest problem is convincing them that we're not interested in their legal status, that under the law we do not share the detailed information we get with anyone else – not with the department of homeland security or with the FBI or anyone else. This is one of the things we try to convey vigorously through the Partnership program as well as advertising, to convince local leaders in churches and other religious institutions, in local businesses and local government, union leaders, community activists, and the like to whom these folks look for leadership with trust – they won't look to us for leadership with trust. We try to convey those messages through those intermediaries to make sure that they will answer.

Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

The Census Bureau itself has noted the value of a strong partnership program.[11] Despite touting the benefits of a strong and vibrant partnership and outreach program, the Census Bureau has not provided a specific plan for the partnership program, other than to say that the partnership program will mainly be addressed in Fiscal Year 09.[12] The Census Bureau is not planning to increase the funding for partnership workers in the regions in Fiscal Year 08. Rather, they are simply going to do the planning in 2008 while maintaining the small number of partnership workers who are currently out there and expanding the partnership program in Fiscal Year 09.

The Census Bureau is delaying its partnership work until 2009 because there is no funding for the partnership program in Fiscal Year 08. Director Kincannon testified that the Census Bureau had in fact requested $18 million for the partnership program in Fiscal Year 08 from OMB. Unfortunately, as Director Kincannon further testified, OMB zeroed that request out. The result is that the White House failed to request any money for the partnership program for Fiscal Year 08.

If the Census Bureau does not get adequate funding specifically in Fiscal Year 08 to do the partnership and outreach program, then the accuracy of the count, particularly of hard-to-count communities, is at risk. The reality is that advance planning is necessary to implement an effective partnership and outreach program. Time is needed for the Census Bureau to do the outreach to the organizations for the partnership program as well as to reach out to local governments and get them engaged in these efforts. Time is also needed for the CBOs, schools, churches and other partner groups to gear up for their outreach campaign to their constituents. Time is also need to allow these partner groups to raise funds from local philanthropists and other sources to do the outreach work. This time, and the advance planning, is particularly important for minority communities to adequately provide the outreach necessary for its constituents. Inadequate or nonexistent partnerships and outreach will result in high undercounts and differential undercounts.

This is simply unacceptable. In 1998, the Census Bureau's Regional Partnership budget was almost $6 million, with a ramp up budget of over $30 million for 1999 and almost $58 million in 2000. The total cost for the Regional Partnership program for the 2000 Census was $93,280,154. This budget was separate from the budget for the advertising contract. The Census Bureau today is behind the curve compared to where it was in 1998 regarding the partnership program and is jeopardizing the accuracy of its count in 2010. It needs the money in 2008 to begin developing an effective partnership program. 2008 is critical to the recruitment of the partnership specialists, the training of recruited specialists, and for these specialists to begin to develop the contacts they need for a successful program. Even if the Census Bureau was to receive full funding in 2009 plus the amount they requested from OMB for 2008, they would not be able to make up for lost time. Waiting until 2009 to fund the partnership program will jeopardize the overall count as well as severely undermine minority counts.

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[11] "[The Census Bureau] firmly and profoundly believe[s] that the partnership program in the regions helped us get a better census, which we did have in 2000. And even the normally hard nosed GAO and the IG and the Commerce Department shared that opinion even though they could not put out the facts that said this activity has resulted in three-tenths of an increase and response rate. So the opinion is universal that it is valuable." Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

[12] Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

Concerns of the Civil Rights Community Regarding Execution

Language Assistance Program

We are concerned about the Census Bureau's plans to provide language assistance to the many limited-English people that need help filling out their forms. Lack of English fluency is a real barrier in getting many limited English proficient persons to fill out their surveys. The Census Bureau's own focus group research found that Asian Americans believed that lack of in-language questionnaires and lack of English-language fluency were among the major barriers to having greater participation in the census among the Asian American communities. The focus group research also noted that some in the Arab American community are not comfortable enough speaking or reading English to complete the census forms. The Census Bureau must develop a language assistance program that addresses the language barrier to census participation.

The Census Bureau made strides to address respondents' language ability issues during the 2000 census. The Census 2000 mailout/mailback questionnaires were printed in six languages - English, Spanish, Chinese, Tagalog, Vietnamese, and Korean. The Census Bureau also produced Language Assistance Guides in 49 languages other than English. While the Census Bureau is to be commended for undertaking a variety of language assistance initiatives, the expansion of which was a significant improvement over the effort in 1990, there was still more that needed to be done. For example, the Census Bureau did not provide enough translated materials and questionnaires to meet the need and the demand. The Census Bureau also did not produce materials in a timely manner whereby the translated materials that were shared were shared so late in the process that they were not useful. There was no consistency in the translations used across Census Bureau materials, as there was no consistency in the language assistance provided from region to region, and locality to locality. Finally, there was inadequate publicity and coordination with CBOs to get what materials they did have. The Census Bureau must learn from these problems to build upon the successes of the 2010 program to make a more effective program in 2010

Director Kincannon noted in a hearing before the appropriations subcommittee that the Census Bureau's language plans are improved over 2000.[13] He further states that the same or greater number of languages will be involved in the preparation of questionnaires so that the Bureau can have questionnaires or questionnaire guides in many different languages. The Census Bureau also plans to have dual English-Spanish questionnaires that will be mailed in the original mailing of the census targeted to census tracts identified by ACS data where there are predominances of households where Spanish is spoken in the household. The Census Bureau tested the dual questionnaire; it showed that the dual questionnaire increases response rates, not only among people who speak Spanish, but among people who speak English in the home.

While the Census Bureau should be commended for the work that they have done to ensure that Spanish speakers are adequately assisted, we are very concerned that the Census Bureau has not done enough to begin planning for the other languages that must be assisted during the 2010 Census. The Bureau's plan to provide numbers that people can call to receive language assistance is a good starting point but, as they say, the devil is in the details. Planning must begin now in order to have time to recruit non-response follow up interviewers and bilingual operators to man

[13] Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

telephone assistance centers from communities so that the languages spoken in those communities are represented and to develop a translated glossary of terms for them to use. Advertising availability is also key. We were very pleased to see the Census Bureau conduct a series of extensive focus groups with hard to reach communities, including language minority groups. We applaud the Bureau's efforts to do the focus groups language minorities in their native languages. However, the Census Bureau needs to begin turning this information into action.

When you factor in the development of appropriate materials for promotion and outreach – leaflets for handing out to people, posters and other promotional materials – and questionnaire aids in different languages, the Census Bureau needs to start the process today. The Census Bureau is waiting for the awarding of the advertising contracts and the communication contracts.[14]

Translation is done one the basis of contracts, and there will be advertising and communication contracts or subcontracts that will be contracted out to reach specific hard-to-reach communities. However, the Census Bureau requested funding in the 2008 budget to plan the integrated communications strategy starting 2008. Then that strategy will be used going forward with requests for additional money to implement that strategy, presumably in Fiscal Year 09. Unfortunately, that will be too late for some of the languages that the Bureau must cover.

Some languages are simply more difficult to work with, such as some of the Asian languages. From the translations to the hiring of linguistically competent workers, more time will be needed to ensure that these communities actually receive assistance for the 2010 Census. One of the common complaints AAJC received following the 2000 census from local Asian American community-based organizations was that the Bureau was late in making critical decisions on the translations materials and there was no centralized clearinghouse of translated materials. Because of the lateness of the Bureau's decisions, CBOs did not have sufficient time to determine what needed to be produced to supplement the offerings nor were they able to adequately utilize the materials produced by the Census Bureau.[15]

Advertising Campaign

It is clear that more money is needed in the budget for advertising in language and to target language minority communities. The Census Bureau must also begin thinking about the language component of its paid advertising campaign. During the 2000 Census, AAJC heard from local CBOs that the Census Bureau's innovative advertising campaign did not reach many ethnic groups who needed in-language media the most. The 2000 campaign targeted the Asian American groups with the highest number of LEP individuals, but unfortunately, did not also target the smaller ethnic groups who have the highest rates of limited English proficiency and the highest percentage of linguistically isolated households. With a limited budget the advertising campaign failed to cover an adequate number of Asian languages and cultures, and the advertising agency was forced to make generalizations based on sometimes inadequate research.[16] Planning that begins today will

[14] Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).
[15] Asian American Justice Center, Asian Pacific Americans And Census 2000: Findings And Recommendations For Census 2010 (2001).
[16] *Id.*

allow the Census Bureau to make the appropriate funding requests to ensure that they are able to provide the language assistance needed.

Recruitment and Hiring

Director Kincannon testified that another component of the language assistance program will be recruiting locally for temporary workers.[17] The Census Bureau must recruit 1 million temporary workers to get the 500,000 temporary workers they will need to execute the 2010 census. Director Kincannon's commitment to recruiting, and presumably actually hiring, people who are "indigenous" to the communities where they will be working, indicates his recognition of the utility of the knowledge these workers bring – from the local knowledge of language to the local knowledge of neighborhood and culture.[18]

For the 2000 census, OPM waived the citizenship requirement for the hiring of the temporary workers for the census. This helped the Census Bureau to ensure that the person knocking on the door for the 2010 Census looked like and sounded like the person answering the door. This is particularly useful in collecting complete information from immigrant respondents, where they are more likely to be mobile, have complex household arrangements, and lack English-language skills and thus harder to count. People are more likely to respond to enumerators who share their same cultural background, language, and other such factors. Another exemption utilized by the Census Bureau in 2000 was an exemption for federal retirees to work as a temporary worker for the census that ensured that their retirement/pension was not impacted by their work with the Census Bureau. This is particularly relevant as we now see a huge wave of new retirees leaving the work force, which provides the Census Bureau an opportunity to recruit these new retirees so that the Bureau's temporary work force better reflects the population in this county. These two exemptions were key to helping to recruit the necessary workers. The Census Bureau should begin working with the necessary agencies to set those policies in place sooner rather than later – the decision to waive must be made early to avoid the confusion and uneven implementation of the waivers during the 2000 census. It will only help their recruitment, especially of bilingual workers for the various language groups.

Additionally, the Census Bureau should constantly strive to achieve a more diverse full time workforce. Many of the groups have met with the Census Bureau to discuss their concerns that the Bureau's workforce, particularly at the senior management level, is not as diverse as it could be. We believe that the Census Bureau must implement a hiring policy that recognizes the importance of having experts on various hard-to-count communities, including the Asian American, Pacific Islander and other minority communities, throughout the Bureau's operations. In particular, it is important for the Census Bureau to recruit and hire qualified persons of these communities in senior positions. These positions are particularly important for those programs and offices that are charged with ensuring that Census Bureau programs are adequately and appropriately addressing the outreach and data generated for these communities.

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[17] Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

[18] Hearing on Economic and Statistics Administration, Census Bureau, Bureau of Economic Analysis, Before the Subcomm. on Commerce, Justice, Science and Related Agencies of the H. Comm. on Appropriations, 110th Congress, March 7, 2007 (testimony of Census Bureau Director Louis Kincannon).

Agreement with U.S. Immigration & Customs Enforcement

The Census Bureau must also begin working with the U.S. Immigration & Customs Enforcement ("ICE") to limit their enforcement activity during the 2010 Census process. Unfortunately, enforcement efforts by the Immigration and Naturalization Service (INS), ICE's predecessor, despite a commitment to limit activity during the census, may have caused many immigrants to avoid participating in Census 2000.[19] The INS was slow to come out with guidance to its regional offices concerning enforcement during the census and failed to adequately communicate policy early in the process resulting in raids conducted in Arizona, Oklahoma, Washington State and Texas even after the release of guidance requesting offices to limit highly visible enforcement activities. Many immigrants, who had initially been convinced that they could safely participate in the census, were frightened because of the raids that took place.[20] The Census Bureau can ill afford this chilling effect, especially in light of recent data sharing and privacy concerns that have surface recently (*please see the last section for further information on these concerns*).

American Community Survey

Finally, while this hearing is focused on the preparations for the 2010 Census, I would be remiss if I failed to mention that another key component that requires oversight is the implementation of the American Community Survey (ACS). While the 2010 Census is important for reapportionment purposes, ACS data is equally important for nonpolitical purposes, such as governmental planning, appropriations and work done by non-governmental agencies. Because the ACS replaces the long form of the decennial census, it is important that the quality of data captured by the ACS is at a minimum the same as the long form. Ideally, the quality of data would be better, since the move to the ACS was designed to improve our ability to capture more current data. While 2005 was the first year of full implementation of the ACS, there remain issues regarding the implementation of the ACS and its ability to capture data, particularly for hard-to-count communities, including smaller population groups. Concerns include whether there is adequate language outreach to languages other than Spanish, the quality of data generally and specifically with regards to smaller populations, and the inclusion or exclusion of group quarters, such as dorms, prisons, and nursing homes. I look forward to a future hearing that delves deeper into the implementation of the American Community Survey.

Content Determination

The Census Bureau is to be commended for its process in making the content determination. Regardless of whether we were on the same side of any particular issue, the Census Bureau always made an effort to invite our input as members of the 2010 Census Advisory Committee on content issues.

The final content decisions came about as a result of a content development process that began early in the decade and included a series of tests that ended in a national content test in 2005. These tests were designed to examine alternative versions of questions and response categories to

[19] Asian American Justice Center, Asian Pacific Americans And Census 2000: Findings And Recommendations For Census 2010 (2001).
[20] Asian American Justice Center, Asian Pacific Americans And Census 2000: Findings And Recommendations For Census 2010 (2001).

determine which version would elicit the highest and most accurate response rates. The Census Bureau summarized its research from the decade and proposed what it believed was the appropriate content for the 2010 census questionnaire.

The Census Bureau then held a Special Joint Meeting of the Census Advisory Committees on November 30, 2006, which focused solely on the content for the 2010 census survey. The Census Bureau presented its recommendations and provided an extensive dialogue between committee members and the Bureau.[21] The committees then met themselves to discuss the soundness of the Bureau's content proposal. The committees in attendance were:

- 2010 Census Advisory Committee
- Census Advisory Committee of Professional Associations
- Race and Ethnic Advisory Committees
    - African American
    - American Indian and Alaska Native
    - Asian
    - Hispanic
    - Native Hawaiian and Other Pacific Islander

Generally speaking, each committee supported the Census Bureau's proposed content, including the decision to use the Hispanic-origin and race questions from Panel Six in the 2005 National Census Test.

Some committees offered their own recommendations at this meeting, including adding changes that would mainly affect the examples shown in specific race or Hispanic origins response categories. The Census Bureau took these recommendations under consideration and recognized the relevance of the advice gleaned from the meeting. However, the Census Bureau had to weigh the unknown benefits to the potential risk to data quality and census operations. Past censuses and past testing have shown that a slight change in wording or even ordering of questions can have profound and unintended consequences.[22] Taking these factors and more into consideration led the

[21] One of the major decisions the Census Bureau made was to recommend the use of a 2-part Hispanic origins and race question similar to the one used in the 2000 census rather than a 3-part modified Hispanic origins and race questions and a new ancestry question. This decision was the result of extensive testing on the part of the Census Bureau and followed a robust conversation over numerous census advisory committee meetings.

[22] For example, in the 2000 Census, the Latino count was impacted both positively and negatively by certain changes in the question format and wording. In 1990, the census form was structured so that the respondent was first asked to fill out what they considered to be their race, then they were asked to answer whether or not they were of Hispanic or Latino origin, and if so, what subgroup. For the 2000 census, the Census Bureau reordered the questions so that a respondent was first asked to answer the question on Hispanic/Latino origin and then the question on race. The Bureau found that reordering the questions lead to substantially more completed responses to the Hispanic/Latino origins question than in the previous census. Arthur R. Cresce, Audrey Dianne Schmidley and Roberto R. Ramirez, "Identification of Hispanic Ethnicity in Census 2000: Analysis of Data Quality for the Question on Hispanic Origin," U.S. Census Bureau Population Division Working Paper No. 75 *available at* http://www.census.gov/population/www/documentation/twps0075/twps0075.html#4.

However, on the negative side, the decision by the Census Bureau to eliminate the use of any examples for the "other Spanish /Hispanic / Latino" option that provided the opportunity for the respondent to write in a response had the unintended consequence of gathering less detailed data. Both Census questionnaires in 2000 and 1990 contained checkboxes for Mexicans, Puerto Ricans and Cubans, with an option for other Latinos to write a group name in another box. But the 1990 form included examples for the write-in groups - including Argentinean, Colombian and Dominican

Census Bureau to determine that all suggestions or recommendations from committee members could not be included in the final content. We agree that at this time no new or untested changes should be made to the content. Without testing, the risk is too great that the unintended consequence of a compromised census count could result.

Nominations for Director and Deputy Director

The resignations of the two top officials at the U.S. Census Bureau, Director Louis Kincannon and Deputy Director Hermann Habermann at the same time last fall is particularly troubling. We are specifically concerned about how these resignations will impact the on-going preparations for the 2010 Census, and other important Census activities, such as the implementation of the American Community Survey (ACS).

With the 2010 Census less than four years away, this is a critical time for our nation's efforts to ensure the most accurate count of its population. The 2010 Census is a complex undertaking which requires several years of careful and effective planning. The Bureau just recently made the final content determination of its "short form" questionnaire, is in the process of testing new technology for the collection of field data, and has barely begun laying the foundation for its outreach activities to improve the response rate to the decennial enumeration. The Bureau is also continuing its implementation of the ACS, an innovation which for the first time will replace the "long-form" in the decennial Census, and provide the nation with up-to-date data on a wide variety of demographic and social characteristics. While the Census Bureau is to be commended for moving quickly to replaced the outgoing deputy director with a seasoned veteran of the Census Bureau with over 30 years of experience and with intimate knowledge of the planning for the 2010 decennial census, the vacancy in the top position of the Bureau at this moment could have a detrimental impact on its ability to effectively carry out all of the foregoing activities.

We believe that it is crucial that the President and the Department of Commerce immediately appoint a successor for the Bureau's top position who is eminently qualified to the lead the agency's enumeration and data compilation efforts. The individual appointed must be a skilled statistician with superior management expertise and experience, especially with respect to the operational components of the decennial Census, the ACS and other Bureau data activities. At the same time, the individual appointed must not be identifiably partisan and must be someone with sufficient respect to last through 2010 and the implementation of the census.

Confidentiality and Privacy of Census Data & Breaches in Public Confidence

Finally, it is important to address the recent discovery that during World War II the Census Bureau turned over confidential information including names and addresses to help the government identify Japanese Americans.[23] While it had been known that the Census Bureau shared general aggregated data about where Japanese Americans lived with the government in 1942, new

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– while the 2000 questionnaire no examples. In New York City, the Census figures on Dominicans lagged behind those that city demographers had estimated, based in part on immigration figures, by almost 200,000. Additionally, two other Latino groups – Ecuadorians and Columbians – also appeared to have been undercounted. BOB PORT and RUSS BUETTNER, Census Won't Add Up for Dominicans 200,000 missed in undercount, Daily News, June 27, 2001 *available at* http://mumford.albany.edu/census/newspdf/dailynews1.pdf.

[23] Haya El Nasser, Papers show Census role in WWII camps, USA Today, March 30, 2007 *available at* http://www.usatoday.com/news/nation/2007-03-30-census-role_N.htm?csp=36.

documents reveal that the Census Bureau also shared information about individuals with the government during that period. This information included individuals' names, addresses and data on the age, sex, citizenship status and occupation of Japanese Americans in the area. This recent discovery highlights a huge concern for the civil rights community.

While the Census Bureau's actions were legal at the time due to the laws in place in the 1940s, many today question the ethical correctness of their actions. More importantly, there are practical consequences that flow from such actions and the disclosure of these actions. Actions such as these have the potential of having a very serious detrimental impact on the ability of the Census Bureau to collect data that we need.[24]

For example, following a LA Times article discussing the recent discovery of the individual level data sharing of Japanese Americans during World War II elicited the following two responses from readers:

> "I am shocked, shocked to learn that the Census Bureau has been sharing supposedly confidential data with other government agencies. I have always assumed that the Census Bureau shared such data, so I have always lied about everything on the census form except household income; after all, I don't want to raise a red flag for the IRS. Claims of national security will always trump any guarantee of privacy, legal or not, even if you are naive enough to believe that there are no "moles" working at the Census Bureau.
>
> There should be no expectation of privacy once your data are entered into a database. Major retailers cannot protect their databases from hackers, so I do not expect that the Census Bureau can do any better."
>
> "I can guarantee you that what information the census of 2010 wishes to have will not be forthcoming from me. A broken oath is a broken oath; there is no trust anymore."[25]

The Census Bureau cannot afford for these attitudes to prevail and will need to work even harder to ensure that these attitudes do not result in a less accurate count. Couple this attitude with a fear of government and outsiders, and the Census Bureau faces the very real possibility that people will refuse to fill out and mail back their census forms. Following the data sharing incident that occurred in 2004 when the Census turned over data regarding Arab Americans at the ZIP code level, the Census Bureau must make all efforts to boost public confidence in the census after this latest discovery.[26] The growing privacy concerns and distrust in the Census Bureau makes a strong

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[24] We believe that one of the lessons to be learned from this recent discovery is that we as a nation should be very caution of enacting overzealous legislation that overrides the Census Bureau's confidentiality obligations. Otherwise, we run the risk of these types of activities occurring and resulting in the decline or elimination of the public's trust and willingness to participate in future census.

[25] Letters to the Editor, Census questions, LA Times, April 5, 2007 *available at* http://www.latimes.com/news/opinion/letters/la-lew-census5apr05,1,1746876.story?ctrack=1&cset=true.

[26] While there was no sharing of individual information and the information was publicly available, concerns were raised by civil rights organizations about the impact such disclosure would have on the ability of the Census Bureau to accurately count people. The Census Bureau was responsive to these concerns that such disclosure could have a chilling effect on the willingness of people to fill out their forms, especially those of persecuted or discriminated classes. The

and vibrant partnership and outreach program even more necessary and important for an accurate count in 2010. The Census Bureau must begin rebuilding these bridges by starting their Partnership and Outreach program in Fiscal Year 08.

Conclusion

On behalf of AAJC and LCCR, I want to thank the Committee for the opportunity to provide a written statement on the Census Bureau's preparations for the 2010 Decennial Census. While the Census Bureau has taken steps to improve the count in 2010, there are still many areas where the Census Bureau needs to step up in order to counteract negative publicity and ensure full participation by the American public.

Census Bureau established the position of Chief Privacy Officer and now puts all requests for sensitive data through a rigorous approval process and makes all special releases of data available to the public.

Mr. CLAY. Thank you so much for your testimony.

Mr. Prewitt, please.

STATEMENT OF KENNETH PREWITT

Mr. PREWITT. Yes, Mr. Chairman. Thank you very much for this opportunity.

With your permission, I will focus on the oversight process more than the particularities of the census, itself.

I would like to start with three principles. I would urge that the subcommittee work with the Bureau to maximize public cooperation. That is obvious. On the other hand, we sometimes forget that there is no such thing as a national statistical system without the public engagement of the American people. That is, statistics are nothing more than the aggregation of millions of Americans honestly and voluntarily checking boxes, filling in forms, and answering questions.

Research conducted after census 2000 documented that the partnership program, the advertising program was enormously successful, certainly reaching into the minority population, in particular, as was just stressed by Karen. I conducted some of that research, myself, and with the permission of the chairman I would like to put into the record a summary of some of that research at the end of the hearing.

Mr. CLAY. Without objection.

Mr. PREWITT. Thank you very much.

The second thing I would mention by way of a basic principle is to ensure that the purposes of the census are explained to the American people. The decennial census is a nonpartisan starting point of a process that initiates a chain of events that moves from elections to representation to legislation, and the census is a marvelous teaching opportunity to explain to the American people the basics of our representative democracy, and I would hope that the advertising partnership program can make that one of the central messages.

The third principle, of course, is to ensure the highest quality results feasible. A census that is poorly conducted reflects unfavorably on the Government's ability to discharge a major constitutional responsibility. If well conducted, it signals to the public that the Government can effectively carry a large, complicated, and expensive task on schedule, on budget.

The subcommittee does not have to worry about whether the professionals at the Census Bureau want a quality census or will work endless hours to ensure that outcome. It does not have to worry about the intentions of the Bureau, but it does have, nevertheless, to exercise its oversight responsibilities in determining whether census operations are working as planned and whether the Bureau has the staff and financial resources to execute its plan.

So I would like to suggest a sort of theory, if you will, of how to approach the oversight responsibilities as follows: First, similar to today's hearing, what we would call sort of hearings on design issues to bring in outside voices so that the subcommittee has a high level of comfort with the design that the Census Bureau was going to implement. In 2000 we did not have the benefit of that high level of comfort between the Census Bureau and this sub-

committee, and that hurt the census. I would hope under your leadership that you would reach that high level of comfort with the program at the Census Bureau, even as some of the earlier questions to Mr. Waite suggested, working on particular questions or what have you.

But at a certain point the design has to be locked down. Beyond this point it is actually counterproductive to try to use the congressional oversight to fine-tune census operations at that moment I would suggest that the next major thrust of the oversight process would be to ask whether the Bureau has the resources, personnel and financial, to execute the plan that has now been agreed upon with the subcommittee.

We remind ourselves constantly that the census cannot be postponed if there are funding delays. The Bureau has no choice but to proceed with optimal operations, as Jay Waite just mentioned.

One thing that you want to stress, I think, in the second phase of the oversight hearings is whether the Census Bureau has in mind a Plan B if Plan A encounters troubles. For that there will have to be some contingency funding. No census can proceed on the assumption there is not going to be some unexpecteds. There will be unexpecteds, and it will take some sort of cushion to allow the Census Bureau to be quick and effective in responding to that.

Finally, then, I would think that the congressional subcommittee under your leadership would turn to implementation issues. As the operations commence, hearings should be guided by one overriding question: is the census on schedule, on budget. It is the no surprise principle. No one wants a failed census, as the 1990 census was sometimes called, not the Congress, not the Census Bureau, and certainly not the American people. The only way to guard against this low possibility is for the subcommittee to focus on major problems that threaten the successful implementation of the agreed-upon design and to take necessary corrective action.

The census proceeds against a relentless calendar. April 1, 2010, is the fixed census day, and a short 9 months later is the deadline for the first and most important deliverable, the State-by-State reapportionment counts.

Already I have no doubt Census Bureau leadership is anxious about those looming dates, every day asking themselves are we on schedule, are we on budget. I invite the subcommittee to constantly ask that question.

Thank you, sir.

[The prepared statement of Mr. Prewitt follows:]

Prepared for Hearing on April 24, 2007

Subcommittee on Information Policy, Census, and National Archives

"Congressional Oversight of the 2010 Decennial Census"

The Honorable Kenneth Prewitt
Carnegie Professor of Public Affairs, Columbia University; and,
President, State of the USA

It is an honor and pleasure to offer testimony on the plans for Census 2010. My focus is less on the specifics of the Census Bureau's reengineering than on how the Subcommittee, on behalf of the Congress and the public it represents, might effectively exercise its Oversight of the preparation and execution of Census 2010. I draw on my tenure as Director of the Census Bureau during the 2000 census.[i]

Three principles organize my recommendations.

Ensure that the census is designed to maximize public cooperation.

The census and the broad federal statistical system of which it is a part depend on a high level of public cooperation. National statistics are nothing more than the aggregation of millions of Americans honestly and voluntarily checking boxes, filling in forms, answering questions. *There are no statistics without public cooperation.* The Census Bureau achieved unexpected and under the conditions unprecedented levels of public cooperation in the 2000 census. Research conducted after the 2000 census, reported in *The Hard Count: The Political and Social Challenges of Census Mobilization* (Russell-Sage Foundation) document how and why this happened. Findings from that research suggest to me that it is reasonable to expect that a public outreach effort similar to what was mounted in 2000 will achieve similar levels of cooperation in 2010.

Ensure that the purposes of the census are explained to the American people.

The decennial census is the nonpartisan starting point of a process that initiates a chain of events that moves from elections to representation to legislation. A short-form only decennial census, explained to the public during an extensive mobilization campaign, provides an unparalleled "teaching moment" on the basics of representative democracy. The advertising and partnership programs should be designed with this message in mind.

Ensure that the operations of the census will produce the highest quality result feasible.

[i] More detail on "lessons learned in the 2000 Census relevant to the 2010 census" appear in a booklet I authored in 2003, Politics *and Science in Census Taking* (published by the Population Reference Bureau jointly with the Russell Sage Foundation) With the permission of the Chairman, I would like to enter it into the record as supplement to my comments today.,

The census is one of the most visible activities carried out by the federal government, and has been so since 1790. If it is poorly conducted, it reflects unfavorably on the government's ability to discharge a major constitutional duty – fairly allocating political representation by counting every member of society, once and only once, and in the right location. If it is well conducted, it signals to the public that the government can effectively carry out a large, complicated, and expensive task on schedule and on budget.

The Subcommittee does **not** have to concern itself with whether the professionals at the Census Bureau want a quality census, or whether they will work endless hours to assure that outcome.[ii] Neither does the subcommittee have to determine if due diligence has been exercised in designing the many, many operations that go into planning and executing a census. The Census Bureau will not put in place an operation in which it has no confidence, anymore than NASA would design a space ship that it thought would not reach its destination. The analogy is deliberate. NASA has not always succeeded – "faster, cheaper, better" was not a blueprint for success.

To suggest that the Subcommittee does not have to worry about the intentions of the Census Bureau is not to sidestep the legitimate and important oversight responsibility in regularly determining whether census operations are working as planned, and whether the bureau has the staff and financial resources to execute the plan.

With these principles in mind, how might oversight hearings be structured between now and the conclusion of Census 2010?

A. Census Design Hearings. Similar to today's hearing, use outside voices and expertise in order to bring the Subcommittee to a high level of comfort with the bureau's preparations for 2010 – with the features of short-form only census, with the LUCA design, with what has been learned in the early experiences with the ACS, with the importance of the mobilization campaign (including, I strongly urge, a partnership component), with the mobile computing devices, etc. These hearings should, of course, focus on operational features that are new to the 2010 census.

In the course of these hearings, it is extremely important that the Subcommittee and the Census Bureau agree to a date certain when the basic design has to be locked down, after which hearings designed along the lines of the one being conducted today should end. Beyond a certain point in the design process it is counter-productive to try to use congressional oversight to fine-tune census operations. It was the long delay in freeing the Census Bureau to fix on a plan for Census 2000 that nearly derailed it.

B. **Census Resource Hearings**. When the design has been finalized, congressional oversight should turn attention to resources – personnel and money. The major issue

[ii] Members may think it odd that I stress this point. But, in the eighteen hearings conducted by the predecessor of this subcommittee in 1999-2000, there were occasions when it seemed as if some members of the subcommittee doubted the integrity and dedication of the Census Bureau staff.

becomes whether the bureau has what it needs to execute the plan. I cannot stress strongly enough that once the final design is fixed and operations commence, any uncertainty about funding – levels and/or schedule of availability -- is very hard on the census. *The decennial census cannot be postponed.* If there are funding delays, the Census Bureau has no choice but to proceed with sub-optimal operations.

In this second phase of its hearings, the Subcommittee should be alert to contingency planning. Does the Census Bureau have in mind a plan B if plan A encounters problems?

Part of contingency planning is to accept that no decennial census unfolds strictly according to plan. There is always the unexpected. In 2000, for example, though a large number of things did proceed as planned, we did not anticipate the huge outcry over "privacy" issues that erupted when the long form reached American households. This hurt the census – leading to an approximately five percent lower mail back rate than would otherwise have been achieved. Without here predicting what the "unexpecteds" will be in 2010, I am confident that they will occur. No census can meet the test set forth in the principles cited above without contingency funds. I strongly urge this Subcommittee to work with the OMB and the appropriation committee to provide contingency funds. Our ability in 2000 to deal with unexpected problems and challenges resulted not only in a good census, but one that in the final analysis saved the country money. Census 2000 came in under budget.

C. **Census Implementation Hearings.** As operations commence, hearings should be guided by one overriding question: *Is the census on schedule, on budget?*

No one wants a "failed census" (as the 1990 census was sometimes, if inaccurately, described) – not Congress, not the Census Bureau, and not the American people. The way to guard against that (low) possibility is for the Subcommittee to focus on major problems that threaten the successful implementation of the agreed upon design – and to help, as necessary, the Census Bureau to take corrective action, quickly.

The census proceeds against a relentless calendar. April 1, 2010, is the fixed census day, and a short nine months later is the deadline for the first and important deliverable – the state by state counts that meet the Constitutional requirement to reapportion the House of Representatives. The Census Bureau leadership, I have no doubt, is already anxious about those looming dates, everyday asking – *are we on schedule, on budget?*

Thank you for this opportunity.

Mr. CLAY. Thank you very much for that expert testimony. I appreciate it.

Dr. Salvo, you may proceed.

STATEMENT OF JOSEPH SALVO

Mr. SALVO. Chairman Clay, I want to thank you for the opportunity to speak today on behalf of Mayor Michael Bloomberg. I want to thank you for the opportunity to talk about some very important census issues. I would also like to extend a thank you to Congresswoman Maloney for her support.

The decennial census is all about accuracy. First and foremost, accuracy is based on the quality of the address list that is used by the Census Bureau to mail questionnaires to most households in the United States. This is because it is not only important to be counted, but to be counted at a specific location, the right place.

For most households in the United States, census questionnaires are mailed to exact addresses. An exact address is a location with a number, street name, and apartment designator. Names are not used to mail census questionnaires. The entire census operation is based on an assumption that the list of exact addresses in what is called a master address file will tie a questionnaire to a specific household, to a specific housing unit. Moreover, when a household fails to respond, these exact addresses become very important in determining locations for field workers to go so that they can obtain responses.

While the Census Bureau has worked very hard in trying to update the master address file over the last few years, the fact is that real conditions on the ground have outpaced their capability, their capacity to keep the address list current in many areas. New construction, conversion of buildings from non-residential to residential use, garages that get converted to residences, attic and basement apartments, building subdivision, all of these things affect their ability to capture units.

Fortunately, as you have heard, we have the local update of census addresses program [LUCA] program. A common activity in the LUCA program involves receipt of a file, the actual nest or address file from the Census Bureau by the local government, and that file is compared to locally derived lists. These lists can be from E–9–11 addresses; residential water, sewer, utility accounts; records of real property for tax purposes; construction permits; certificates of occupancy. The list goes on.

The Census Bureau is currently conducting LUCA promotional meetings throughout the country in an effort to encourage participation. While the Census Bureau's efforts are admirable, our experience with the program indicates that the Bureau has not allowed enough time up front for localities to prepare. Technical training needs to begin several months before delivery of the files to localities so that they can compile and format their data to allow for efficient comparisons in the allotted time. The LUCA program, while important, is only part of the answer to the problem of compiling an accurate address list and achieving an accurate count of population. This is because of incomplete or absent labeling of apartments, the basement or the attic with a tenant, the extra ten-

ant in the garage, the one-family house that has been subdivided into three apartments.

There is an illustration, a picture at the end of my written testimony labeled illustration one that gives an example of such a property. Labels are usually not obvious when field workers conduct their canvassing operations before the census, and even when these apartments are obvious, rules do not exist on the use of labels. Most important, the absence of apartment designators means that many of the housing units will not be captured in the census because questionnaire delivery by the Postal Service is compromised. In many places you have a single mailbox, tenants sort their own mail, mail is sorted by a letter carrier using names. These are options that are not captured by the delivery of census questionnaires. Illustrations two and three in my handout give you some examples.

Since questionnaires do not include names when they are mailed, the Census Bureau relies on the link to an apartment number to connect the housing unit with the questionnaire. The bottom line is that in many neighborhoods accurate labels do not exist. This deficiency means that the math is inaccurate in many places because it does not reflect all the addresses that exist.

For more than 2 years, the Census Bureau has been conducting research on alternate methods to count people in small, multi-family buildings where apartment numbers are confusing or non-existent. We all have a responsibility to provide the Census Bureau with information, but the Census Bureau needs to use a new procedure—a procedure that they actually have used before but it would be new in these areas—called update enumerate, where census workers walk around blocks with their address list in hand, knock on doors, update addresses, and count the persons behind those doors, with a set of rules regarding how to label apartments.

Because the 2010 census will only include a handful of questions, we have the short form only census, it should be easy to do this. Congress should encourage the Census Bureau to identify and target neighborhoods with a preponderance of these non-traditional addresses and implement what are called update enumerate methods.

Thank you very much.

[The prepared statement of Mr. Salvo follows:]

IMPROVING THE ADDRESS LIST FOR THE 2010 CENSUS PROGRAM

Joseph J. Salvo
Director, Population Division
NYC Department of City Planning

Testimony submitted to the Subcommittee on Information Policy, Census and National Archives, Committee on Oversight and Government Reform, April 24, 2007.

Good afternoon, Chairman Clay, Ranking Member Turner, and members of the subcommittee. I am Dr. Joseph Salvo, Chief of the Population Division at the Department of City Planning of the City of New York. On behalf of Mayor Michael Bloomberg, I want to thank you for the opportunity to speak about issues related to the 2010 Census. I would also like to extend a thank you to Congresswoman Maloney for her support on this issue. It is important to emphasize, that while I do represent the interests of New York City, the issues I discuss in my oral and written testimony are relevant for many of the nation's small, medium and large cities

Accuracy and the Census Bureau Address List

The decennial census is all about accuracy. The constitutionally mandated objective of fair representation in the Congress and the distribution of some 300 billion dollars in federal assistance to states and localities are based upon numbers that are assumed to be of the highest quality. Local communities applying for funding need to demonstrate need in an accurate fashion. Stretching limited resources to enhance the commute to work, improve the provision of police and fire services, and identify groups at risk for health problems as a means of protecting public safety are just a few examples of real activities that are affected by counts from the census and characteristics information from the American Community Survey (ACS).

First and foremost, accuracy is based on the quality of the address list that is used by the Census Bureau to mail questionnaires to most households in the United States. This is because it is not only important to be counted, but to be counted at a specific location, such as a housing unit, or for a small segment of the population, in some kind of facility (called a "group quarters"). So, accuracy means more than being counted; the Census Bureau needs to count people in the right locations, and these locations are determined using an address list called the Master Address File (MAF).

For most households in the United States, census questionnaires are mailed to "exact addresses." Exact addresses are locations with a number, street name and apartment designator. (It is important to remember that names are not used for questionnaire delivery.) The entire census operation is based on an assumption that the list of exact addresses in the MAF will tie individually mailed questionnaires to all households in the United States. Moreover, when a household fails to respond, these exact

addresses become very important for determining the locations where field workers must go in order to make site visits and obtain responses. In reality, if you cannot be linked to a geographic location, you do not exist for the purposes of the census count.

Developing and Refining the Address List

The creation of the Census Bureau address list as a permanent list began with the 2000 Census. Unlike previous censuses where the address list was discarded after census operations ended, the Census Bureau kept and continues to modify the 2000 address list. One big reason for this is the advent of the ACS, a critical part of the new decennial census program that collects most of the social and economic data on a continuous basis, and publishes results more than once a decade. The ACS sample comes from the Census Bureau's list of addresses. So, the accuracy of the MAF not only affects the decennial count but also has a direct bearing on the data generated from the ACS.

While the Census Bureau has worked hard trying to create and update the Master Address File (MAF) over the last few years, the fact is that real conditions on the ground have outpaced their capacity to keep the address list current in many areas. New construction, conversion of buildings from non-residential to residential use, garages that get converted to residences, attic and basement apartments, and all kinds of building subdivision sometimes evade the address capture process. Also, some housing apartment configurations do not possess apartment numbers in any conventional sense: the attic "apartment" being rented to a college student; a one-family house that has been subdivided into two or three housing units that are not obvious from the street, since mail is delivered to a single mailbox and sorted by tenants; garages with a spare room that is being rented; the list of examples can go on and on.

The records from the U.S Postal Service that the Census Bureau relies on to update the address list are sometimes not enough to keep the list current. To their credit, the Census Bureau and the Congress recognized this after the 1990 census, and made provisions for local input into the address list for 2000, with the adoption of the Address List Improvement Act of 1994. Census addresses are protected by Title 13 of the U.S. Code. For the first time, the Census Bureau was able to share address

information with local governments that signed agreements to keep the address information confidential. This permitted the Census Bureau to tap into a vast amount of on-the-ground knowledge about addresses that could make the list more accurate.

Local Update of Census Addresses Program (LUCA)

The Local Update of Census Addresses (LUCA) program provides an opportunity for local governments to review and edit the MAF for their areas, using local information. A common form of LUCA activity involves receipt by the local government of the actual MAF, comparing the addresses with locally-derived lists, and submitting changes to the Census Bureau for its review and adoption. A variety of local lists can be employed for this activity, including E-911 addresses; residential water/sewer/utility accounts; records of real property for tax purposes; new construction permits and/or certificates of occupancy; demolition permits; and vacant structure inventories.

While there is evidence that the 2000 Census LUCA program did improve the address list, participation throughout the nation was anything but uniform, with many localities not possessing the resources to review and comment on the MAF. Despite these shortcomings, those governments that did participate benefited from the program.

The LUCA program is being repeated for 2010, and the Census Bureau is making an effort to expand participation. The Census Bureau is currently conducting promotional meetings throughout the country in an effort to encourage participation. Beginning this August the Census Bureau will begin delivery of address files to localities and provide technical training on how to participate. After delivery of the file, each locality will have 120 days to submit its changes to the Census Bureau. While the Census Bureau's efforts are admirable, our experience with the program indicates that the Bureau has not allowed enough time, up front, for localities to prepare. Technical training needs to begin several months *before* delivery of the files to localities so that they can compile and format their data to allow for efficient comparisons in the time allotted. Research on 2000 Census LUCA showed that assembling lists for comparison before receiving the actual LUCA file, focusing on the most

difficult addresses, field checking and documenting any changes, and working with others to pool resources, led to success among governments that participated. It also revealed that other governments were discouraged because the requirements of the program required too many resources in a concentrated period of time. Frequently, the whole program rested on the shoulders of a single person: the town clerk, tax assessor, building inspector or other workers who have full-time responsibilities, with LUCA as an adjunct activity. Therefore, Congress should encourage the Census Bureau to begin technical training earlier -- May or June of this year -- so that local governments develop a clear understanding of what constitutes an acceptable LUCA submission.

LUCA: Necessary But Not Sufficient

The LUCA program, while important, is only part of the answer to the problem of compiling an accurate address list and achieving an accurate count of the population. That is because of incomplete or absent labeling of apartments: the basement or attic with a tenant, the extra apartment in the garage, the one-family house that has been subdivided into three apartments (see Illustration 1). Labels are usually not obvious when field workers conduct pre-census canvassing operations and, even when these apartments are obvious, rules do not exist on the use of labels. Most important, the absence of apartment designators means that many of the housing units will not be captured in the census because questionnaire delivery is compromised. In many of these places, a single mailbox exists and tenants sort the mail on their own, or mail is sorted by the letter carrier using names on boxes, options that are not captured by census questionnaires (see Illustration 2).

Since census questionnaires do not include names when they are mailed, the Census Bureau relies on the link to an apartment number to connect the housing unit with the questionnaire. The bottom line is that in many neighborhoods in small, medium and large cities, accurate labels do not exist. This deficiency means that the MAF is inaccurate in many places because it does not reflect all of the addresses that exist. The result is that many housing units will be excluded from the 2010 census. Compounding this problem, even when the census questionnaire makes it to their unit, at least some persons living *within* these households are unlikely to respond because of issues involving illegal

occupancy or a general fear of government. This problem has been acknowledged by at least three scientific panels convened at the National Academies, starting in the late 1980s.[1]

The Census Bureau acknowledges the existence of these problems and has taken steps to address them. Indications are, however, that the proposed solutions are coming up short. On the issue of apartment labeling, the Census Bureau is working to develop nomenclature for its field staff that can be used in the 2009 block canvass operation, where field workers walk all of the blocks in the nation to check addresses. With the aid of local knowledge, it is our hope that the Bureau will be able to sort out the apartments in small multi-family buildings. These labels, however, provide no assurance that questionnaires will find their appropriate delivery points, especially since there is no direct link to labels that the postal service uses to deliver mail. Apartment designator confusion is still a likely result, with efforts to collect data from non-responding households (which should be a high priority in many neighborhoods with these problems) hindered by an inability to sort out those who answered from those who did not (see Illustration 3).

Enter Alternate Methods: Update/Enumerate

For more than two years, the Census Bureau has been conducting research on alternate methods to count people in small multi-family buildings where apartment numbers are confusing or non-existent. Part of the impetus for this undertaking comes from research after the 2000 Census that showed a large number of duplicate addresses were included in the census count.[2] Filtering out duplicate addresses means sorting through these apartment number problems; identifying areas that are prone to such problems has been an important research objective.

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[1] Citro, Constance F., D.L. Cork and J.L Norwood (Editors) *The 2000 Census: Counting Under Adversity.* Panel to Review the 2000 Census. Committee on National Statistics, National Academy of Sciences, 2004: 140, 341-2; Cork, Daniel L., M.L. Cohen, and B.F. King, (Editors). *Reengineering the 2010 Census: Risks and Challenges.* Panel on Research on Future Census Methods. Committee on National Statistics, National Academy of Sciences, 2004: 156-9; Cohen, Michael L., A.A. White, and K.F. Rust (Editors) *Measuring a Changing Nation: Modern Methods for the 2000 Census.* Panel on Alternative Census Methodologies. Committee on National Statistics, National Academy of Sciences, 1999: 42.

[2] Citro, Constance F., D.L. Cork and J.L Norwood (Editors) *The 2000 Census: Counting Under Adversity.* Panel to Review the 2000 Census. Committee on National Statistics, National Academy of Sciences, 2004: 27-28.

The Census Bureau has experience with alternate counting methods for situations where addresses are known to be problematic for mail delivery. This procedure is called *Update/Enumerate* and involves census workers walking blocks with an address list in hand, knocking on doors, updating addresses, and ***counting*** all persons "behind the doors." With a set of rules in hand regarding how to label apartments, a census worker hired from the local community has the best chance of counting all persons and penetrating the barriers that compromise the count. And, because the 2010 census questionnaire will contain only a handful of questions, the burden on field staff will be lessened compared to 2000, when both short and long forms were used in the field. In 2000, the Census Bureau employed these Update/Enumerate methods in less than one percent of all the blocks in the nation. Most of these were in resort areas, Colonias on the Mexican border, and on American Indian reservations.

It is now time to expand the use of this method in small, medium and large cities, areas that have been identified as having problematic addresses because of the apartment number issues I have just outlined. The irony is that the Census Bureau knows the benefit of using Update/Enumerate and is conducting research to target blocks where census takers could use this method effectively. Urban Update/Enumerate, however, is not currently included in the 2010 census plan, nor are there any plans to test the method in the 2008 Dress Rehearsal. In other words, we have an acknowledgement of the problem, research on how to solve the problem, but no plan of execution.

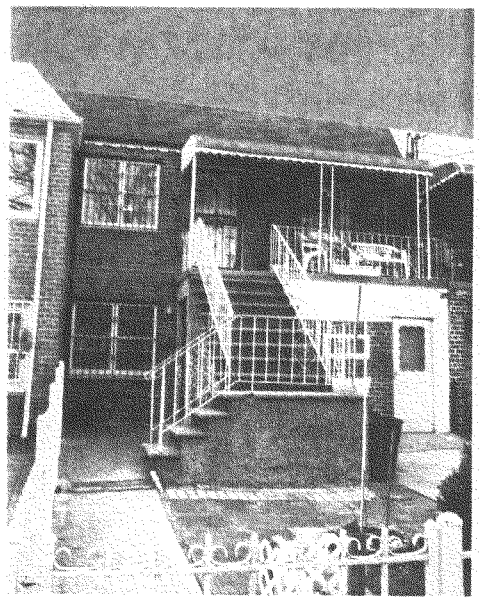
Conclusion: Where Do We Go From Here?

We all have a responsibility to urge local governments to participate in the Census Bureau's LUCA program. In New York, several organizations including the New York State Data Center, the New York Metropolitan Transportation Council, and the New York City Department of City Planning, have joined with county governments in a statewide effort to get the word out about the importance of reviewing and commenting on the address list. Our intent is to get everyone ready, so that they can receive and comment on the address list this Fall. Using local resources, we are showing localities how to assemble their lists for comparison with the Census Bureau's address list. I wish I could say that there are many other places that are attempting to start now. The truth is that for most jurisdictions, LUCA is barely on the radar screen, in real work terms. **Therefore, we urge Congress**

to encourage the Census Bureau to start technical training earlier, so that local governments have a reasonable chance of responding in the LUCA program.

Even with the LUCA program, however, the use of exact addresses in the MAF to deliver census forms is problematic for some areas of the nation. **Congress should encourage the Census Bureau to identify and target neighborhoods with a preponderance of non-traditional addressing and to count those communities using Update/Enumerate.** Moreover, Congress must support the funding required to conduct these operations. The funding level required for an accurate count of the population should be evaluated relative to the uses to which census data are employed. In this context, the additional funds needed for Update/Enumerate are modest when compared to the importance of accurate and fair political representation and wise allocation of *trillions* of dollars in federal program funds over the course of a decade that rely on population counts.

Illustration 1



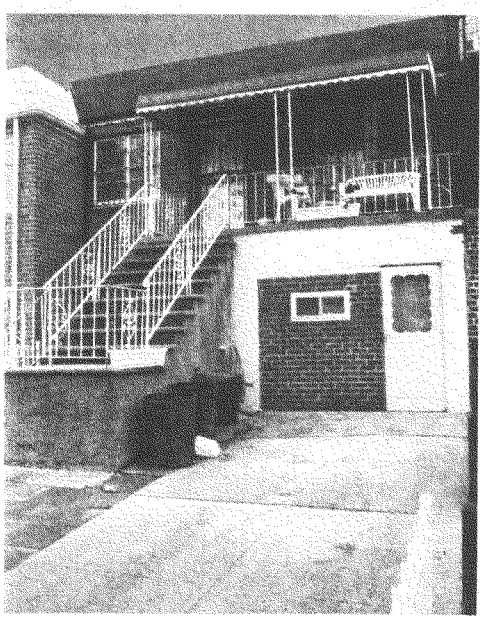
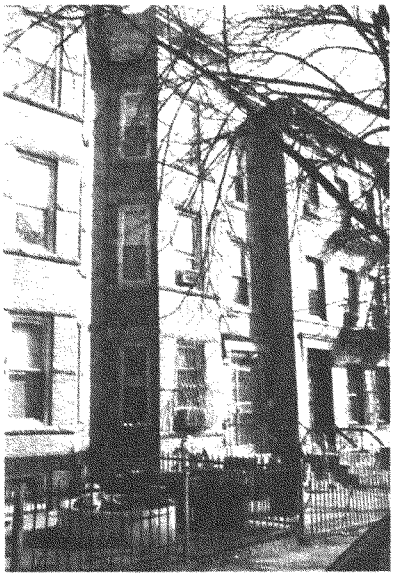


Illustration 2



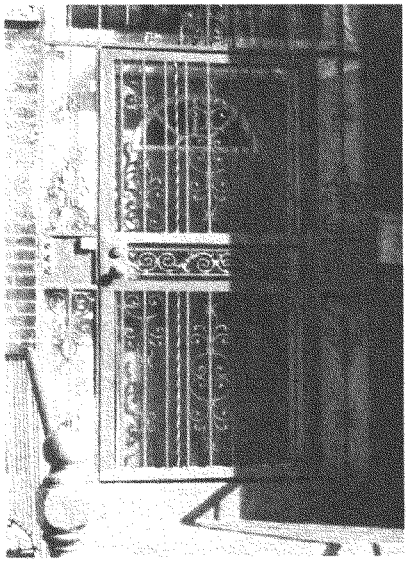
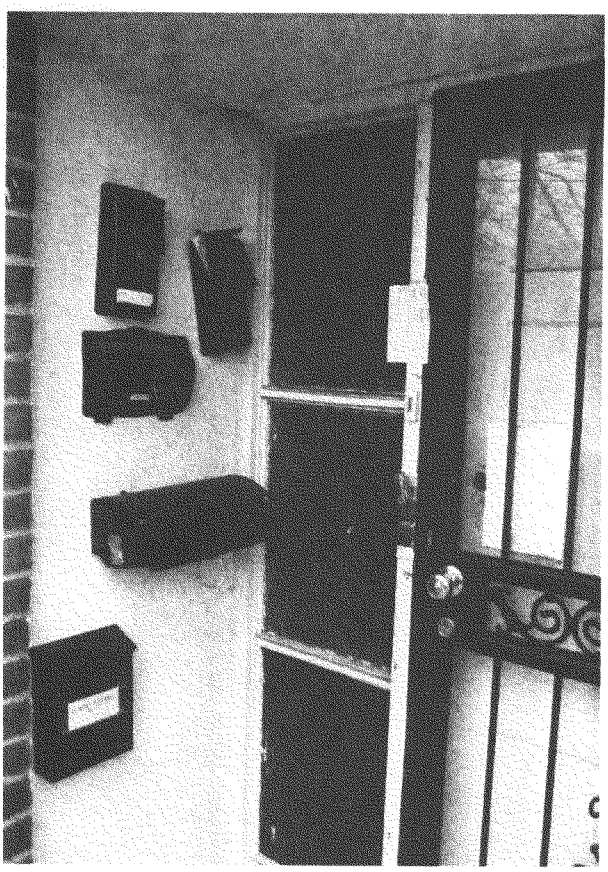


Illustration 3



Mr. CLAY. Thank you so much for that.

Ms. Narasaki, I understand you have to be excused. You may leave. Thank you so much for your testimony.

Ms. NARASAKI. Thank you.

Mr. CLAY. You are welcome.

Mr. Murray, you may proceed.

STATEMENT OF MICHAEL MURRAY

Mr. MURRAY. Good afternoon, Chairman Clay.

Mr. CLAY. Hello.

Mr. MURRAY. I am pleased to have the opportunity to discuss the role of Harris Corp. in supporting the Census Bureau in ensuring the success of the 2010 decennial census.

As vice president of programs for Harris Corp., I am responsible for the successful execution of the MAF/TIGER program, which integrates topological data and the field data collection automation program [FDCA].

Harris is proud that both program teams are performing extremely well in support of the Census Bureau's decennial count. Our overall progress to date gives me confidence that the 2010 decennial census will be the most accurate, most complete, most cost-effective, and most secure census ever.

The field data collection program was awarded to Harris Corp. in April 2006. In partnership with the Census Bureau, we have, in our opinion, made tremendous progress. Program performance is on plan. The FDCA program provides the automation support, including hardware, applications, and infrastructure necessary for the Census Bureau to collect high-quality data in an efficient and cost-effective manner for the 2010 decennial census. Harris has developed an architecture for FDCA that is low risk, modular, flexible, scalable, and utilizes proven technologies and commercial off-the-shelf products to the maximum extent possible.

The program architecture integrates wireless technology, GPS, and information technology in order to provide a highly available support structure to census field operations. It maintains data integrity, accuracy, and security.

Multiple overlapping security measures are provided for IT and telecommunications throughout the FDCA enterprise to protect title 13 data. Some specific security features include fingerprint authentication, password authentication, automatic data encryption during storage, encrypted data transmission over a private network, firewalls, virus protection, and a kiosk feature that limits the device for only FDCA use.

Harris has successfully completed the design, development, and formal test and implementation effort for dress rehearsal address canvassing operations as planned. We have deployed the office equipment and application software necessary to support next month's dress rehearsal address canvassing operations. Harris has deployed nearly 1,400 handheld computers and established the FDCA infrastructure, which includes a help desk, a network operations center, a security operations center. This system supports operational activities at Stockton and Fayetteville local census offices and the Charlotte and Seattle regional census centers.

We have initiated the engineering efforts associated with the next two significant dress rehearsal operations, automating paper-based operations and non-response followup.

I would like to thank the members of this committee for the invitation to testify. Harris Corp. appreciates the opportunity to share with you the successful completion of key FDCA milestones and our plans for moving forward to ensure the 2010 decennial census is the most comprehensive, most accurate, most cost effective, and most secure census ever.

I look forward to answering any questions you might have, and I would like to note at the end of the hearing and with the agreement of the chairman we will provide a demonstration of key attributes and functionality of the handheld computer for those interested.

Thank you.

[The prepared statement of Mr. Murray follows:]

Testimony before the Subcommittee on Information Policy, Census and National Archives
Committee on Oversight and Government Reform
U.S. House of Representatives
April 24, 2007

Chairman Clay, Congressman Turner and members of this distinguished subcommittee, my name is Michael Murray, and I am pleased to have the opportunity to discuss the role of the Harris Corporation in supporting the Census Bureau and ensuring the success of the 2010 decennial census. As the Vice President of Census Programs for Harris Corporation, I am responsible for the successful execution of the FDCA and MAF/TIGER programs. The Harris Corporation is proud that both program teams are performing extremely well in support of the Census Bureau's decennial count and we have every expectation that with the products and servicing we are providing, the 2010 Decennial Census will be the most accurate, most complete, and secure census ever.

The Census Bureau has initiated four acquisition programs to update and automate the decennial census process. The Bureau has awarded contracts to Harris for two of the four programs: 1) Master Address File/Topologically Integrated Geographic Encoding and Referencing Accuracy Improvement project (MAF/TIGER) and 2) the Field Data Collection Automation project (FDCA).

MAF/TIGER Program

Although the primary purpose of this hearing is to discuss automation and the handheld data collection system for the enumerators, MAF/TIGER is an integral step towards automating the Decennial Census. The TIGER portion of the project is a digital database that identifies the type, location and name of streets, rivers, railroads and other geographic features, and geospatially defines their relationships to each other and to numerous other entities. Essentially, MAF/TIGER provides a digital road map network utilized by the Census enumerators.

Harris was awarded MAF/TIGER in June 2002. Since that time, Harris has successfully supported the Census Bureau in updating the digital mapping data utilizing GPS-location capabilities and automation tools. To date, Harris has mapped 2,399 counties and is on-track to map an additional 638 counties into that database by 2008, in support of the Decennial Census. Harris has consistently delivered products and services ahead of scheduled milestones and under project cost. Harris' performance has enabled the Census Bureau to accelerate the project schedule and reduce the risk associated with not completely updating databases in time for the Decennial Census. An accurate physical description of the roads network is critical to ensuring a complete and accurate Census in 2010 and will significantly reduce the multi-billion dollar costs of collecting decennial census information. A derivative of these mapping products is used in the hand held devices that the enumerators will utilize to obtain data from non-responders. As a result of outstanding program performance, Harris Corporation has received very positive feedback from the Census Bureau.

The MAF/TIGER program creates an excellent foundation that the Field Data Collection Automation program can leverage.

FDCA Program

The Field Data Collection Automation (FDCA) program was awarded to Harris Corporation in April 2006. In partnership with the Census Bureau we have, in our opinion, made tremendous progress in achieving the goals of employing technology for greater accuracy, higher level of data security, and more efficient operational costs.

Since the contract was awarded, we have formed a highly-skilled team that is focused on successfully supporting the Census Bureau's 2010 Decennial Census mission. Earlier this month we delivered a secure, robust, and reliable system to the Census Bureau in support of this spring's Dress Rehearsal Address Canvassing (DR AC) operation.

Over the course of the past year, the FDCA team has:

- Completed the Dress Rehearsal Address Canvassing software development effort
- Completed the FDCA interface design / development to external Census systems, such as the Decennial Applicant, Personnel & Payroll System (DAPPS), Commerce Business Systems (CBS), Cost & Progress (C&P), and Master Address File / Topologically Integrated Geographic Encoding & Referencing System (MAF/TIGER).
- Designed / developed a Data Processing Center (DPC)
- Deployed a Network Operations Center (NOC)
- Deployed a Security Operations Center (SOC)
- Completed instantiation of a FDCA private communication network
- Implemented a FDCA Help Desk
- Established a comprehensive Asset Management system
- Completed the automation infrastructure of the Stockton and Fayetteville Local Census Offices (LCOs)
- Completed the automation infrastructure of the Charlotte and Seattle Regional Census Centers (RCOs)
- Designed, developed, manufactured, certified, and shipped 1,388 Handheld Computers and SD Cards to the Local Census Offices
- Completed development of DR AC training material and on-line help
- Completed security certification to the new NIST-800-53 standards providing comprehensive protection of Title 13 data.

Harris has seamlessly integrated the FDCA system into the temporary field infrastructure and business processes. Just two weeks ago, for example, the Bureau activated a feature that allows its employees to complete time and attendance forms through the hand held computers. The completion of the above items has positioned the Census Bureau to start Dress Rehearsal Address Canvassing operations on schedule. The Bureau is currently utilizing the system during training in preparation for a May 2007 operational start date. To date, the FDCA system has performed very well with no significant anomalies.

The Census Bureau approved a system architecture for FDCA that is low-risk, modular, flexible, and scalable and utilizes proven technologies and commercial off-the-shelf (COTS) products to the maximum extent. The program architecture integrates wireless technology, GPS and information technology in order to provide a highly available support structure to the Census field operations. It maintains data integrity, accuracy, and security. The architecture is comprised of the following six major segments:

- **Mobile Computing Environment (MCE):** The Mobile Computing Environment (MCE) is comprised of Hand Held Computers (HHCs), laptops and the Mobile Services. The HHCs are

used by the Enumerators, Crew Leaders, and Field Operations Supervisors (FOSs) for key data collection operations. The laptops are used by the Field Operations Supervisors.

- **Office Computing Environment (OCE):** The Office Computing Environment is comprised of the office equipment (workstations, LANs, printers, etc.) that are provided at the LCOs and RCCs for Census personnel operational use, along with the server and storage equipment that is located at the Data Processing Centers.

- **Telecommunications:** Telecommunications provides the Wide Area Network (WAN) communication capabilities between the FDCA facilities and external Census systems. It also includes the cellular and dialup networks that are used to retrieve and disseminate information to the field operations personnel via the HHCs and Laptops.

- **Facilities:** Facilities are comprised of the Data Processing Centers and supporting hardware infrastructure (power, cooling, security, etc.) that support the centralized server application processing, along with the Harris Program Office Facility, and Provisioning centers. The Provisioning centers will support the kitting and dissemination of equipment to the field offices.

- **Support:** The framework of RCCs, Puerto Rico Area Office (PRAO), LCOs, and mobile field staff is supported by a Harris Team infrastructure that includes redundant Data Processing Centers, a network operation center (NOC), a security operation center (SOC) and Help Desk, as well as Provisioning Centers to support kitting, testing, deployment, installation and rekitting. This architecture provides highly available IT support, while maintaining data integrity, accuracy and security through the use of proven, highly reliable hardware and COTS products that are modular and scalable.

- **Security:** Security is integrated throughout all areas and forms an umbrella to encompass the entire FDCA system. Security is pervasive throughout the entire architecture and provides in-depth protection for Title 13 and other sensitive data.

The Harris Team's solution provides automation that enhances the efficient and effective management of the field data collection effort, while ensuring high standards of data quality, validity, and security. FDCA provides an MCE that automates the conduct and management of administrative and supervisory activities of key Census field operations. The MCE provides the systems, applications, and infrastructure necessary to interface mobile field staff systems with the Census Bureau and other external systems. The OCE automates office management and administrative activities to facilitate hiring, training, tasking, control, and monitoring of the field workforce and provides an interface to the Census Bureau and other external systems. The telecommunications capability provides secure, high-reliability communications between fixed and mobile elements of the Census field enterprise. Multiple and overlapping security measures are provided for IT and telecommunications throughout the enterprise to protect Title 13 data.

To support the Decennial Census, the Harris Team will install the automation infrastructure for Regional Census Centers (RCCs) and the Puerto Rico Area Office (PRAO), as well as Local Census Offices (LCOs), which will support approximately office staff, who will monitor, manage, and control mobile field staff. This framework of RCCs, PRAO, LCOs, and mobile field staff are supported by a Harris Team infrastructure that includes redundant Data Processing Centers, NOC, SOC and Help Desk, as well as Provisioning Centers to support kitting, testing, deployment, installation and replacing equipment. This architecture provides highly available IT support while maintaining data integrity, accuracy and security through the use of proven, highly reliable hardware and COTS products that are modular and scalable.

Architectural Details

In order to specifically address the Committee's questions regarding the Mobile Computing Environment, including the Hand Held Computer and security, a more detailed discussion follows.

Mobile Computing Environment

The FDCA Mobile Computing Environment (MCE) provides the equipment and applications for field staff to conduct and manage key field data collection. The MCE segments include the Hand Held Computer (HHC), the MCE Laptop, and the Mobile Server. Identical HHCs are provided to all Crew Leaders, Crew Leader Assistants, Enumerators and the Field Operations Supervisors (FOSs). In addition, the FOS is supplied with a laptop, based on their need to display reports that are larger than is practical for the small HHC screen. The MCE equipment is used for entering collected response, address, and map data, as well as for entering hours worked, mileage, expenses and text messages. Communication of assignments and the collection and transmission of field data occur at least daily to and from the Data Processing Centers. By providing an intuitive, reliable Mobile Computing Environment (equipment, applications, and transmission infrastructure) for field staff to collect and transmit data daily, the Harris Team has solidly addressed one of the critical success factors for the Decennial Census.

The MCE design features an easy-to-use HHC and a reliable COTS data transmission application between the HHCs and the Data Processing Centers. Data transmissions are initiated automatically, with no action required by the enumerator when in cellular coverage. For areas without cellular coverage, field staff (an estimated 20 percent based on population, not geographic area) will use dialup connectivity. Each HHC contains modems to support both cellular and dialup connectivity. All communications between Data Processing Centers and the HHCs and laptops is encrypted to protect and prevent the transmission of Title 13 data using FIPS 140-2-certified encryption technology.

Once assignments and map data are received on the HHC, field personnel do not require connectivity to perform field data collection. Subsequently, connectivity is again required to upload collected data and time and expense data, as well as to download assignment updates and text messages. The Mobile Server at the Data Processing Centers manages data synchronization with the HHCs, responding to requests for synchronization from the HHCs by uploading all data identified as ready for upload on the HHC. After acknowledging data receipt, the Mobile Server downloads data identified as ready for that HHC.

The MCE Laptop is used to access FDCA applications available through the FDCA Portal and are hosted at the Data Processing Centers. This includes reports to monitor status of all crews assigned to the FOS.

The Harris Team MCE hardware design is based on mature, proven technology, resulting in a very reliable, low-risk solution that supports highly productive field operations. MCE hardware consists of the HHCs, laptops and the Mobile Server. The HHC is a fully integrated unit that does not require any swapping of components to satisfy its mission. The MCE Laptop is a standard product and is identical to the laptops being provided in Census offices. The Mobile Server, which is located in the Data Processing Centers, is a robust COTS-based hardware solution that hosts standard COTS Mobile Services applications. In addition, the MCE can improve field force management as near real-time data is available, and enumerators can be quickly reassigned upon receipt of late mail returns resulting in improved operational efficiencies.

Hand Held Computers

HHCs are issued to Crew Leaders, Enumerators, and FOSs to perform and manage FDCA field operations, such as Address Canvassing, Non-Response Follow-up, and Census Coverage Measurement Person Interview. The HHCs facilitate distribution of assignment management information and communications to field staff and provide automated methods to collect response data, assignment progress status, and time and expense information during census operations.

The HHC is a fully integrated solution of hardware and software that includes a base processor unit, a display, GPS receiver, fingerprint sensor, cellular data modem, and a dialup modem. The HHC is light-weight, easy to use and will operate up to 8 hours on a single battery charge, with an additional two hours in stand-by mode. All external receptacles have covers for protection to allow the HHCs to operate in outdoor field conditions, including light rain, cold weather, and direct sunlight.

Harris has established a Strategic Alliance with High Tech Computer Corp. (HTC) to provide the Census Bureau with HHC devices for the Dress Rehearsal and Decennial Census. HTC is a world leader in the manufacturer of all commercial smart phones/PDAs currently being built. The Harris Team has delivered 1388 FDCA-specific HHCs based on the Census requirements with features that were successfully demonstrated in the FDCA prototype and improved upon since the Census Bureau field tests.

The HHC's removable memory card is used for storage of FDCA map files, authentication information, training data, and all collected response information along with time and expense data. In the event that an HHC fails, the memory card can be transferred to a replacement HHC to recover collected response data. All collected response data is encrypted on the memory card. The enumerator can then immediately resume their work, because the memory card already contains all assignment data and authentication information.

The Harris Team conducted a trade study to evaluate different methods of user authentication on mobile devices. Several different options were considered, including signature, fingerprint and secure ID token authentication. From the results of the trade study, we determined that fingerprint authentication is most appropriate for the production HHCs and laptops because this method is less susceptible to human error, is secure, accurate, simple to use and cost effective.

The Harris Team HHC design features a fully integrated fingerprint sensor built into the HHCs to provide user authentication, using AuthenTec fingerprint sensor technology. This proven technology is accurate, consumes low power, and minimizes the HHC processor load, resulting in faster matching. AuthenTec's unique, patented TruePrint technology uses small RF signals to detect the fingerprint ridge and valley pattern. The RF electronic imaging mechanism works by reading the fingerprint pattern from the live, highly-conductive layer of skin that lies just beneath the skin's dry outer surface layer. AuthenTec's sensors are less affected by common skin surface conditions, such as dry, calloused or dirty skin, which can impair the ability of other sensors to acquire accurate fingerprint images. The Harris Team has extensive experience in fingerprint collection, matching and storage.

The Harris Team HHC design incorporates numerous security features to protect Title 13 data and to secure the device against unauthorized access. These include antivirus, authentication, encryption, intrusion detection, kiosk mode, running process restriction, splash page, and session timeout. Antivirus software will be installed on each HHC to detect and remove a pre-defined set of known viruses. Periodic updates of the virus definitions will be automatically uploaded to all HHCs from the DPC as new viruses are identified. A fingerprint sensor and matching software will be implemented on the HHC to provide for authentication. Encryption will be implemented to protect the data stored on the HHC database and to protect the data during transmission between the HHC and the DPC. Intrusion detection functions will monitor key Windows OS register

settings and detect any changes. The Kiosk mode function will limit HHC boot up such that it will only run FDCA applications and screens. Users will not be able to escape out of, terminate, or stop HHC applications or processes. Consequently, no use, other than FDCA, will be possible.

HHC security also features a custom process monitor that restricts process execution. This monitor will automatically and immediately terminate any unauthorized process that begins to execute on the HHC. The session timeout function turns off the screen after a configurable time period of no activity to prevent unauthorized viewing of screen data by others. The splash page is another function designed to discourage unauthorized access attempts and make the HHC undesirable by the general public. When the HHC is powered on, the only screen that is shown is the login screen, with text that indicates that the HHC is the property of the U.S. Government and is only to be used by authorized Census Bureau personnel.

During the 2006 test, the HHC users experienced many difficulties with the mapping applications on the device. The mapping features were extremely slow which led to a significant amount of user frustration and dissatisfaction. In addition, the mapping application took a significant amount of memory space which caused another set of issues when the available memory was depleted.

The Harris Team solved these problems by developing a custom, streamlined data format for the underlying mapping information. Not only does this format significantly reduce the amount of memory needed, map processing is now extremely responsive. Users can easily zoom in or out to see the map at different scales and can quickly pan to see different locations on the map. The mapping features are completely integrated into the Census operation, such as Address Canvassing. For example, the HHC will automatically display the map during address collection (centered on the user's current location as determined by GPS coordinates) and return to the address collection screens after collecting the mapping information. The user interface for mapping has been customized to make it simple to use and consistent with other applications on the HHC. Significant usability testing has been done on the HHC mapping applications which have resulted in improved color choices and a very simple user interfaces. The Harris Team HHC mapping applications will be much simpler to use which will result in increased user satisfaction and more accurate data collection.

Laptops

Laptops are provided to FOSs in addition to an HHC to facilitate ready access to high volumes of personnel and map data. The larger display and increased processing power provided by a laptop enables the FOS to review and approve time and expense information, monitor productivity of assigned crews, support Crew Leaders in managing field collection activities, perform administrative activities to manage assigned crews, and display larger maps with more location points.

The laptop is a standard, proven Dell product and is identical to the laptops being provided in the RCCs, PRAO and LCOs. Each laptop is equipped with security features, including full disk encryption, to prevent unauthorized access to Title 13 data. A fingerprint sensor will be used for authentication. The laptop is unusable to any unauthorized user. Potential vulnerabilities from accessing the Internet are minimized via firewalls.

Servers

The Mobile Server performs the synchronization of data on each HHC with the centralized Mobile Database in the Data Processing Center, ensuring that all data is reliably and securely transferred. The Mobile Services applications reside on multiple Mobile Servers deployed at each Data Processing Center, with sufficient processing capacity to provide excellent synchronization response, even during peak operational loads. The path the data takes to the HHCs is through the cellular or dial-up network, FDCA Multi Protocol Level Switching (MPLS), Cisco switch, and onto the LAN at the Data Processing Center. Load balancing capabilities are provided between

multiple Mobile Servers such that connection requests are distributed equitably across the servers to optimize performance, resulting in minimal transfer delay time.

The Harris Team MCE solution provides intuitive, reliable operational functionality that enables field staff to conduct their work assignments for each of the census operations. Reliable, easy to use, proven COTS products will be used for the equipment, software and transmission infrastructure to ensure success for the Decennial Census. Security is embedded in all aspect of the MCE solution to ensure that Title 13 data is protected at all times, either on a mobile device or during transmission to the Data Processing Center.

Security of Census Data and Personal Information

Security of collected data has been a paramount concern of the Bureau – and of the Harris Team – throughout the design and implementation of the Handheld Computers, Laptop Computers, and the transmission of data throughout the program. Hence, the key objectives for FDCA security are:

- Overall protection of Title 13 data
- Physical security protection for all FDCA support facilities
- Protection of data during transmission throughout the FDCA network
- Protection of data from unauthorized access and modification
- Certification and Accreditation

The FDCA system has multiple security features to assure the protection of personal information. Physical security controls are implemented at all FDCA support facilities. Mobile computing is fully protected from compromise of Title 13 data. Office computing access controls provide data confidentiality and integrity. Data encryption is used throughout the FDCA telecommunications network. The data processing environment has comprehensive protection and monitoring with a security operations center for intrusion detection and denial of service attacks. And finally, authority to operate the FDCA system for Dress Rehearsal Address Canvassing operations was granted after thorough testing and evaluation against the Government's current stringent information security requirements (NIST 800-53A).

Specific security features include:

- Fingerprint authentication
- Password authentication
- Role-based access
- Automatic data encryption during storage
- Encrypted data transmission over private network
- Sensitive data marked for removal after transmittal
- Software has a kiosk feature that limits the device for FDCA use only
- CD/Floppy/USB drives write capability disabled
- Lockout after period of inactivity
- Logging/verification of data accessed from database
- Firewalls
- Virus protection
- User account management
- Vulnerability assessments
- Security event monitoring
- Physical security at office locations
- Continuity of operations plans

Project Execution / Future Plans

Address Canvassing is conducted to ensure the accuracy and completeness of the Census Bureau address file and spatial database used to deliver questionnaires and conduct subsequent data collection operations. Address Canvassing involves field verification and correction of addresses for all living quarters and street features.

To conduct Address Canvassing, the LCOs will recruit field staff and form crews which are then managed by the Crew Leaders and FOSs. HHCs will be used by Listers and Crew Leaders to manage assignments, report/approve time and expenses and collect all address coverage improvement information. The Listers will use the HHCs to verify existing living quarters, add new living quarters missing from the address list, and delete from the address list living quarters that do not exist on the ground. Latitude and longitude coordinates for every structure containing one or more living quarters will also be captured.

Harris has successfully completed the design, development, and implementation effort for the Dress Rehearsal Address Canvassing operations as planned. We have deployed the office equipment and application software necessary to support Dress Rehearsal Address Canvassing. Harris has also deployed 1,388 Hand Held Computers and established the infrastructure (*i.e.*, Help Desk, Network Operations Center, Security Operations Center) to support operational activities at the Stockton and Fayetteville Local Census Offices, and the Charlotte and Seattle Regional Census Centers.

Harris has initiated engineering efforts associated with the next several dress rehearsal operations, Group Quarters Validation, Census Coverage Measurement-Independent Listing, Other Paper-Based Operations, and Non-Response Follow-Up.

Concluding Remarks

I would like to thank the members of the subcommittee for the invitation to testify. Harris Corporation appreciates the opportunity to share with you the successful completion of key FDCA milestones and our plan for moving forward to ensure that the 2010 decennial census is the most comprehensive, accurate and secure census ever. I look forward to answering any questions you might have and I'd like to note that at the conclusion of the hearing, and with the agreement of the Chairman, we will provide a demonstration of the key attributes and functionality of the hand held computers for those interested.

Mr. CLAY. Thank you very much for your testimony.

Let me start with Mayor Bowser.

Mr. Mayor, State governments have been invited to participate in the LUCA program during the 2008 census dress rehearsal. This requires that they obtain information from local jurisdictions. It has come to the subcommittee's attention that some local jurisdictions are reluctant to share the information for fear that it might be shared with third parties other than the Census Bureau. What specific actions or programs has the U.S. Conference of Mayors instituted to work with Members and State officials to ensure that information gathered for the dress rehearsal is not shared with any agency other than the Census Bureau?

Mr. BOWSER. Well, I know within our own community we only assign two people to handle the census, and one works with the county because we are trying to put together a bigger program than just the local effort.

The U.S. Conference of Mayors is getting ready to have some training sessions to make sure that the information is not shared beyond what is necessary for the Census Bureau.

I think that is the best I can say about that.

Mr. CLAY. So the Conference of Mayors, the U.S. Conference of Mayors does have a plan to facilitate the local programs with the Bureau?

Mr. BOWSER. Yes.

Mr. CLAY. OK. Thank you for that response.

Dr. Prewitt, let me begin by thanking you for your service to the Nation as Director of the Census from 1998 until 2001. Much of the success of the 2000 decennial census can be directly attributed to your leadership and dedication.

I also want to thank you for acknowledging the diligence and commitment of the Bureau's staff. You are right in your assessment that some Members are not aware of how difficult a task we have assigned to the Bureau. Their task is made all the more difficult when Congress does not provide sufficient resources for planning and implementation of the decennial census. Again, thank you for making that point.

I also appreciate your providing your professional opinion on how the subcommittee can best approach oversight of the census.

What do you believe were the most notable successes of the 2000 census? And in your response I would like for you to address the role partnerships might have played in achieving your goals at the time.

Mr. PREWITT. Thank you very much for your kind comments, Mr. Chairman.

With respect to specifically the partnership program, I traveled a great deal. I felt that the Director of the Census had a kind of a role somewhere between a preacher and a cheerleader, to try to explain, but also to celebrate, if you will, the census. I must have visited in the neighborhood of 200 different events that were organized by the partnership program. They all had the same characteristic. There was just a community excitement and an understanding of this responsibility.

I won't detail this, but, for example, I remember in San Antonio the oldest Catholic church in the country, as a matter of fact, dedi-

cated a whole mass just to the census, because they felt so strongly about the importance of reaching out to the undocumented in that area and used the church to make that message.

Chambers of commerce, corporations all over the country. So insofar as the census becomes a kind of a government responsibility that is owned by the people, that happened through the partnership program.

It is very difficult to document the exact payoff in the response rate; however, I was, at the end of the census, very pleased to recognize the GAO, itself, recognized that the partnership program had made a difference in the mail-back response rate, which saves money. More important than that, it engaged the American people in this very important civic responsibility.

Mr. CLAY. So the key is actually to involve communities and involve Americans in the census and make them feel a part of the census, and I guess explain to them, through the advertising, that this is essential to us building this country.

Mr. PREWITT. I think, if I could continue for a second, Mr. Chairman, you appreciate, of course, in 2000 there was a partisan battle about the census. It was intense, and it sort of crippled some of the things we would have liked to have done. I will just give you one example. It would be marvelous in 2010 if on April 1st the U.S. Congress stops collectively its business and all of them sit there and fill out their form on television to say to the American people this is what this is all about. So those kinds of things would create a fundamentally different, I think, mind set, if you will, about what a census can be.

Mr. CLAY. And you also talked about how this committee needs to use the oversight function through different stages of the census, the lead up to the dress rehearsal, actually in that period between 2008 and 2010, and to troubleshoot, actually, and to make sure that everything is prepared to go for that April 1st date. I mean, you stressed it in your testimony.

Mr. PREWITT. Yes.

Mr. CLAY. I guess you can't say it often enough to us to actually use the oversight function.

Mr. PREWITT. Of course, on behalf of the American people, you are the responsible agency to make sure that there is a good census. And I think don't underestimate the extent to which hearings operate as a discipline on the Bureau, making sure they have their act together, they have their answers in place. Even though it sounds sometimes rote, I can tell you back at the Bureau when we get ready for hearings we take it very, very seriously. So there is a real responsibility that the Congress can exercise.

Mr. CLAY. Thank you so much for that response.

Dr. Salvo, in response to you raising the issue of non-traditional housing patterns, particularly multi-unit dwellings, what specific challenges do you believe the Bureau will face with respect to these units during the 2008 dress rehearsal, and what adjustments would you recommend they make to the current plan to address these challenges?

Mr. SALVO. Well, ideally it would be great if the Census Bureau tested this procedure that I have outlined called update enumerate where, in effect, blocks in the test area are identified as having ad-

dresses that, frankly, cannot be mailed to, and instead enumerators are sent out to conduct the enumeration in person, to knock on doors, fix the list, and conduct the enumeration.

Again, we are dealing with a short form only census. Penetration of these households in small, medium, and large cities—and I should say that. What I am talking about exists in many places—can only occur if the local people, people who are hired locally by the Bureau, go out and pound the pavement and knock on those doors and enumerate people contained within those housing units.

Mr. CLAY. OK. You raise a good point.

Now let me go to Mr. Murray. Will your handheld devices address the issue that he raised about five different mailboxes being in one what was initially a single family home. I mean, he supplied us with photos of a single family house that was converted into a three-unit house that had five mailboxes. How would your handheld address that?

Mr. MURRAY. Yes, it will. It has the capability to, as they are address canvassing that particular street or area or where you are seeing the multiple mailboxes, the enumerator will be standing at the base of the mailbox. It will have the addresses that are currently on record in the device. It also has the capability to go and add new addresses for the additional mailboxes that have been identified.

Mr. CLAY. I see. The subcommittee has learned that there are concerns about the time line of training, the training time line. What is the status of the project, Mr. Murray? Are you all on schedule and on budget?

Mr. MURRAY. We are currently on schedule and, as I mentioned, we have deployed the FDCA system to support the dress rehearsal, address canvassing operations in Stockton and Fayetteville, and it is ready for operations. We have a field force out there right now. We have IT technicians supporting the Bureau and, again, are ready to support those operations.

With respect to the budget, we are on plan. With respect to the overall program, there are challenges in fiscal year 2007 that we are addressing.

Mr. CLAY. OK. And, of course, the cost for the project is $200 million, which is a substantial expense. Is the program adaptable for future use?

Mr. MURRAY. For the MAF/TIGER program it is $200 million. For FDCA it is $600 million. For MAF/TIGER, there is a marriage between MAF/TIGER and FDCA that can occur. MAF/TIGER basically does the base road network, and FDCA has the capability to add additional roads. The advantage of MAF/TIGER is MAF/TIGER in the long run will be able to add roads on a larger scale. FDCA will add roads as the enumerators are literally address canvassing the streets. The handheld device that we have built has the capability of adding roads real time while the enumerators are out on the street on those roads using the GPS technology.

Mr. CLAY. I see. Thank you for that response.

Let me ask Mayor Bowser, I assume you were the mayor of East Orange during the 2000 census?

Mr. BOWSER. Just after.

Mr. CLAY. Just after. OK. So you did not experience, or did you have——

Mr. BOWSER. I did participate briefly, because I was the director of public works in the city at the time that the preparation was getting ready for the 2000 census, and we did have a lot of preparation.

What I failed to mention before when you asked about the U.S. Conference of Mayors, what they are doing, at the winter conference right here in D.C. the Census Bureau had a booth at our conference there, and at the June conference, which will be in California in Los Angeles, there will be workshops that will be taking place about the census in preparation for that coming up.

Mr. CLAY. So you think the partnership is essential?

Mr. BOWSER. It is necessary in a community like mine where we are in the categories of 50,000 to 100,000 people. We are the highest percentage of people of color, so when folks show up don't look like most of the people in the city, they get very scared. So you need to partnership to go and take some of the canvassers around and do whatever you have to do to make sure the church members are getting involved, the young people are getting involved. That is what we are prepared to do.

Mr. CLAY. And when you don't do that, that is when the undercounts occur.

Mr. BOWSER. Exactly.

Mr. CLAY. Thank you for that response.

Mr. Prewitt, as you know, there is concern about Director Kincannon's resignation and the impact that it might have on the implementation of the 2010 census. You have served as Director of the Bureau and are fully knowledgeable of the type of leadership that is required of the head of the agency. Would you like to share any thoughts concerning the skills set the next Director should possess? Have you thrown your hat into the ring? Please feel free to comment on it.

Mr. PREWITT. On the latter part of your question, sir, I felt very strongly when I was Director and after I left—and I put that in the record many times—that the Census Bureau Director should be a 5-year term appointment, not one that is coterminous with the Presidential change in leadership, for all the right reasons, without going through that. I was quite saddened by the fact that my resignation was accepted at about 12:02 on January 20, 2000. As soon as President Bush said I do it was the end of my tenure.

I would be deeply complimented if the White House were to approach me about being the Census Bureau Director now, and I say that very seriously because I think it would be a signal that we do not think the Census Bureau directorship is a partisan appointment, that it is beyond and above. It is like the National Science Foundation, the head of NASA. It is a scientific job fundamentally, not a political job. I haven't thrown my hat in the ring because I didn't think it would do any good, but I think it would be a very strong signal to the country that we see the census as outside of the political process, starting a political process, but it, itself, is outside the political process.

So I think the most important criteria is someone that not only has the technical capacity and the managerial capacity, of course,

to manage something that is complicated, and so forth, but also knows what the census stands for in the history of this country.

Mr. CLAY. While you were Director, did you ever offer up or encourage anyone in this body to offer and propose that we come up with a 5-year term? It is quite an intriguing concept that makes a lot of sense, especially with what we are going through now.

Mr. PREWITT. I believe that Congresswoman Maloney at one time, indeed, framed some legislation on exactly that issue for sort of a seven into two cycle so you overlap the decennial, and it is too bad that legislation hasn't moved forward.

Mr. CLAY. Thank you for that.

Dr. Salvo, any comments on Mr. Prewitt's response as far as a new Director for the Census? Do you have any ideas about that?

Mr. SALVO. Well, I certainly agree that statistical demographic competency should be very, very high on the list of any candidate. Essentially, the head of the Census Bureau is given a job that requires an understanding of the science as the foundation for the decennial census and for the American Community Survey and all the programs at the Census Bureau. I would second Mr. Prewitt's kind of affirmation of the importance of getting someone in who really understands the science and how those things work.

Mr. CLAY. Thank you for that.

The subcommittee has learned that there are concerns about the time line for LUCA training and the review and comment period. In your opinion, should the time line be revised? And if so, how?

Mr. SALVO. The time line needs to be revised. The Census Bureau is in the field now doing what is called promotional LUCA training, which amounts to getting people interested in the program, getting them to come forward and agree to participate.

When I go out with the Census Bureau—and I have gone out—there is a lot that can be done to prepare jurisdictions from a technical standpoint. For example, there is software that the Census Bureau has that they can begin to introduce to the jurisdictions as an incentive to participate in LUCA. That needs to be done within the next 2 months, because summer is coming up, the files will be delivered in the fall. You cannot do technical training at the same time that you deliver the files. It needs to be done several months in advance, which means June of this year would be a good time point.

Mr. CLAY. How about you, Mayor Bowser? How do you feel about the time line with LUCA?

Mr. BOWSER. Well, I think the time line seems to be a little bit too compressed. Certainly, the more preparation you have, because this is too important to really the lifeblood of the cities and to the country, so the more prepared you are, the more accurate the numbers are going to be, and then everybody can benefit from that.

Mr. CLAY. Thank you so much.

Mr. Murray, the handheld devices will not be field tested until next month. GAO expressed concerns that leaves little time to correct any problems with the devices before the 2008 dress rehearsal. Does Harris have a plan for addressing problems that might arise during the field test and correcting them before the dress rehearsal? Please explain.

Mr. MURRAY. I was actually very delighted to meet Mr. Scire from the GAO, because I have been reading his reports for some time from the 2004–2006 tests, so during the break I had the opportunity to actually walk through the new device, provided him a brief demo as to how we have addressed the issues that have been identified in his report. So right now the key is the handheld device is built. This is the device that will work for decennial. We will test it during dress rehearsal.

We have done some extensive testing on it so far. From a production standpoint, we have gone through what we call destructive testing on over 1,000 units, where we have done everything from shock and vibration testing, dropping them in water, seeing what they will do, what they won't do, every type of possible test. So we believe this device is solid, it is ready. The software is complete today for, again, dress rehearsal, address canvassing. It works. We have demonstrated it in our formal tests. So we are very comfortable and very confident that this device will be successful going forward.

Mr. CLAY. And, Mr. Murray, the devices have various security features. What has Harris done to ensure the reliability of these features?

Mr. MURRAY. The first thing with respect to liability, for dress rehearsal we have delivered 1,388. We did a 100 percent test of all of those units, and every one of them worked.

With respect to security, security is embedded throughout the architecture. As soon as an enumerator goes to a house, as they are entering the data, when they complete that housing data that they have entered, that data is then encrypted on the SD card that is located in the device.

Once they complete that assignment and they walk away from that house, if they are in cell range that data is automatically transmitted over a private network, secure private network, and it is encrypted, and then it is removed from the device, itself.

Mr. CLAY. The handheld devices allow canvassers to collect GPS coordinates. The accuracy rate required by the Census Bureau is 3.5 meters. Do the devices meet or exceed that requirement?

Mr. MURRAY. The devices do meet that. There are some limitations when you are in the middle in the city and your GPS is obstructed. Satellites are obstructed by tall buildings, or when you are in certain mountains there are some GPS obstructive. When you have clear shots of GPS satellites, it works flawlessly.

Mr. CLAY. OK. What happens when there are obstructions? How do you followup?

Mr. MURRAY. They will take a mark, and they are able to take a mark, and the device will remember that mark. That particular mark will not be accurate to the three meters. It will be off by a couple of meters beyond that three meters.

Mr. CLAY. And that requires a person or enumerator to followup?

Mr. MURRAY. Correct.

Mr. CLAY. OK. All right. Let me ask a final question of Mr. Bowser. I hear we have votes coming.

Mr. Mayor, the Census Bureau will have regional and local offices to provide assistance to local officials. What are your expecta-

tions of the local offices, and how can they be a resource to your members in implementing the 2010 census?

Mr. BOWSER. Well, what we did during the last census I think really worked well, because regional offices' representatives made periodic regular visits to our community, because we are sort of like in the center of the county, and we would bring some of the surrounding communities in so that we all shared the same information at the same time, so the regional offices worked very well with us.

Mr. CLAY. All right.

Let me wrap up this hearing by thanking all of you all for giving your time today, for coming here and testifying on such an important subject. I appreciate your expertise and your testimony today.

I will adjourn the hearing.

Mr. Murray, you do have permission to do a demonstration after the hearing.

Mr. MURRAY. Thank you.

Mr. CLAY. Thank you so much. Thank you all for being here.

The committee is adjourned.

[Whereupon, at 4:30 p.m., the subcommittee was adjourned.]

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