AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

THE 2010 CENSUS: AN ASSESSMENT OF THE CENSUS BUREAU'S PREPAREDNESS

HEARING

BEFORE THE

SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES

OF THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

MARCH 25, 2010

Serial No. 111–90

Printed for the use of the Committee on Oversight and Government Reform

Available via the World Wide Web: http://www.gpoaccess.gov/congress/index.html
http://www.oversight.house.gov

U.S. GOVERNMENT PRINTING OFFICE

62–943 PDF WASHINGTON : 2010

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

EDOLPHUS TOWNS, New York, *Chairman*

PAUL E. KANJORSKI, Pennsylvania
CAROLYN B. MALONEY, New York
ELIJAH E. CUMMINGS, Maryland
DENNIS J. KUCINICH, Ohio
JOHN F. TIERNEY, Massachusetts
WM. LACY CLAY, Missouri
DIANE E. WATSON, California
STEPHEN F. LYNCH, Massachusetts
JIM COOPER, Tennessee
GERALD E. CONNOLLY, Virginia
MIKE QUIGLEY, Illinois
MARCY KAPTUR, Ohio
ELEANOR HOLMES NORTON, District of Columbia
PATRICK J. KENNEDY, Rhode Island
DANNY K. DAVIS, Illinois
CHRIS VAN HOLLEN, Maryland
HENRY CUELLAR, Texas
PAUL W. HODES, New Hampshire
CHRISTOPHER S. MURPHY, Connecticut
PETER WELCH, Vermont
BILL FOSTER, Illinois
JACKIE SPEIER, California
STEVE DRIEHAUS, Ohio
JUDY CHU, California

DARRELL E. ISSA, California
DAN BURTON, Indiana
JOHN L. MICA, Florida
MARK E. SOUDER, Indiana
JOHN J. DUNCAN, JR., Tennessee
MICHAEL R. TURNER, Ohio
LYNN A. WESTMORELAND, Georgia
PATRICK T. MCHENRY, North Carolina
BRIAN P. BILBRAY, California
JIM JORDAN, Ohio
JEFF FLAKE, Arizona
JEFF FORTENBERRY, Nebraska
JASON CHAFFETZ, Utah
AARON SCHOCK, Illinois
BLAINE LUETKEMEYER, Missouri
ANH "JOSEPH" CAO, Louisiana

RON STROMAN, *Staff Director*
MICHAEL MCCARTHY, *Deputy Staff Director*
CARLA HULTBERG, *Chief Clerk*
LARRY BRADY, *Minority Staff Director*

SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES

WM. LACY CLAY, Missouri, *Chairman*

CAROLYN B. MALONEY, New York
ELEANOR HOLMES NORTON, District of Columbia
DANNY K. DAVIS, Illinois
STEVE DRIEHAUS, Ohio
HENRY CUELLAR, Texas
JUDY CHU, California

PATRICK T. MCHENRY, North Carolina
LYNN A. WESTMORELAND, Georgia
JOHN L. MICA, Florida
JASON CHAFFETZ, Utah

DARRYL PIGGEE, *Staff Director*

CONTENTS

	Page
Hearing held on March 25, 2010	1
Statement of:	
Jackson, Arnold, Associate Director, U.S. Census Bureau; Robert Goldenkoff, Director, Strategic Issues, Government Accountability Office; and Judy Gordon, Associate Deputy Inspector General, Department of Commerce	4
Goldenkoff, Robert	18
Gordon, Judy	52
Jackson, Arnold	4
Letters, statements, etc., submitted for the record by:	
Clay, Hon. Wm. Lacy, a Representative in Congress from the State of Missouri, prepared statement of	3
Goldenkoff, Robert, Director, Strategic Issues, Government Accountability Office, prepared statement of	20
Gordon, Judy, Associate Deputy Inspector General, Department of Commerce, prepared statement of	54
Jackson, Arnold, Associate Director, U.S. Census Bureau, prepared statement of	7

THE 2010 CENSUS: AN ASSESSMENT OF THE CENSUS BUREAU'S PREPAREDNESS

THURSDAY, MARCH 25, 2010

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 2:10 p.m., in room 2154, Rayburn House Office Building, Hon. Wm. Lacy Clay (chairman of the subcommittee) presiding.

Present: Representatives Clay, Driehaus, Cuellar, Chu, and McHenry.

Staff present: Darryl Piggee, staff director/counsel; Jean Gosa, clerk; Yvette Cravins, counsel; Anthony Clark, professional staff member; Charisma Williams, staff assistant; John Cuaderes, minority deputy staff director; and Adam Fromm, minority chief clerk and Member liaison.

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

Good afternoon and welcome to today's hearing, entitled "The 2010 Census: An Assessment of the Census Bureau's Preparedness." Today's hearing, as the title indicates, will examine the improvements the Census Bureau has made in its operations and systems leading up to the 2010 enumeration. We will further examine those specific IT systems and budget uncertainties which cause GAO to categorize the Bureau's efforts as high risk. Today's dialog should lead to more certainty and knowledge of the mitigation strategies for 2010 census challenges.

We all have one goal in mind, a true, accurate reflection of our country. I appreciate Dr. Groves' leadership and efforts.

We have with us today distinguished colleagues who will be joining us who have been asked to participate in this hearing.

Without objection, the chairman and ranking minority member will have 5 minutes to make opening statements, followed by opening statements not to exceed 3 minutes by any other Member who seeks recognition.

Without objection, Members and witnesses may have 5 legislative days to submit a written statement or extraneous material for the record.

The purpose of today's hearing is to complete the census cycle. We began this journey many hearings ago. This subcommittee has visited the compilation of the Master Address File, known as LUCA, and its intricacies. We examined the external challenges of

counting our country and the consequences of undercounts. We studied Group Quarter Validation and Complete Count Committees. We addressed fingerprinting and the hiring of Census workers. We have further assessed the advertising campaign to reach our hardest-to-count populations. So today's efforts must now focus on the Bureau itself, with an assessment of its preparedness to complete the 2010 task.

First on our panel, we will hear from Mr. Arnold Jackson, Associate Director of the Census Bureau.

Welcome.

Next, we will hear from Mr. Robert Goldenkoff, Director of Strategic Issues at the Government Accountability Office.

Thank you for being here.

And our final panelist is Ms. Judy Gordon, Associate Deputy Inspector at the Department of Commerce.

This panel is well suited to answer all questions and provide updates on the Bureau's preparedness. We look forward to their insight into this effort, and I thank all of the witnesses for appearing today and look forward to their testimony.

[The prepared statement of Hon. Wm. Lacy Clay follows:]

Opening Statement
Of
Wm. Lacy Clay, Chairman
Information Policy, Census, and National Archives
Subcommittee
Of the
Oversight and Government Reform Committee

Thursday, March 25, 2010
2154 Rayburn House Office Building
2:00 p.m.

"The 2010 Census: An Assessment of the
Census Bureau's Preparedness"

The Purpose of Today's hearing is to complete the Census cycle. We began this journey many hearings ago. This Subcommittee has visited the compilation of the Master Address File, LUCA, and its intricacies. We examined the external challenges of counting our country and the consequences of undercounts. We studied Group Quarter validation and Complete Count Committees. We addressed Fingerprinting and the Hiring of Census workers. We have further assessed the Advertising Campaign to reach our hardest to count populations. So today's efforts must now focus on the Bureau itself, with an Assessment of its Preparedness to complete the 2010 task.

First on our panel, we will hear from Mr. Arnold Jackson, Associate Director of the Census Bureau.

Next, we will hear from Mr. Robert Goldenkoff, Director of Strategic Issues at Government Accountability. Our final panelist is Ms. Judy Gordon, Associate Deputy Inspector at the Department of Commerce.

This panel is well suited to answer all questions and provide updates on the Bureau's preparedness. We look forward to their insight into this effort. I thank all of the witnesses for appearing today and look forward to their testimonies.

Mr. CLAY. At this time, I will now yield to any Member who has an opening statement.

Ms. Chu, would you have an opening? No, you're fine.

How about Mr. Cuellar? Would you have a—no.

All right. Then we will take testimony now.

Mr. Jackson, we will start with you, and—we will hear first from you, Mr. Jackson, and second from Mr. Goldenkoff and finally from Ms. Gordon.

It is the policy of this committee to swear in all witnesses before they testify.

[Witnesses sworn.]

STATEMENTS OF ARNOLD JACKSON, ASSOCIATE DIRECTOR, U.S. CENSUS BUREAU; ROBERT GOLDENKOFF, DIRECTOR, STRATEGIC ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE; AND JUDY GORDON, ASSOCIATE DEPUTY INSPECTOR GENERAL, DEPARTMENT OF COMMERCE

STATEMENT OF ARNOLD JACKSON

Mr. JACKSON. Thank you, Chairman Clay, Ranking Member McHenry, members of the subcommittee, for this opportunity to provide an operational update, including the status of the Paper-Based Operations Control System of the 2010 decennial census.

Mr. Chairman, as you know, we are underway, the census is ongoing and proceeding, and we are on a path to a successful 2010 census. The efforts of the previous years are paying off, including the support of this subcommittee and committee, and our work with stakeholders are now paying dividends.

A complete and accurate census is a complex endeavor. However, the finely tuned strategies we have to count every person in this country are paying off. All of these efforts, from census operations to promotion, are grounded in thorough research, extensive coordination and preparation, and local knowledge.

The 2010 census enumeration actually began in Noorvik, AK, on January 25th. In this small village, which piques the interest and imagination of the country each decade, the resulting news generated interest from over 80 million people, a great introduction for the 2010 census.

We have also conducted an operation known as Group Quarters Advance Visit, which facilitates the process of counting residents in group quarters. Census workers visited more than 270,000 group quarters locations to plan for the group quarters enumeration.

We have started an enumeration of—an enumeration activity, known as Update/Leave, where we actually go to addresses where the address may not represent the actual location of the housing unit.

We are doing Update/Enumerate, which began on March 22nd and ends May 29th. Update/Enumerate is primarily used in areas with seasonal housing; therefore, a high number of vacants, American Indian areas, and the colonias in South Texas.

The vast majority of housing units, however, more than 120 million, received their questionnaires in the mail last week. Mailout/Mailback for the 2010 census includes an advance letter, the questionnaire and a reminder postcard; and for the first time, we will

send a replacement questionnaire to about 25 million households in census tracts where we anticipate a low response rate. This will be done on April 3rd.

The staged efforts are intended to encourage participation. We have a program that is available on our Web site, known as Take 10 Challenge. It is a challenge that we have initiated to encourage some friendly competition between communities to compare their response participation rates to each other. As you know, participation is the foundation of an accurate and complete census, but that is not all.

We also have Telephone Questionnaire Assistance and an Integrated Communications program. The goal of the Telephone Questionnaire Assistance is to quickly provide assistance whether it is answering a question, sending a Language Assistance Guide or sending a replacement questionnaire to call us. Further, we have 30,000 Questionnaire Assistance Centers that are now open where respondents can get help filling out a Census form.

But of course, as you know and as we have testified and as our director has testified recently, the cornerstone of the 2010 census promotional effort is the Communications program, which includes both advertising and partnerships. The campaign has proven successful, and we are experiencing high levels of interest and indications of intent to participate in the census.

As you know, by increasing the response rate, we can dramatically affect the costs and effectiveness of our nonresponse operations. In a matter of a few weeks, we will be prepared to send as many as 700,000 temporary workers to the field to enumerate between 47 million and 55 million housing units.

While it is important to note that we are much better prepared than we were in any previous census, we are not without concerns. We continue to manage daily the risk of instability and the limited functionality of our Paper-Based Operations Control System and of our Decennial Applicant, Personnel and Payroll System.

The Census Bureau undertook the development of the Paper-Based Operations Control System as a high-risk alternative in 2008. The compressed PBOCS development schedule has resulted in abbreviated testing cycles which occur much closer to operations than we would have preferred. That, in turn, has led to a higher number of defects than we would have expected. However, we are prioritizing them as we move toward operations. Workarounds, such as staggering start times, sharing printing resources and other such alternatives, are allowing us choices and tradeoffs to ensure successful field operations despite less than perfect IT systems.

I am managing these risks daily, and our outlook is improving. We have recently boasted both the Paper-Based Operations Control System and the DAPPS system infrastructure and technical support.

The Census Bureau remains cautiously optimistic, and I am personally encouraged by recent progress and by the dedication of staff and contractors. In the last couple of weeks, not only have I overseen the installation of new hardware and witnessed a decreasing number of defects, but we have been able to slowly increase user capacity—all indications that, day by day, this system is becoming

mature. PBOCS is functioning and currently supporting our field operations.

Over the next several months, hundreds of important tasks will be completed, and your continued support is crucial to a successful census. Again, I thank the subcommittee for this opportunity, and I am more than happy to answer your questions.

Thank you.

Mr. CLAY. Thank you so much, Mr. Jackson.

[The prepared statement of Mr. Jackson follows:]

PREPARED STATEMENT OF
ARNOLD A. JACKSON
ASSOCIATE DIRECTOR FOR DECENNIAL CENSUS
US CENSUS BUREAU

Information Policy, Census, and National Archives Subcommittee
Of the
Oversight and Government Reform Committee
Thursday, 25 March 2010
2154 Rayburn HOB
2:00 p.m.

2010 Census: A Status Update of Key Decennial Operations

Chairman Clay, Ranking Member McHenry, members of the Subcommittee, I appreciate this opportunity to testify before you and provide an operational update for the 2010 Census, including the status of the Paper-Based Operational Control System (or PBOCS, as we refer to this system).

Mr. Chairman, I would like to assure you that we are underway and proceeding along a path to a successful census—as the efforts of the past several years, including the support of this committee and census stakeholders are now paying dividends.

From his first day in office, Secretary of Commerce Gary Locke has made it a priority for the Census Bureau to carry out a complete and accurate count of the 2010 Census and to ensure that we do so through a robust operational system. It is worth noting, however, that an accurate and complete census is not achieved through a single operation. The census is complex and reflects the rich diversity of our nation—from the native villages of remote Alaska to the multi-storied apartment buildings of our cities such as New York, Los Angeles, Houston, Atlanta, and St. Louis. Since we are a nation of many faces, many ages, and many circumstances, the Census Bureau must implement many strategies to reach every person living in America. These strategies, or

operations, include different enumeration operations such as the mailing out of the census forms, Update/Enumerate, and Update/Leave, as well as specialized Group Quarters Enumeration procedures. To support these operations, we rely on partnerships, promotion, and assistance programs, including the Telephone Questionnaire Assistance, Questionnaire Assistance Centers, and the Integrated Communications Program. All of these efforts, from census operations to promotion, are based on thorough research, extensive coordination and preparation, and most importantly local knowledge in the form of partners and a locally-recruited workforce. And although each has undergone rigorous development and testing, the shear magnitude of the task means that we do not expect everything to function perfectly. We have management information systems to detect problems and then correct them as soon as possible.

Recruitment is an integral part of the operational successes we have experienced so far this year. As of last week, the Local Census Offices (LCO) have recruited approximately 3.4 million people. The ultimate recruiting goal is 3.7 million people by April 25, 2010, for the 1.2 million positions that will be needed for the operations we will conduct this spring, including the Non-Response Follow-Up (NRFU) operation. We recruit this workforce through local community organizations, churches, and advertising, and we rely on this locally-recruited workforce to serve as enumerators, crew leaders, field operations supervisors, clerks, and assistants, as well as LCO-management staff. We know that people are more likely to open their doors to people from their own neighborhood, so the 2010 Census workforce is the most diverse and qualified workforce the Census Bureau has ever recruited.

Many of those hired will work on several operations, including those operations I would like to discuss today as I focus on our current 2010 Census activities, including: Remote Alaska; Group Quarters Advance Visit and Group Quarters Enumeration; Update/Leave; Update/Enumerate; Mailout/Mailback; and our preparation for NRFU. I will also discuss our efforts to promote and support the census, including operational control system all the LCOs use—the PBOCS.

Remote Alaska Update/Enumerate...The "First Enumeration"

The official start of the 2010 Census enumeration began on January 25, 2010, in Noorvik, Alaska. The Remote Alaska operation reflects the unique weather and geographic challenges inherent to an enumeration of approximately 30,000 housing units located in Native Alaskan and remote villages from the Arctic Circle to the Aleutian Chain. We conduct the enumeration between January and April in order to reach the villages before the ice melts and villagers disperse to go hunting and fishing during the warmer

months. While it is a small operation, Remote Alaska piques the interest and imagination of the country each decade as we travel by small plane, snow mobile, and dog sled to ensure that the census is indeed a count of every person living in America. The Census Bureau Director Robert Groves traveled to Noorvik and joined the village celebration for the "First Enumeration" and the resulting news coverage reached an audience of over 80 million people, supplementing the promotional messages for the 2010 Census and supporting the operational efforts throughout the country.

Group Quarters Advance Visit and Group Quarters Enumeration

The Group Quarters population includes residents of institutional facilities, such as prisons, jails, and nursing homes, and non-institutional facilities, such as college dormitories and military barracks. The Group Quarters Enumeration, which begins at the end of this month with the Shipboard Enumeration, is actually the culmination of several operations, including the Group Quarters Validation, conducted last fall to verify the locations and contact information for Group Quarters, and the Group Quarters Advance Visit, the most recent operation. Group Quarters Advance Visit is a crucial step in the process of counting group quarters residents. Beginning at the end of January, census workers visited more than 270,000 group quarters locations, where they consulted with administrators, managers, and staff to develop a plan for the enumeration. The enumerators will work with the facility to obtain an Individual Census Report (ICR), which is the individual census "form," for each of the residents of the group quarter.

Group Quarters Advance Visit at a Glance	
Dates	Week of 31 January – Week of 15 March 2010
Total Field Staff	7182
Initial Workload	240,224
Total Current Workload (includes units added during the operation)	271,233

This is an important step, as group quarters vary dramatically depending on their purpose. The Census Bureau provides alternative procedures to the administrators so that the enumeration can be conducted safely and accurately, and in a manner that minimizes the inconvenience to the staff and residents. For instance, an administrator can choose to provide administrative data for the facility to the census workers, who then fill out the forms. Another alternative is that a Census Bureau Crew Leader may provide all the materials needed for the facility's staff to conduct the enumeration. In

this instance, each member of the facility staff involved in the enumeration must take the Oath of Non-Disclosure and be sworn for life to protect and maintain the confidentiality of the data collected. Group Quarters Advance Visit provided an opportunity for the Census Bureau to work with each facility in advance to explain the operation and answer the facility's questions, which in turn should facilitate the Group Quarters Enumeration, which will be conducted throughout the United States starting in April 2010. The Group Quarters Advance Visit was successfully completed on time and under budget.

Update/Leave and Update/Enumerate

For approximately 90 percent of the housing units in the United States, the census form was delivered by the U.S. Postal Service. For the remaining housing units, including those in Remote Alaska, the Census Bureau will use the Update/Leave and Update/Enumerate strategies to ensure that everyone is counted in the census. During the decade, the Census Bureau's Regional Offices worked closely with Headquarters to identify the best strategy for enumeration in each area.

The Update/Leave enumeration began March 1, 2010, and we are completing the production work this week—on schedule and under budget. We conduct this operation in areas where the "address" may not reflect the actual location of the housing unit or that do not receive either regular or at-home mail delivery, as well as those areas affected by Hurricanes Katrina and Rita given the complex and ever-changing housing inventory. In this operation, census enumerators canvassed the assignment areas to update the address list and census maps and also left a questionnaire for the approximately 11.1 million housing units to return by mail.

Update/Leave Visit at a Glance (to date)	
Dates	1 March – 26 March 2010
Total Field Staff	60,838
Initial Workload	10,399,379
Total Current Workload (includes units added during the operation)	11,127,335

Update/Enumerate began on March 22, 2010, and continues through the end of May 2010. In this operation, enumerators canvass assignment areas to update census address and map information, and enumerate approximately two million housing units. This method of direct enumeration is primarily used in areas with seasonal housing (and therefore, potentially, a high number of vacant housing units), American Indian

areas, and the colonias in South Texas. As previously mentioned, Remote Alaska is an Update/Enumerate operation, and there are other similarly remote areas in the United States that require special travel and other considerations, such as the northern most area of Maine.

Update/Enumerate Visit at a Glance (to date)	
Dates	22 March – 29 May 2010
Total Field Staff	(presently hiring and training staff)
Initial Workload	2,113,644

Mailout/Mailback and Participation Rates

The vast majority of housing units—more than 120 million—received their questionnaires in the mail last week. Mailout/Mailback is a multi-staged strategy designed to promote census participation. This strategy included an Advance Letter (March 8-10), the Questionnaire (March 15-17), a Reminder Postcard (March 22-24), and for some areas where we anticipate a low response rate, a Replacement Questionnaire (which will be delivered starting April 3, 2010). For the first time, we will send a "blanket" replacement questionnaire to approximately 25 million housing units in tracts that had a Census 2000 response rate of less than 59 percent. We will send a "targeted" replacement questionnaire to approximately 15 million housing units in census tracts that had a Census 2000 response rate of less than 67 percent. The remaining non-responding households in "high response" tracts will not receive a replacement questionnaire, mainly because of our inability to remove "late mail returns" from NRFU and the limited capacity of the private sector printers for this large-scale short-turnaround operation.

The 2010 Census also includes a Bilingual English/Spanish questionnaire—which is a census first. The bilingual questionnaire was sent to approximately 12 million housing units in tracts where at least 20 percent of the occupied housing units require Spanish language assistance. This assessment is based on data from the 2005-2007 American Community Survey questions "Language Spoken at Home" and "Ability to Speak English." Additionally, the census form is available by request in Chinese, Korean, Russian, Spanish, and Vietnamese and the Census Bureau has created 59 Language Assistance Guides. All of these efforts have been promoted on the 2010census.gov website, by our partners, and through a direct mail postcard that was sent to approximately nine million housing units.

These efforts—from the mailing strategy to the promotion efforts—are intended to encourage participation. We are also promoting the mailback through a very special challenge. The Census Bureau has issued the "Take 10 Challenge" to encourage every household to take 10 minutes to complete the census form and mail it back so that they can be counted. We will post the daily participation rates along with maps for states and localities on the 2010census.gov site, including St. Louis, Missouri and Cherryville, NC. We hope to stir up some friendly competition as browsers can not only compare the results for their community to Census 2000 but also to the 2010 Census participation rates for communities across the country.

Assistance and Outreach Efforts

Participation is the foundation to an accurate and complete census and it has practical implications for the cost of the census as well, as the response rate sets the stage for the NRFU operation. For these reasons, we have undertaken unprecedented assistance and outreach efforts to promote participation that range from Telephone Questionnaire Assistance, the 30,000 Questionnaire Assistance Centers, and Language Assistance Guides, where respondents can get direct assistance in completing the census forms to the Integrated Communications Program, which encourages participation through partnership and advertising with messages about the importance, safety, and simplicity of the 2010 Census.

The goal of the Telephone Questionnaire Assistance program, which is a part of the Decennial Response Integration System (DRIS) contract, is to provide a convenient way for respondents to get answers to basic questions about the census. There are five Telephone Questionnaire Assistance Call Centers where we rely on both Interactive Voice Response (IVR) technology and live operator response modes in six languages and TDD (Telecommunication Device for the Deaf), as well as separate lines for Puerto Rico and for people receiving experimental forms. Our goal is to quickly provide assistance—whether it is answering a question, sending a Language Assistance Guide, or sending a replacement form. According to the standard metrics for this industry such as "Average Speed to Answer" (which is the average time it takes an operator to answer a call) and "Average Time to Abandon" (which is the average time it takes for a caller to "hang up" prior to reaching an agent), the program is on track and doing well. We are pleased with the implementation of this program and will continue to monitor its productivity and provide the committee with updates.

Telephone Questionnaire Assistance at a Glance (to date)	
Call Centers Total	5
- Sandy, UT	2
- Lawrence, KS	1
- Monticello, KY	1
- Phoenix, AZ	1
Total Calls Overall	864,756
Average Speed to Answer Overall	5 seconds
Average Time to Abandon Overall	226 seconds

Telephone questionnaire assistance is not the only means of assistance. The Census Bureau also established more than 30,000 Questionnaire Assistance Centers throughout the country where respondents can get individual help filling out the form. These centers, which are staffed by sworn Census Bureau employees, opened on March 19, 2010, in Mailout/Mailback areas, and even earlier in Update/Leave areas. Anyone looking for a center can visit 2010census.gov to search for the nearest center using a Google map search. Each site will be listed including the address and the specific hours and days of the week when it is open. Additionally, the Questionnaire Assistance Centers also serve as Be Counted sites where someone can pick up a census form if for some reason they think they were not included on the census form at their address or they did not receive a census form. These and an additional 10,000 Be Counted sites are also operational from March 19th through April 19th.

Questionnaire Assistance Centers and Be Counted Sites at a Glance (to date)	
Questionnaire Assistance Centers/Be Counted Sites	29,963
Be Counted Sites (additional)	9978

The most visible way we are promoting participation is through the Integrated Communications Program, which includes both advertising and partnerships. The advertising program which kicked off January 19, 2010, with awareness messaging, has now moved to the all-important motivation messaging to encourage response: "We Can't Move Forward Until You Mail it Back." The motivation messaging phase features advertising in 28 languages around the theme "March to the Mailbox." The overall campaign has been successful and we were encouraged by recent public opinion data from Zogby International, the Pew Research Center for the People and the Press, and Ipsos all indicate both high levels of awareness and intent to complete the census.

These data are consistent with the Census Bureau's internal data and confirm the overall direction of the campaign.

We are tracking the campaign closely and are considering additional funding from existing resources to augment the advertising campaign to address certain gaps. For instance, we are concerned that as a result of the current economy, many people find themselves in unexpected housing arrangements and are displaced from their typical living quarters, living with friends or relatives or living in transitory locations, such as campgrounds or parks. We will work closely with the contractor, DraftFCB, to assess this and other needs.

Non-Response Follow Up (NRFU)

Our goal with these and other efforts is simply to reach as many people as possible and to encourage participation. By increasing the response rate, we reduce the workload for NRFU. NRFU is by far the largest operation and a major portion of the census infrastructure and budget is dedicated to it. In a matter of five weeks, on May 1, 2010, approximately 700,000 temporary census takers will begin to visit those housing units that did not respond to the census. We estimate that between 46.9 and 55.3 million housing units must be enumerated during NRFU and that we will be in the field through late-July.

It is important to note that we are better prepared than in any previous census. We have surpassed our recruiting goals, have a highly qualified applicant pool, and we will have specific advertising for NRFU to promote cooperation with the census takers, as well as over 216,000 active partners who will also reinforce this message of cooperation with the enumerators. In addition, we have done a comprehensive reevaluation of the NRFU cost estimation model. We performed this analysis to determine whether the current budget for NRFU was adequate to successfully complete operations.

The FY 2010 enacted budget is based on cost estimates using a number of components that were developed early in the decade or were revisited when the decision was made to go back to paper operations. The components include staff productivity, the number of cases requiring follow up, and cost drivers such as salary and mileage. The baseline budgeted for NRFU was $2.74 billion.

However, as the census approached, our knowledge of these components improved based on additional experience and data. These included experiences such as Address Canvassing and Group Quarters Validation as well as revisiting Census 2000 observations and experiences. We also worked with a panel of experts in both

headquarters and field operations to determine the impact of this information on cost drivers. This process led us to identify components that needed to be updated and those that could remain as part of the original estimate. The components that emerged as areas for the greatest concern were workload and productivity due to their high uncertainty and impact on costs. Working with subject matter experts, we developed several likely alternative cost scenarios for these components, and we have recently briefed your staffs on the details of this effort.

The analysis indicates that NRFU operations can very likely be completed within the original budget despite external factors that we believe will increase NRFU workload and lower productivity. The ability to fit within budget in light of new information would not have been possible without changes to the NFRU operations, including the management decision to maintain the 2009 hourly salary levels, rather than increase them in FY 2010 according to the original plan, which was based on assessment of current employment and economic conditions.

We have also closely reviewed the budgets for the NRFU reinterview operation and the Vacancy/Delete Check operation, and we will continue to monitor changing external conditions and update each estimate as more information becomes available.

Paper-Based Operations Control System (PBOCS)

While the 2010 Census is proceeding smoothly overall, we are not without concerns—especially as we prepare for NRFU. One of the primary concerns is for stability and functionality of the Paper-Based Operations Control System (PBOCS), as well as for the Decennial Applicant Personnel and Payroll System (DAPPS). Both systems are essential for NRFU, as they are used to control the workflow (in the case of PBOCS) and to support and administer payroll for the temporary workforce (in the case of DAPPS).

The Census Bureau undertook the development of the PBOCS following the re-scope of the Field Data Collection Automation (FDCA) contract in 2008 and with the decision to proceed with a paper-based census. At that time, the Census Bureau openly acknowledged the risk we had accepted in assuming the development and implementation of this system in such a compressed timeframe. But we felt that such risk was lower than the alternative (proceeding with the existing FDCA contract) and we have we maintained a "high risk" rating for the PBOCS. The compressed time schedule has resulted in abbreviated testing cycles, which occur much closer to operations than we would have preferred, in higher levels of defects when we release the system into production, and in functionality trade-offs and workarounds.

But we are managing the risks and communicating openly with internal stakeholders, and with the Office of the Inspector General (OIG) and the Government Accountability Office (GAO), who have provided valuable insights and recommendations. All of the operations previously mentioned were supported successfully with the PBOCS, but we remain vigilant and have established key processes to monitor the program. The 2010 Census Application Readiness and Infrastructure Stability (ARIS) group and the PBOCS Steering Committee both meet on a daily basis to resolve resource issues and decide priorities. The ARIS groups reports to me, to the Associate Director of Field Operations, and to the Chief Information Officer, and we provide weekly status reports to the Director and Deputy Director. ARIS provides focused, centralized leadership and coordination of efforts to finalize the PBOCS applications. It is this group's responsibility to reallocate resources, resolve conflicting priorities, and maintain the system-related schedules and plans. The Steering Committee represents key stakeholder divisions and manages risks as they relate to the development, testing, and operational implementation. The Steering Committee is also responsible for prioritizing development activities and resolution of defects, as well as establishing workarounds when needed such as staggering start times for logging onto the PBOCS or printing materials at headquarters or the National Processing Center.

In addition to the support of ARIS and the Steering Committee, the Census Bureau is also reinforcing PBOCS in several other key efforts as we work 24-7 to ensure that the system is set for NRFU. We have reinforced both the PBOCS production and COOP (Continuity of Operations) hardware environments and have enhanced the technical support and procedures through the Help Desk and we have revised documentation. Additionally, DAPPS, our critical payroll and personnel management system was migrated to an enhanced environment, enabling us to continue secure, reliable selection, hiring, and pay processing as we approach NRFU.

The Census Bureau remains cautiously optimistic for successful implementation of the PBOCS. I am personally encouraged by the staff and contractor dedication. In the last couple of weeks I have overseen the successful installation of new hardware, a decreasing number of defects, and increasing user capacity; these are all indicators that day-by-day the system is maturing. It is also important to acknowledge that the PBOCS is functioning and currently supporting our operations and we are working through issues, including recent difficulties in updating the Cost and Progress System, which we use to track cost and productivity. The PBOCS was effectively used for Remote Alaska, Group Quarters Validation, and Update/Leave, and it is being used for Update/Enumerate. All of these operations began on time and were managed successfully with the PBOCS, despite any issues—and that gives me confidence when I consider the next several months.

Conclusion

Over the next several months, hundreds of important tasks must be completed across all components of the decennial census program, including data capture, NRFU, Vacant Delete Check, and later activities—all leading to the ultimate delivery of the apportionment data at the end of December and redistricting data in February and March. As I mentioned earlier, I believe we are on a path to success and that we can successfully meet the challenges and risks we face. We will have bumps along the way – every census since 1790 has had them—and we promise to be quick to fix the problems as they arise. Your continued support is crucial to a successful census and I look forward to working with you in the coming months.

I thank the subcommittee for this opportunity and would be happy to answer your questions.

Mr. CLAY. Mr. Goldenkoff, you may proceed.

STATEMENT OF ROBERT GOLDENKOFF

Mr. GOLDENKOFF. Chairman Clay, Ranking Member McHenry, members of the subcommittee, thank you for the opportunity to be here today to provide an update on the Census Bureau's readiness for the 2010 enumeration. With 1 week remaining until census day, the Nation has entered one of the most crucial time periods in the decade-long census life cycle.

Earlier this month, the Bureau mailed out questionnaires to around 120 million households. In the coming weeks, the Bureau will launch additional operations aimed at enumerating certain hard-to-count populations as well as the estimated 50 million households that fail to mail back their Census forms. The success of these operations will have a major impact on the accuracy of the census as well as its ultimate cost, now estimated at around $14.7 billion.

As requested, I will update the subcommittee on the state of the census, paying particular attention to, first, the reliability of key IT systems and, second, the extent to which critical enumeration activities are on track.

Overall, the Bureau's readiness for a successful head-count is mixed. It is deeply troubling that, at this late date, two critical IT systems have not yet demonstrated their ability to function reliably under full operational loads. The performance problems plaguing these two systems represent the most significant threat to the cost and the quality of the enumeration.

Specifically, the Decennial Applicant Personnel and Payroll System [DAPPS], the automated system the Bureau is using to process applicants and handle the payroll of the Bureau's massive temporary labor force—needed to be fully functional under a heavy load, by mid-March. However, the system had limited capacity and was sluggish. These shortcomings occurred despite the fact that 100,000 temporary employees were on board, far below the roughly 600,000 employees that will be working when nonresponse followup is in full swing in a few weeks.

As of March 22nd, Bureau officials stated that they had taken steps to improve DAPPS' performance, including upgrading the system's software and installing additional hardware. More will be known about the success of these fixes in the coming days.

The Bureau also needs to resolve ongoing problems with the workflow management system it will use to administer its field operations. Although the first release of this system was deployed for early field activities in January and certain components of the second release were deployed in February, both releases have known defects, including limited functionality, slow performance, and problems generating certain progress and performance reports. The Bureau also restricted the number of users in each local Census office due to capacity limitations.

What's more, the component of the second release that will be used to manage nonresponse followup, the largest Census field operation, is still being tested and is scheduled to be released in mid-April. This is about 3 weeks later than planned and barely ahead of when nonresponse followup is scheduled to begin in early May.

As a result, little time will be left to resolve any problems identified during testing.

Other functions are faring better. Key enumeration activities are generally on track, and some activities aimed at improving the participation of hard-to-count groups are more robust compared to similar efforts during the 2000 census.

For example, the Bureau has launched an aggressive outreach and promotion effort. Key differences from 2000 include increased staffing for the Bureau's partnership program, targeted paid advertising based on market and attitudinal research, and a contingency fund to address unexpected events.

Moreover, to improve the participation of transient seasonal farm workers and others at risk of being missed by the census, the Bureau launched its Be Counted program earlier this month. This effort makes forms available in around 40,000 locations across the country, such as libraries and community centers.

Moving forward, it will be important for the Bureau to quickly identify the problems affecting key IT systems and test solutions. Further, given the complexity of the census and the likelihood that other glitches might arise, it will be important for the Bureau to stay on schedule, monitor operations and have plans and personnel in place to quickly address operational issues.

These operational considerations aside, I want to stress that the Census Bureau cannot secure a complete count on its own. The public must also fulfill its civic duty to return their questionnaires in a timely manner. According to the Bureau, each percentage point increase in the mail response rate saves taxpayers around $85 million and yields more accurate data.

The bottom line is that the success of the 2010 census is now, to a large degree, in the hands of the Nation's residents.

Chairman Clay, Ranking Member McHenry, this concludes my remarks, and I will be happy to answer any questions that you or other members of the subcommittee might have.

Mr. CLAY. Thank you so much, Mr. Goldenkoff.

[The prepared statement of Mr. Goldenkoff 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

For Release on Delivery
Expected at 2:00 p.m. EDT
Thursday, March 25, 2010

2010 CENSUS

Data Collection Is Under Way, but Reliability of Key Information Technology Systems Remains a Risk

Statement of Robert Goldenkoff, Director
Strategic Issues

GAO
Accountability * Integrity * Reliability

GAO-10-567T

March 25, 2010

GAO
Accountability·Integrity·Reliability

Highlights

Highlights of GAO-10-567T, a testimony before the Subcommittee on Information Policy, Census, and National Archives, Committee on Oversight and Government Reform, House of Representatives

2010 CENSUS

Data Collection Is Under Way, but Reliability of Key Information Technology Systems Remains a Risk

Why GAO Did This Study

In March 2008, GAO designated the 2010 Census a high-risk area in part because of information technology (IT) shortcomings and uncertainty over the ultimate cost of the census, now estimated at around $15 billion. The U.S. Census Bureau (Bureau) has since made improvements to various IT systems and taken other steps to mitigate the risks to a successful census. However, last year, GAO noted that a number of challenges and uncertainties remained, and much work remained to be completed under very tight time frames.

As requested, this testimony provides an update on the Bureau's readiness for an effective headcount, covering (1) the reliability of key IT systems; (2) a broad range of activities critical to an effective headcount, some of which were problematic in either earlier 2010 operations or in the 2000 Census, and (3) the quality of the Bureau's cost estimates. The testimony is based on previously issued and ongoing GAO work.

What GAO Recommends

GAO is not making new recommendations in this testimony, but past reports recommended that the Bureau strengthen its testing of key IT systems and better document and update its cost estimates. The Bureau generally agreed with these recommendations and is in varying stages of implementing them.

View GAO-10-567T or key components. For more information, contact Robert Goldenkoff at (202) 512-2757 or goldenkoffr@gao.gov.

What GAO Found

Overall, the Bureau's readiness for a successful headcount is mixed. On the one hand, performance problems continue to plague a work flow management system essential for the Bureau's field operations and a payroll processing system that will be used to pay more than 600,000 temporary workers. Both systems have not yet demonstrated the ability to function reliably under full operational loads, and the limited amount of time that remains to address their shortcomings creates a substantial challenge for the Bureau. Aside from the mail response, which is outside of the Bureau's direct control, the difficulties facing these two automated systems represent the most significant risk, jeopardizing the cost and quality of the enumeration.

On the other hand, the rollout of other key enumeration activities is generally on track, and the Bureau has taken action to address some previously identified problems. For example, the Bureau has taken steps to reduce the number of temporary workers with unreadable fingerprint cards, a problem that affected an earlier field operation. Among other actions, the Bureau plans to digitally capture a third and fourth set of fingerprints if the first two sets cannot be read for background security checks. The Bureau's 2010 Census communications campaign is also more robust than the one used in the 2000 Census. Key differences from the 2000 campaign include increased partnership staffing, expanded outreach to partner organizations, targeted paid advertising based on market and attitudinal research, and a contingency fund to address unexpected events. To increase participation rates, the Bureau plans to mail a second, replacement questionnaire to census tracts that had low or moderate response rates in the 2000 Census. To help ensure that hard-to-count populations are enumerated, the Bureau plans to employ several initiatives. For example, Service Based Enumeration is designed to count people who lack permanent shelter at soup kitchens, mobile food vans, and other locations where they receive services. The Be Counted program is designed to reach those who may not have received a census questionnaire. To help ensure a complete count of areas along the Gulf Coast, the Bureau is hand delivering an estimated 1.2 million census forms in areas that were devastated by hurricanes Katrina, Rita, and Ike.

In addition, the Bureau re-examined its cost estimate for Nonresponse Follow-up, the largest and most costly field operation where census workers follow up in person with nonresponding households. The Bureau provided a range of estimates, with $2.3 billion as the mid-point. However, the Bureau's analyses of cost are not complete. According to the Bureau, it continues to reexamine the cost of two other operations related to nonresponse follow-up.

Moving forward, it will be important for the Bureau to quickly identify the problems affecting key IT systems and test solutions. Further, given the complexity of the census and the likelihood that other glitches might arise, it will be important for the Bureau to stay on schedule, monitor operations, and have plans and personnel in place to quickly address operational issues.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the U.S. Census Bureau's (Bureau) readiness for the 2010 Census. With Census Day, April 1, fast approaching, the nation has entered one of the most crucial time periods in the decade-long census life-cycle. In mid-March, the Bureau delivered questionnaires to around 120 million households, and in the coming weeks, the Bureau will launch additional operations aimed at counting people in migrant worker housing, boats, tent cities, homeless shelters, nursing homes, dormitories, prisons, and other diverse dwellings, as well as millions of households that fail to mail back their census questionnaires, all in an effort to ensure a complete and accurate enumeration. In short, the success of these operations will have a major impact on the ultimate cost and accuracy of the census.

The task confronting the Bureau is enormous. Few peacetime endeavors, if any, can match the 2010 Census in terms of size, scope, complexity, and immutable deadlines. Indeed, to secure a successful headcount, the Bureau needs to align thousands of activities, process millions of forms, hire around 1 million temporary employees, and partner with thousands of public and private sector entities across the country. The Bureau needs to do all this and more, do it right, and do it under an extremely tight schedule.

At the same time, the unprecedented commitment of resources and total cost of the census—now estimated at around $14.7 billion—underscores the importance of identifying lessons learned from the 2010 headcount in order to reexamine the nation's approach to the 2020 Census and future population tallies.

As you know, in March 2008, we designated the 2010 Census a high-risk area because of cost overruns and weaknesses in the Bureau's information technology (IT) acquisition and contract management function.[1] In the months that followed, the Bureau made commendable progress in reducing the risks to a successful census. Nevertheless, this past February, we testified that overall the Bureau's readiness for a successful headcount is mixed. On the one hand, key IT systems—most notably an automated system used to manage field data collection known as the Paper-Based

[1]GAO, *Information Technology: Significant Problems of Critical Automation Program Contribute to Risks Facing 2010 Census*, GAO-08-550T (Washington, D.C.: Mar. 5, 2008).

Operations Control System (PBOCS) and a personnel and payroll processing system called the Decennial Applicant Personnel and Payroll System (DAPPS)—were experiencing significant performance issues.[2] On the other hand, the rollout of other key enumeration activities is generally on track, and the Bureau has taken action to address some previously identified problems.

As requested, my remarks today will focus on the Bureau's preparedness for the 2010 Census and the challenges and opportunities that lie ahead. In particular, I will provide an update on the progress the Bureau is making in addressing issues that prompted us to designate the 2010 Census a high-risk area, including (1) the reliability of key IT systems; (2) a broad range of activities critical to an effective headcount, some of which were problematic in either earlier 2010 operations or in the 2000 Census; and (3) the quality of the Bureau's cost estimates. The broad range of activities I will discuss today include procedures for fingerprinting temporary employees; the rollout of key marketing efforts aimed at improving the participation of hard-to-count populations and how American Recovery and Reinvestment Act of 2009 (Recovery Act)[3] funds are being used as part of that effort; the Bureau's plans for mailing a second, follow-up questionnaire and the removal of late mail returns; and the Bureau's plans to enumerate people who are vulnerable to being missed by the census, including the homeless and those displaced by recent economic conditions and the hurricanes that slammed the Gulf Coast.

My testimony today is based on our ongoing and completed reviews of key census-taking operations.[4] In our review, we analyzed key documents, including plans, procedures, and guidance for the selected activities, and interviewed cognizant Bureau officials at headquarters and local census offices. In addition, we made on-site observations of certain census promotional events in Boston, Washington D.C., and Atlanta, and observed the Bureau's efforts to hand deliver census questionnaires to those in hurricane-affected areas along the Gulf Coast.

[2]GAO, *2010 Census: Key Enumeration Activities Are Moving Forward, but Information Technology Systems Remain a Concern,* GAO-10-430T (Washington, D.C.: Feb. 23, 2010).

[3]Pub. L. No. 111-5 (Feb. 17, 2009).

[4]See related GAO products at the end of this statement.

On March 18, 2010, we provided the Bureau with a statement of facts for our audit work, and on March 22, 2010, the Bureau provided written comments. The Bureau made some suggestions where additional context or clarification was needed, and where appropriate, we made those changes. We conducted our work in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audits to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In summary, the Bureau's readiness for conducting the 2010 Census remains mixed. Aside from the mail response rate, which is outside of the Bureau's direct control, the most significant risk jeopardizing the cost and quality of the enumeration lies in the performance problems that continue to plague DAPPS and PBOCS. Indeed, neither system has yet demonstrated the ability to function reliably under full operational loads, and the limited amount of time that remains to improve the reliability of these systems creates a substantial challenge for the Bureau.

In other areas, the Bureau continues to make progress. For example, the Bureau has improved its fingerprinting procedures for temporary workers, and its plans to enumerate certain hard-to-count populations are generally on track and more robust compared to similar efforts during the 2000 Census.

Finally, the Bureau's analyses of cost are not complete. While the Bureau has finalized its reexamination of Nonresponse Follow-up (NRFU) costs, it continues to update the costs for other NRFU-related operations.

Now that the enumeration is under way, it is important to keep in mind that the size and scope of the tally makes various glitches all but inevitable. In light of this difficult operating environment, as the Bureau well knows, it will be critical to (1) stay on schedule; (2) closely monitor operations with appropriate cost, performance, and scheduling metrics; and (3) have appropriate plans and personnel in place to quickly address operational issues.

Importantly, I also want to stress, as we have done in the past, that the Bureau cannot conduct a successful enumeration on its own. Indeed, the

decennial census is a shared national undertaking, and it is now up to the general public to fulfill its civic responsibility to mail back the census questionnaires in a timely fashion.[5] According to the Bureau, each percentage point increase in the mail response rate saves taxpayers around $85 million and yields more accurate data compared to information collected by enumerators from nonrespondents. The bottom line, Mr. Chairman, is that a key determinant of the success of the 2010 Census is now in the hands of the American people.

Background

As you know, Mr. Chairman, the decennial census is a constitutionally mandated enterprise critical to our nation. Census data are used to apportion congressional seats, redraw congressional districts, and help allocate hundreds of billions of dollars in federal aid to state and local governments each year.

Although an accurate population count is always a difficult task, the 2010 Census is a particular challenge because of various societal trends, such as concerns over personal privacy, more non-English speakers, and more people residing in makeshift and other nontraditional living arrangements because of economic dislocation or natural disasters. As a result, the Bureau is finding it increasingly difficult to locate people and get them to participate in the census.

In developing the 2010 Census, a long-standing challenge for the Bureau has been the reliability of its IT systems. For example, in March 2009, we reported that the Bureau needed to develop a master list of interfaces between systems, set priorities for the testing of interfaces based on criticality, and develop testing plans and schedules.[6] In the months that followed, while the Bureau strengthened its management and oversight of its IT systems, additional work was needed under very tight time frames.

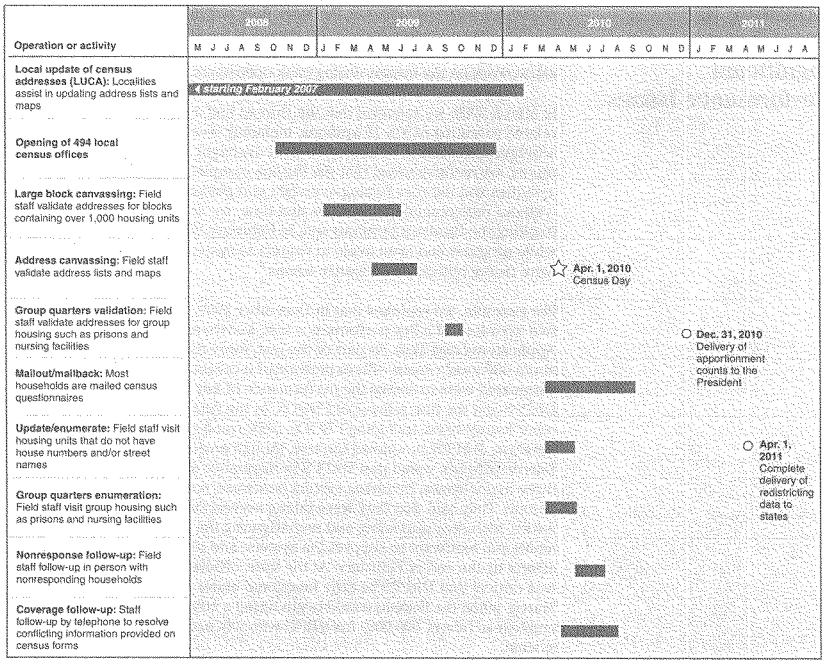
More generally, now that the census has moved to the operational phase, it will be important for the Bureau to stay on schedule. The enumeration has several absolute deadlines, and an elaborate chain of interrelated pre- and

[5]GAO, *2010 Census: Census Bureau Continues to Make Progress in Mitigating Risks to a Successful Enumeration, but Still Faces Various Challenges*, GAO-10-132T (Washington, D.C.: Oct. 7, 2009).

[6]GAO, *Information Technology: Census Bureau Testing of 2010 Decennial Systems Can Be Strengthened*, GAO-09-262 (Washington, D.C.: Mar. 5, 2009).

post-Census Day activities are predicated upon those dates. Specifically, the Department of Commerce—the Bureau's parent agency—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 reporting requirements, census activities need to take place at specific times and in the proper sequence. A timeline of key census operations is shown in figure 1.

Figure 1: Time Frames for Key Census Activities



Source: GAO summary of U.S. Census Bureau information.

Key IT Systems Continue to Experience Significant Performance Issues

Although the Bureau has made progress in testing and deploying IT systems for the 2010 Census, significant performance issues need to be addressed with both PBOCS, the work flow management system, and DAPPS, the automated system the Bureau is using to process applicants and handle the payroll of the more than 600,000 temporary employees who are to work on the census during peak operations.

In March 2009, we reported that the Bureau had a number of problems related to testing of key IT systems, including weaknesses in test plans and schedules, and a lack of executive-level oversight and guidance.[7] In that report, we recommended that the Bureau complete key system testing activities and improve testing oversight and guidance. The Bureau agreed with our recommendations. Since that time, we have been monitoring and tracking the Bureau's progress and, in February 2010, we testified that while progress had been made in respect to system testing, key IT systems were facing critical performance issues.[8]

For example, we reported that in December 2009, the Bureau completed two iterations of a key performance test, known as the Decennial Application Load Test. As part of the test, more than 8,000 field staff at about 400 local census offices performed a combination of manual and automated tests to assess the performance of key IT systems, including DAPPS and the first release of PBOCS. In the first test, DAPPS failed and other key systems, including PBOCS, performed slowly. In the second iteration, DAPPS completed the test, though performance was slow. Bureau officials stated that DAPPS performance shortfalls were a result of three major issues, involving system hardware, software, and the operating system. They said that they were taking several steps to resolve these issues, including upgrading and reconfiguring the system, and deploying additional hardware to support the system, and planned to complete these efforts by the end of February. At the time, officials acknowledged that it was critical that DAPPS be fully functional under a heavy load by mid-March, when the Bureau would begin hiring a large number of temporary employees (about 600,000) for NRFU who will need to be paid using the system.

The Bureau has since completed many steps to improve DAPPS performance, and more are planned. However, as of mid-March, the

[7]GAO-09-262.

[8]GAO-10-430T.

system was still experiencing capacity limitations and slow response. These shortcomings were occurring even though approximately 100,000 temporary employees were currently being paid using the system versus the more than 600,000 employees that will need to be paid at the peak of field operations. For example, Bureau officials stated that they had already instructed DAPPS users to implement several work-arounds to improve system performance, such as reducing the number of system-intensive reports generated during peak hours. As of March 22, Bureau officials stated that they had completed additional steps to improve DAPPS performance, including upgrading and reconfiguring the system's software and installing additional hardware. However, Bureau officials also stated that additional testing and system refinements may be needed to determine if these upgrades will address the performance issues previously described. Bureau officials stated that they may not have sufficient time and resources to add additional server capacity if these upgrades are not sufficient, so if performance problems remain, officials stated that the Bureau will identify additional work-arounds to reduce the demand on the system, including limiting the frequency and times when field office staff can generate certain reports and run system-intensive operations.

Performance issues with PBOCS still need to be addressed as well. While the first release of this system was deployed for early census field operations in January 2010 and certain components of the second release were deployed in February 2010, both releases have known defects, such as limited functionality, slow performance, and problems generating certain progress and performance reports. For example, Bureau officials from a local census office in the Gulf Coast, working on hand delivering questionnaires in the hurricane-affected area, indicated that PBOCS has been operating very slowly and is occasionally unavailable. Although not necessarily indicative of PBOCS issues occurring elsewhere in the country, it does highlight some of the productivity problems resulting from the shortcomings with PBOCS. The Bureau has also had to restrict the number of PBOCS users per local census office due to capacity limitations. In many cases, temporary work-arounds have been communicated to field staff; however, these issues must be resolved and retested. Furthermore, the component of the second release that will be used to manage NRFU, the largest field operation, is still being tested and is not planned for deployment until mid-April 2010—about 3 weeks later than planned. With the NRFU operation scheduled to begin in early May 2010, this leaves little time to address issues identified during testing. Lastly, the development and testing of the third release of PBOCS is needed before the system is

ready for later field operations, such as the final check of housing unit status (known as field verification), scheduled to begin in August 2010.

In recognition of the serious implications that a failed PBOCS would have for conducting the 2010 Census, the Bureau has taken additional steps to mitigate the outstanding risks. For example, in June 2009, the Bureau chartered an independent assessment team, chaired by the Bureau's Chief Information Officer, to monitor and report on, among other things, the system's development and testing progress. Further, the Bureau stated that in January 2010, it also established the 2010 Census Application Readiness and Infrastructure Stability Group in order to centralize leadership and coordination efforts across key systems, including PBOCS. These efforts are encouraging. However, the aggressive development and testing schedule presents various challenges. For example, two of the three releases of PBOCS were not included in the performance test in December because development of these releases had not yet been completed. This increases the risk that performance issues, such as those described above, may reoccur in future releases of the system, and the Bureau's ability to resolve and retest these issues before the system is needed for key field operations will be limited.

In addition to DAPPS and PBOCS, the Bureau will rely on six other key automated systems to conduct the census. Progress has been made with respect to system testing. However, much system testing remains to be completed in the next few months, as shown in table 1.

Table 1: Status of Key System Testing Activities

Census system	Description	Status of testing activities
Headquarters Processing – Universe Control and Management	Organizes address files into enumeration "universes," which serve as the basis for enumeration operations and response data collection.	System development is divided into three phases. According to the Bureau, the first of three phases was deployed for initial operations in July 2009, which was completed in January 2010. Limited functionality of the second release was deployed beginning in December 2009, and deployment of the remaining functionality is planned to be completed by September 2010.
Headquarters Processing – Response Processing System	Receives response data and edits the data to help eliminate duplicate responses by, for example, identifying people who have been enumerated more than once.	System development is divided into six components. The first component of this system was deployed in February 2010. The program plans to complete testing of the five remaining components by December 2010.

Census system	Description	Status of testing activities
Master Address File/Topologically Integrated Geographic Encoding and Referencing system	Provides geographic information and support to aid the Bureau in establishing where to count the U.S. population for the 2010 Census.	The system has been functioning in a limited capacity since September 2007; however, additional testing is needed for 2010 operations. As of January 2010, all nine test plans for 2010 operations have been finalized. Testing activities for one test plan have been completed, seven are under way, and one has not yet started. Geographic information needed to support key operations, such as NRFU, is planned to be delivered by April 2010.
Field Data Collection Automation (FDCA)	Provides automation support for field data collection operations. It includes the development of handheld computers for the address canvassing operation and the systems, equipment, and infrastructure that field staff will use to collect data.	Development and testing for FDCA has been completed. The FDCA applications related to address canvassing were deployed and the operation completed. Map printing software has been deployed to field offices. The FDCA contractor is supporting map printing activities.
Decennial Response Integration System	Collects and integrates census responses from all sources, including forms and telephone interviews.	Six increments of system development and testing, as well as additional operational testing, have been completed. System functionality for paper data capture capabilities were deployed in early March 2010. Additional functionality for the coverage follow-up operation, where census workers follow-up to resolve conflicting information provided on census forms, is planned for deployment in mid-April 2010.
Data Access and Dissemination System II (DADS II)	Replaces legacy systems for tabulating and publicly disseminating data.	The system consists of two subsystems, each with three iterations of development and testing. For one subsystem, the program is testing the second of the three iterations. For the other subsystem, the program is currently testing the third iteration. DADS II is needed for operations beginning in December 2010.

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

Given the importance of IT systems to the decennial census, it is critical that the Bureau ensure that DAPPS, PBOCS, and other key systems are thoroughly tested and able to meet full operational requirements. The limited amount of time to resolve what are, in certain cases, significant performance issues creates a substantial challenge for the Bureau.

The Implementation of Key Enumeration Activities Continues to Make Progress

In contrast to the IT systems, the rollout of other activities is going more smoothly. Indeed, the Bureau has taken steps to address certain previously identified problems, and its plans to improve the enumeration of hard-to-count groups are generally more robust compared to similar activities during the 2000 Census. Those activities include procedures for fingerprinting temporary employees; the rollout of key marketing efforts aimed at improving the participation of hard-to-count populations; the Bureau's plans for mailing a second, follow-up questionnaire and the removal of late mail returns; activities aimed at including the homeless and people residing in nonconventional dwellings; and the Bureau's plans to

secure a complete count of those in the hurricane-affected areas along the Gulf Coast.

Bureau Has Taken Steps to Reduce the Number of Unclassifiable Fingerprints of Temporary Workers

The Bureau plans to fingerprint its temporary workforce for the first time in the 2010 Census to better conduct background security checks on its workforce of hundreds of thousands of temporary census workers.[9] However, the Bureau found that during address canvassing, an operation that the Bureau conducted in the summer of 2009 to verify every address in the country, 22 percent of the workers (approximately 35,700 people) hired for the operation had unclassifiable prints. The Federal Bureau of Investigation (FBI) determined that this problem was generally the result of errors that occurred when the prints were first taken at the local census offices.

To fingerprint workers during address canvassing, Bureau employees captured two sets of fingerprints on ink fingerprint cards from each temporary worker by the end of the workers' first day of training. The cards were then sent to the Bureau's National Processing Center in Jeffersonville, Indiana, to be scanned and electronically submitted to the FBI. If the first set of prints were unclassifiable, then the National Processing Center sent the FBI the second set of prints. If the results showed a criminal record that made an employee unsuitable for employment, the Bureau either terminated the person immediately or placed the individual in a nonworking status until the matter was resolved.

To help ensure the success of fingerprinting operations for NRFU—which will peak at approximately 484,000 fingerprint submissions over a 3-day period from April 28-30, 2010—the Bureau will follow similar procedures, but has taken additional steps to improve fingerprint image quality. The steps include refining training manuals used to instruct local census office staff on how to take fingerprints, scheduling fingerprint training closer to when the prints are captured, and increasing the length of training. Further, the Bureau plans on using an oil-free lotion during fingerprinting that is believed to raise the ridges on fingertips to improve the legibility of the prints.

[9]For the 2000 Census, temporary employees were subject only to a background check on their names.

The Bureau has also revised its procedures for refingerprinting employees when both fingerprint cards cannot be read. During address canvassing, if both sets of fingerprints were unclassifiable, workers were allowed to continue working if their name background check was acceptable and would be refingerprinted only if rehired for future operations. Under the revised policy, the Bureau plans, wherever operationally feasible, to digitally capture a third and fourth set of fingerprints if the FBI cannot classify the first two sets. The Bureau plans to purchase approximately 1,017 digital fingerprint scanners. Each local census office will receive at least one machine, with the remaining scanners to be distributed at the discretion of the Regional Director. The Bureau estimates that this additional step could reduce the percentage of workers with unclassifiable prints from 22 percent to approximately 10 to 12 percent, or an estimated 60,000 to 72,000 temporary workers for NRFU. We did not receive a response from the Bureau on whether it will allow those workers with unclassifiable prints to continue to work on NRFU operations.

The Bureau's Communications Campaign Is Aimed at Hard-to-Count Groups

A complete and accurate census is becoming an increasingly daunting task, in part because the nation's population is growing larger, more diverse, and more reluctant to participate. To overcome these challenges, the Bureau has developed the Integrated Communications Campaign aimed at, among other things, improving the mail response rate and reducing the differential undercount.[10] An undercount occurs when the census misses a person who should have been included; an overcount occurs when an individual is counted in error. What makes these errors particularly problematic is their differential impact on various subgroups. Minorities, renters, and children, for example, are more likely to be undercounted by the census while more affluent groups, such as people with vacation homes, are more likely to be enumerated more than once. As shown in table 2, the 2010 communications campaign consists of four components: the partnership program, paid advertising, public relations, and an educational program called Census in Schools.

[10]Differential undercount describes subpopulations that are undercounted at a different rate than the total population.

Table 2: 2010 Census Communications Campaign Components

Component	Description
Partnership program	Engages key government and community organizations and gains their commitment to support the census, focusing resources on hard-to-count communities. Among other contributions, partners help recruit census workers, help locate space for Questionnaire Assistance Centers and for testing census job applicants, sponsor community events to promote census participation, and motivate individuals to complete their census forms.
Paid advertising	Uses numerous paid media sources, such as TV, radio, the Internet, and magazines, to encourage census participation, particularly by hard-to-count populations, such as minorities, renters, and linguistically isolated populations.
Public relations	Engages audiences via media activities to create credible, memorable messages.
Census in Schools	Provides schools with lesson plans and teaching materials to support existing curricula so that students can get the message home to parents and guardians that answering the census is important and confidential.

Source: U.S. Census Bureau.

For the 2010 Census, the Bureau has expanded its outreach to partner organizations, which include state and local governments, community groups, and businesses. The Bureau increased partnerships from approximately 140,000 during the 2000 Census to more than 210,000 as of March 2010. The Bureau's partnership program stems from its recognition that without the assistance and support of members of local communities—trusted voices—the message that participating in the census is important and confidential will not reach everyone, particularly those in hard-to-count areas and populations. The Bureau hopes that local people who are trusted by the communities they represent can promote the census and persuade everyone to respond.

The communications campaign's initial budget of $410 million was increased by $220 million in additional funds appropriated by the Recovery Act.[11] As a result, the Bureau was able to greatly expand its communications campaign activities. For example, the Bureau hired about 3,000 partnership staff, over 2,000 more than it originally planned to hire, and increased its paid advertising purchases targeted at specific ethnic or language audiences by more than $33 million (85 percent) over its initial

[11]Pub. L. No. 111-5, div. A, tit. II, 123 Stat. 115, 127. In the conference report accompanying the Act, the conferees stated that "of the amounts provided, up to $250,000,000 shall be for partnership and outreach efforts to minority communities and hard-to-reach populations." H.R. Conf. Rep. No. 116-16 at 417 (2009). According to the Bureau, it plans to use $220 million for expanding the communications campaign and $30 million for expanding its coverage follow-up operation, where census workers follow-up to resolve conflicting information provided on census forms.

plan of about $39 million. The increased funding should enhance the Bureau's capacity to reach out to hard-to-count communities. In all, the Bureau plans to spend about $72 million on paid advertising targeted to specific ethnic or language audiences, which is about $11 million more than the almost $61 million the Bureau plans to spend targeting the general population.

However, even with the additional Recovery Act funds, the Bureau plans to spend less for some components of the 2010 paid media buys than it did for 2000, when compared in constant 2010 dollars. For example, although the total budget for the 2010 paid advertising is $253 million, which is about $12 million (5 percent) more than 2000, the Bureau plans to spend about $133 million of it on the total advertising buy, which is about $27 million (17 percent) less compared to the about $160 million spent in 2000. Table 3 shows the Bureau's 2010 budget for paid media buys by target audience compared to what was spent in 2000.

Table 3: Paid Advertising Buys by Target Audience, 2000 Census vs. 2010 Census

Component	2000 Census (2000 actual expenditures in 2010 constant dollars)	2010 Census (budgeted)
Total buy	$160,406,244	$133,003,094
Mass audience	84,441,528	60,811,800
Ethnic/Language audience	75,964,716	72,191,294
Hispanic	27,535,788	25,496,100
Black (including African and Caribbean)	24,816,618	22,978,350
Asian	14,603,328	13,521,600
Native Hawaiian and Pacific Islanders	214,326	1,100,000
American Indian/Alaska Native	4,088,232	3,785,400
Emerging audiences[a]	2,198,664	2,035,800
Puerto Rico	1,892,484	2,400,000
Island areas	615,276	0
New legacy languages[b]	Not applicable	874,044

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

[a]Emerging audiences includes Polish, Russian, and Arabic speaking populations.

[b]New legacy languages includes Portuguese, German, Italian, Greek, French, and Yiddish.

In addition, the Bureau's 2010 budget for items other than the actual media buys—research, testing, labor, travel, production, and other overhead costs—outpaced that spent in 2000. As shown in table 4, for 2010 the Bureau budgeted almost $120 million for such overhead costs, while in 2000 the Bureau spent just over $80 million, in constant 2010 dollars. That $120 million is 47 percent of the total paid media budget, while in 2000 overhead costs accounted for about 33 percent of the paid media budget.

Table 4: Paid Advertising Purchases and Overhead 2000 Census vs. 2010 Census (in millions)

	Paid media budget (including overhead)	Overhead	Percentage of overhead vs. paid media budget
2000 Census (actual expenditures in 2010 constant dollars)	$240.6	$80.2	33
2010 Census (budgeted)	252.8	119.8	47

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

Decreased spending on paid advertising and increased spending on overhead costs, in real terms, may seem like a step in the wrong direction for promoting census participation. However, by better targeting paid advertising buys the Bureau expects to reach those who have historically been the hardest to count. For example, the Bureau based its decisions on how to allocate spending across different ethnic and language audiences based on a variety of factors, such as historical response data for an area, prevalence of hard-to-count households in a market, population size, and availability of in-market media, among others. The Bureau also received input from staff in census regional offices, as well as an independent 2010 Census advisory group called the Race and Ethnic Advisory Committee.

Further, the Bureau targeted the paid advertising messages based on market and attitudinal research. For example, the Bureau's attitudinal research identified five mindsets people have about the census, ranging from what Bureau research identified as "leading edge"—those who are highly likely to respond—to the "cynical fifth" who are less likely to participate because they doubt that the census provides tangible benefits. The Bureau used this information to develop messages to motivate each cohort to participate in the census. To target the cynical fifth, for example, the Bureau developed advertising with the message that the census is important to their community.

In addition to the use of TV and radio broadcasts, in 2010, the Bureau is using new methods, such as downloadable podcasts, YouTube videos, and social media networks such as Facebook and Twitter. Further, the Bureau is integrating census messages into programming, talk, and entertainment shows in an attempt to appeal to people in new and more personal ways.

In addition, as shown in table 5, the Bureau has made other noteworthy changes to 2010 paid advertising and partnership program activities, which are aimed at expanding outreach to hard-to-count groups and better monitoring and evaluating campaign effectiveness.

Table 5: Key Differences between 2000 and 2010 Paid Advertising and Partnership Activities

Paid advertising and partnership activities	2000 Census	2010 Census
Campaign development and targeting	Targeted advertisements by segmenting the population into three groups of census participation likelihood, based on measures of civic participation in an area, such as school board involvement.	Advertisements targeted based in part on actual 2000 Census participation rates and attitudinal research.
	Paid media messages developed in 16 languages.	Paid media messages developed in 28 languages.
	No electronic and Web-based communications.	Electronic and Web-based communications available.
	Majority of paid advertising resources targeted to national mass audience.	Majority of paid advertising resources targeted to ethnic/language audiences.
Implementation	Hired about 600 partnership staff.	Hired about 3,000 partnership staff.
	Partnership staff spoke 35 languages.	Partnership staff speak 124 languages.
	No rapid response/media contingency fund for unexpected events.	Established a $7.4 million rapid response/media contingency fund to address unexpected events, such as lower response rates in certain areas.
Monitoring	No real-time metrics to measure effectiveness of paid media and limited real-time tracking of partnership activities.	Established metrics to measure effectiveness of paid media and partnership program, such as real-time tracking of attitudes through national polling and value-added contributions of partner organizations.
	Partnership tracking system cumbersome and not user-friendly.	Revamped partnership tracking system by, among other things, allowing for up-to-date monitoring of partner activity and new Web-based interface.
Evaluation	Evaluation measuring the impact of paid media and partnership program on awareness of the census.	Evaluation of awareness of the census, and controlled experiment measuring the impact of increased paid advertising exposure on mail response.
	No cost benefit analysis.	Cost benefit analysis of paid advertising.

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

In summary, our analysis suggests that the paid advertising and partnership activities, along with the other components of the Bureau's communications campaign, are generally more robust than the Bureau's promotional efforts during the 2000 Census, in that the entire effort is more comprehensive and activities appear to be more data driven and targeted. Moving forward, the key challenge facing the campaign is that it must not only raise awareness of the census, it must also influence participation, a far more difficult task.

In addition to the communications campaign, the Bureau is taking other steps to reach out to the public. Particularly noteworthy is the 2010 Census Web site (http://2010.census.gov/2010census), which describes, among other topics, the purpose of the census, why it is important, and how the Bureau protects the confidentiality of responses. Information on the census is available in dozens of languages. Further, the Web site contains a "Director's Blog" where the head of the Bureau posts his thoughts on the enumeration and responds to topical issues and public concerns. For example, a recent posting explained why, in some cases, there is a difference between the address on the mailings one receives from the Bureau and the physical location of the house. Similar information is provided on the Web site in a list of frequently asked questions (FAQ).

Looking ahead to the 2020 Census, some of the issues in the Director's Blog and FAQs could, to some extent, be handled proactively and more efficiently through the Bureau's household mailings. For example, questions arose as to why the Bureau spent money on an advance mailing telling people their questionnaires would be arriving soon. Although research has shown that advance mailings can help increase the response rate and thus save money, this was not mentioned in the advance letter, and the Director had to discuss it in his blog in order to reduce confusion and criticism. Likewise, some people might have been confused by getting a separate census questionnaire, the American Community Survey, prior to the decennial questionnaire. This too, could have been addressed as part of an advance letter. While not every eventuality can be foreseen, as the Bureau plans for 2020, it will be important for it take stock of the various inquiries and concerns that arose at the time of the 2010 questionnaire mailings, and determine whether any of them could be explained up front as part of the advance letter. Doing so could help improve the public's understanding of the Bureau's approach and help head off issues that could undermine the response rate, the Bureau's credibility, or both.

Second Census Questionnaire Has Potential to Increase Response Rate

The Bureau's strategy to mail a second, or replacement, census questionnaire will be implemented for the first time in 2010 and is an important step toward improving response and decreasing costs. According to Bureau studies, mailing a replacement questionnaire increases overall response from households that do not respond to the initial questionnaire, which could generate significant cost savings by eliminating the need for census workers to obtain those responses via personal visits.

The Bureau plans to mail approximately 30 million replacement questionnaires to all households in census tracts that had the lowest response rates in 2000 Census (known as blanket replacement). Also, the Bureau plans to mail approximately 12 million replacement questionnaires to nonresponding households in other census tracts that had low-to-moderate response rates in 2000 (known as targeted replacement). In order to enhance the effectiveness of the replacement mailing, the Bureau will include a cover letter to distinguish the initial and replacement questionnaires and as an effort to avoid receiving duplicate responses. Replacement questionnaires will be English only, regardless of whether the household will receive a bilingual English/Spanish questionnaire in the initial mailing.[12] According to a Bureau official, mailing a bilingual replacement questionnaire was logistically impractical for 2010, given the limitations of the printing process and the 5-day time frame for the targeted replacement mailing. Thus, in looking forward to the 2020 Census, it will be important for the Bureau to evaluate the possibility of sending bilingual replacement questionnaires to those households that initially received a bilingual questionnaire.

The Bureau plans to mail replacement questionnaires between April 1 and April 10 and develop an initial list of nonresponding households on April 7. Because the Bureau will likely receive replacement questionnaires after April 7, it must be able to effectively remove these late mail returns from the list of nonresponding households, or the NRFU workload. Removing late mail returns is important because it prevents enumerators from visiting households that already returned their census forms, thus reducing NRFU workload and cost as well as respondent burden. As shown in table 6, the Bureau plans to remove late mail returns from the NRFU workload four times using one automated and three manual

[12]The Bureau has identified about 13 million households that will receive a bilingual questionnaire for the 2010 Census.

processes. The Bureau has some experience with the manual process because some local census offices did some testing of late mail removals during the 2000 Census. In addition, they have developed quality assurance procedures for the manual removal process. In the weeks ahead, it will be important for the Bureau to ensure that local census offices follow these procedures so that households are not unnecessarily visited by an enumerator or inadvertently removed from the follow-up workload and missed in the census count.

Table 6: Replacement Mailing and Late Mail Returns Removal Are on a Tight Schedule

Activity	Date
Initial census questionnaires mailed	March 15-17, 2010
Census Day	April 1, 2010
Blanket replacement questionnaires mailed	April 1-3, 2010
Targeted replacement questionnaires mailed	April 6-10, 2010
NRFU workload created	April 7, 2010
Automated removal of late mail returns	April 21, 2010
First manual removal of late mail returns (even-numbered assignment areas)	April 24-25, 2010
Second manual removal of late mail returns (odd-numbered assignment areas)	May 1-2, 2010
Third manual removal of late mail returns	June 2010[a]

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

[a]The third clerical removal occurs when 95 percent of the work in a local census office is completed and the remaining assignments are brought in to redistribute.

The Bureau Will Employ Special Operations and Programs to Help Enumerate Certain Hard-to-Count Populations

The Bureau has historically experienced challenges in enumerating hard-to-count populations, which has contributed to the undercount in previous decennials. Those at risk of being missed by the census include people living in nonconventional dwellings, such as cars and boats, as well as those living in large group households and converted basements or attics. People commonly referred to as "homeless" are also at risk of being missed.

To help ensure that these individuals are counted, the Bureau plans to employ several initiatives. For example, Service Based Enumeration (SBE) is designed to count people who lack permanent shelter at soup kitchens, regularly scheduled mobile food vans, and other locations where they receive services. This operation, along with a count of people living outdoors, is to take place from March 29 to March 31, 2010.

Moreover, the Bureau's Be Counted program is designed to reach those who may not have received a census questionnaire, including people who do not have a usual residence, such as transients, migrants, and seasonal farm workers. The program makes questionnaires available at community centers, libraries, places of worship, and other public locations throughout the country. The questionnaires are typically available in six different languages, with assistance guides in 59 languages, as well as Braille and large-print English guides. The Bureau has also set up staffed Questionnaire Assistance Centers (QAC), at which people can ask questions and obtain guidance on filling out their questionnaires.

According to the Bureau, it plans to establish 30,000 QAC sites that will also have Be Counted forms, as well as 10,000 stand alone Be Counted locations.[13] To determine where to locate the Be Counted and QAC sites, the Bureau used demographic information and worked with local partnership specialists who used their knowledge of the area to help ensure they were placed in areas with large hard-to-count populations. The program is scheduled to run from March 19 to April 19, 2010.

Although these efforts have the potential to produce a more complete and accurate count, during the 2000 Census, as we noted in our prior work, such efforts experienced various implementation issues.[14] Table 7 describes some of those issues, and the steps the Bureau says it has taken to address them for 2010.

[13]The 10,000 Be Counted Centers will only provide the questionnaires. There will not be staff there to provide questionnaire assistance, assistance guides, or translated forms.

[14]GAO, *2000 Census: Progress Report on the Mail Response Rate and Key Operations*, GAO/T-GGD/AIMD-00-136 (Washington, D.C.: Apr. 5, 2000).

Table 7: Challenges Identified in 2000 and How the Bureau Addressed Them

Issue	Challenges GAO identified in 2000	Bureau's response to resolve issues for 2010
Inadequate materials and supplies	Enumerators said that they did not have a sufficient supply of questionnaires and training materials as they were preparing to conduct the SBE effort.	Enumerators will use one type of questionnaire for SBE enumeration, as opposed to the three different types used in 2000. The Bureau believes this approach should minimize confusion and the amount of time required to sort and package materials.
Inadequate training	There was inadequate training for census enumerators because of training materials arriving late; for example, training materials, including a video of a mock soup kitchen visit, arrived too late at one census office, so it was not used to train the enumerators before they started SBE.	The Bureau has consolidated SBE and Group Quarters Enumeration (GQE) training, since SBE is a segment of its GQE effort. Unlike in 2000, the training was not uniform and consistent across the country for each SBE operation, which also affected the timely delivery of training materials.
Lack of advance planning	Lack of advance planning resulted in enumerators showing up at facilities at inappropriate times or bringing too many personnel, which can be intimidating to homeless people.	Through its group quarters advance visit operation, the Bureau documented issues that could affect SBE enumeration operations and estimated the number of people needed to enumerate each facility. Where needed, the Bureau will also send cultural advocates from the community to help alleviate cultural barriers, because local knowledge is critical at these particular sites.

Source: GAO.

In 2000, we reported on limitations that hampered the effectiveness of the Be Counted and QAC sites.[15] They included the following:

- the Bureau was not always satisfied with site selections that local partners proposed,
- a lack of visibility at Be Counted sites,
- inadequate recordkeeping and monitoring, and
- a lack of quality services provided at QACs.

For the 2010 Census, the Bureau hopes to address these issues in part by

- establishing guidelines in selecting Be Counted sites, to ensure consistency among those involved in decision making about site selection;
- having a banner clearly visible to individuals as they walk into a facility that houses a Be Counted site;
- establishing procedures to strengthen recordkeeping activities at Be Counted sites, including an online system that tracks services the QACs provide on a daily basis; and

[15]GAO, *2000 Census: Actions Taken to Improve the Be Counted and Questionnaire Assistance Center Programs*, GAO/GGD-00-47 (Washington, D.C.: Feb. 25, 2000).

- staffing the QACs with trained and paid census staff, compared to 2000 when some QAC staff were volunteers.

The Bureau Has Tailored Operations to Enumerate Hurricane-Affected Areas

The scale of the destruction in areas affected by hurricanes Katrina, Rita, and Ike has made getting a complete and accurate population count in parts of Mississippi, Louisiana, and Texas especially challenging (see fig. 2). Hurricane Katrina alone destroyed or made uninhabitable an estimated 300,000 homes. As we have previously testified,[16] the Bureau, partly in response to recommendations made in our June 2007 report,[17] developed supplemental training materials for natural disaster areas to help census address listers, when developing the census address list, identify addresses where people are, or may be, living when census questionnaires are distributed. For example, the materials noted the various situations that address listers might encounter, such as people living in trailers, homes marked for demolition, converted buses and recreational vehicles, and nonresidential space, such as storage areas above restaurants. The training materials also described the clues that could alert address listers to the presence of nontraditional places where people are living and provided a script they should follow when interviewing residents on the possible presence of hidden housing units.

[16]GAO, *2010 Census: Efforts to Build an Accurate Address List Are Making Progress, but Face Software and Other Challenges*, GAO-10-140T (Washington, D.C.: Oct. 21, 2009).

[17]GAO, *2010 Census: Census Bureau Has Improved the Local Update of Census Addresses Program, but Challenges Remain*, GAO-07-736 (Washington, D.C.: June 14, 2007).

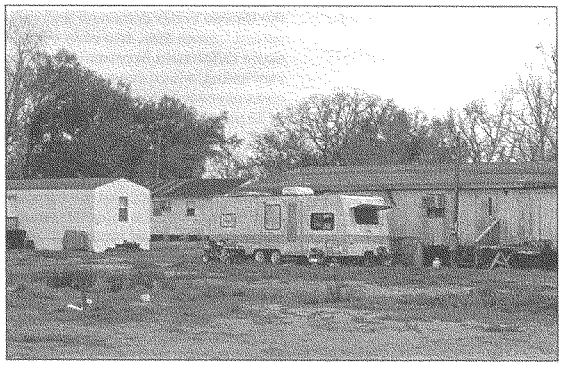
Figure 2: Locating and Counting People Displaced by Storms Presents a Challenge Because Occupied Housing Units Could Be Hard to Identify

Source: GAO.

To ensure a quality count in the hurricane-affected areas, the Bureau is hand delivering an estimated 1.2 million census questionnaires in these areas through the Update Leave operation, where census workers update addresses and provide a mailback census questionnaire to each living quarters in their assigned areas. The Bureau began delivering questionnaires on March 1, 2010, to housing units that appear inhabitable in much of southeast Louisiana, south Mississippi, and Texas, even if they do not appear on the Bureau's address list. Occupants are being asked to complete and return the questionnaire by mail. Census workers are also identifying modifications for the Bureau's address list, including additions, deletions, corrections, and spotting duplicate information. The Update Leave operation is scheduled to last 25 days, and as of March 22, 2010, the Bureau had completed 67 percent of the workload.

Our observations in the New Orleans area, while not generalizable to other parts of the country, identified some of the challenges that census workers experience in the field. Some of those challenges include dogs and other safety concerns, long distances traveled between addresses, and the remains of housing units that were left uninhabitable by Hurricane Katrina at the same locations as occupied housing units (see fig. 3). These types of challenges could drive up costs because they slow productivity, or might affect accuracy because they make it difficult to determine habitability.

Figure 3: Trailers Made Uninhabitable by Hurricanes Located on Same Lots as Occupied Trailers



Source: GAO.

By hand delivering questionnaires, the Bureau hopes to ensure that housing units that may have been missed will receive and return questionnaires, ultimately improving the accuracy of the count. Finally, the Bureau stated that it must count people where they are living on Census Day and emphasized that if a housing unit gets rebuilt and people move back before Census Day, then that is where those people will be counted. However, if they are living someplace else, then they should be counted where they are living on Census Day.

The Bureau Has Revised Its Cost Estimate for Nonresponse Follow-up but Needs to Complete Additional Updates as Planned

In 2008, we reported that the Bureau had not carried out the necessary analyses to demonstrate that the then life-cycle cost estimate of about $11.5 billion for the 2010 Census was credible, and we recommended that the Bureau better document and update the estimate, to which it generally agreed.[18] Since then, two early census field operations have experienced major differences between their estimated and actual costs. For address canvassing, where census workers verify address lists and maps, actual costs exceeded the Bureau's initial estimate of $356 million by $89 million, or 25 percent. In contrast, for group quarters validation, where census workers verify addresses of group housing, actual costs were below the Bureau's estimate of $71 million by about $29 million, or 41 percent.[19]

Because of cost overruns during address canvassing, as well as concerns over the increased number of vacant units due to foreclosures, the Bureau has implemented our recommendation and reexamined and updated the assumptions and other data used to support the cost estimate for NRFU, the most costly and labor-intensive of all census field operations. The Bureau recently provided us with the results from that reexamination. Although we have not fully assessed the Bureau's analysis, our preliminary review shows that the Bureau provided a range of possible NRFU cost estimates, with $2.3 billion being the midpoint. The amount budgeted for NRFU is $2.7 billion. In assessing the estimate, the Bureau considered a number of cost drivers. For example, the Bureau reviewed (1) fieldwork assumptions—such as miles driven per case, pay rates, hours worked per week, and attrition—which the Bureau updated based on actual 2000 Census data, national and field tests, and address canvassing results; (2) factors affecting response rate and hence NRFU workload, such as the national trend in survey response, use of a bilingual questionnaire and

[18]See GAO, *2010 Census: Census Bureau Should Take Action to Improve the Credibility and Accuracy of Its Cost Estimate for the Decennial Census*, GAO-08-554 (Washington, D.C.: June 16, 2008). In GAO-08-554, we reported that the Bureau had not performed sensitivity analysis (examining each cost estimate assumption or factor independently, while holding all others constant) or uncertainty analysis (capturing the cumulative effect of risks, which provides a level of confidence for the estimate), and had not obtained an independent cost estimate. As noted in GAO's *Cost Estimating and Assessment Guide*, these steps provide a basis for determining whether a cost estimate is credible and are key best practices for cost estimation. See GAO, *GAO Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Capital Program Costs*, GAO-09-3SP (Washington, D.C.: March 2009).

[19]In a preliminary assessment, the Bureau attributed cost overruns in address canvassing to increased initial workload, underestimated quality control workload, and the need to train additional staff. The Bureau has not yet provided a cost assessment for group quarters validation.

replacement mailing for 2010, and the vacancy rate; and (3) enumerator productivity rates, which are based on regional managers' concerns over enumerating vacant units and non-English-speaking households. Further, in its analysis, the Bureau cited holding pay rates for NRFU temporary staff at 2009 levels, rather than increasing rates for 2010, as one of the reasons for the reduction in NRFU costs.

According to the Bureau, two cost drivers—workload, based on the mail response rate, and productivity—are uncertain and could have a significant effect on the ultimate cost of NRFU. For example, the Bureau states that if the response rate decreases by 2 percentage points due to extreme circumstances, such as an immigration backlash, costs could increase by $170 million. Likewise, if PBOCS continues to experience performance problems causing 2 weeks of lost productivity, the Bureau says it would need to hire and train more staff to complete NRFU in order to deliver the apportionment counts to the President by December 31, 2010, which, according to the Bureau, could increase costs by about $138 million.

As we previously stated, revising cost estimates with updated data is an important best practice for cost estimation. However, the Bureau's analyses of cost are not complete. While the Bureau has finalized its reexamination of NRFU cost, it continues to update the costs for other NRFU-related operations. These operations include the NRFU Reinterview, a quality assurance procedure designed to ensure that field procedures were followed and to identify census workers who intentionally or unintentionally produced data errors. It also includes the Vacancy/Delete Check operation, which is a follow-up to NRFU and is designed to verify the status of addresses classified as vacant or addresses determined to be nonexistent (deletes) during NRFU, as well as cases added since the NRFU workload was initially identified. According to the Bureau, emerging information about the Vacancy/Delete Check operation suggests that the workload may be much higher than originally expected and could increase costs from $345 million to $482 million—by almost $137 million, or 40 percent. The Bureau said that it will update the cost estimates of both these operations once additional information becomes available.

A reliable cost estimate is critical to the success of any program because it provides the basis for informed investment decision making, realistic budget formulation, meaningful progress measurement, proactive course correction when warranted, and accountability for results.

Concluding Observations

Mr. Chairman, with a week remaining until Census Day, the Bureau's readiness for the headcount is mixed. On the one hand, with data collection already under way, the ability of key IT systems to function under full operational loads has not yet been demonstrated. The issues facing these systems need to be resolved, and with little time remaining, additional testing must take place. Likewise, questions remain regarding the ultimate cost of the 2010 Census, as the Bureau continues to analyze the cost of NRFU-related operations.

On the other hand, certain operations, such as the communications campaign and efforts to enumerate group quarters, generally appear to be on track and more robust compared to similar efforts for the 2000 Census, better positioning the Bureau for a complete and accurate headcount. In the coming weeks and months, we will continue to monitor the Bureau's progress in addressing these issues, as well as the implementation of the census as a whole, on behalf of the subcommittee.

Mr. Chairman, this concludes my statement. I would be happy to respond to any questions that you or other members of the subcommittee may have at this time.

Contacts and Acknowledgments

If you have any questions on matters discussed in this statement, please contact Robert Goldenkoff at (202) 512-2757 or goldenkoffr@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. Key contributors to this testimony include Peter Beck, David Bobruff, Clayton Brisson, Benjamin Crawford, Dewi Djunaidy, Vijay D'Souza, Elizabeth Fan, Ronald Fecso, Richard Hung, Kirsten Lauber, Andrea Levine, Signora May, Lisa Pearson, David Powner, Stacy Spence, Jonathan Ticehurst, Cheri Truett, and Timothy Wexler.

Related GAO Products

2010 Census: Operational Changes Made for 2010 Position the U.S. Census Bureau to More Accurately Classify and Identify Group Quarters. GAO-10-452T. Washington, D.C.: February 22, 2010.

2010 Census: Census Bureau Has Made Progress on Schedule and Operational Control Tools, but Needs to Prioritize Remaining System Requirements. GAO-10-59. Washington, D.C.: November 13, 2009.

2010 Census: Efforts to Build an Accurate Address List Are Making Progress, but Face Software and Other Challenges. GAO-10-140T. Washington, D.C.: October 21, 2009.

2010 Census: Census Bureau Continues to Make Progress in Mitigating Risks to a Successful Enumeration, but Still Faces Various Challenges. GAO-10-132T. Washington, D.C.: October 7, 2009.

2010 Census: Communications Campaign Has Potential to Boost Participation. GAO-09-525T. Washington, D.C.: March 23, 2009.

2010 Census: Fundamental Building Blocks of a Successful Enumeration Face Challenges. GAO-09-430T. Washington, D.C.: March 5, 2009.

Information Technology: Census Bureau Testing of 2010 Decennial Systems Can Be Strengthened. GAO-09-262. Washington, D.C.: March 5, 2009.

2010 Census: The Bureau's Plans for Reducing the Undercount Show Promise, but Key Uncertainties Remain. GAO-08-1167T. Washington, D.C.: September 23, 2008.

2010 Census: Census Bureau's Decision to Continue with Handheld Computers for Address Canvassing Makes Planning and Testing Critical. GAO-08-936. Washington, D.C.: July 31, 2008.

2010 Census: Census Bureau Should Take Action to Improve the Credibility and Accuracy of Its Cost Estimate for the Decennial Census. GAO-08-554. Washington, D.C.: June 16, 2008.

2010 Census: Census at Critical Juncture for Implementing Risk Reduction Strategies. GAO-08-659T. Washington, D.C.: April 9, 2008.

Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems. GAO-08-79. Washington, D.C.: October 5, 2007.

2010 Census: Basic Design Has Potential, but Remaining Challenges Need Prompt Resolution. GAO-05-9. Washington, D.C.: January 12, 2005.

GAO's Mission	The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.
Obtaining Copies of GAO Reports and Testimony	The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday afternoon, GAO posts on its Web site newly released reports, testimony, and correspondence. To have GAO e-mail you a list of newly posted products, go to www.gao.gov and select "E-mail Updates."
Order by Phone	The price of each GAO publication reflects GAO's actual cost of production and distribution and depends on the number of pages in the publication and whether the publication is printed in color or black and white. Pricing and ordering information is posted on GAO's Web site, http://www.gao.gov/ordering.htm. Place orders by calling (202) 512-6000, toll free (866) 801-7077, or TDD (202) 512-2537. Orders may be paid for using American Express, Discover Card, MasterCard, Visa, check, or money order. Call for additional information.
To Report Fraud, Waste, and Abuse in Federal Programs	Contact: Web site: www.gao.gov/fraudnet/fraudnet.htm E-mail: fraudnet@gao.gov Automated answering system: (800) 424-5454 or (202) 512-7470
Congressional Relations	Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400 U.S. Government Accountability Office, 441 G Street NW, Room 7125 Washington, DC 20548
Public Affairs	Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800 U.S. Government Accountability Office, 441 G Street NW, Room 7149 Washington, DC 20548

Please Print on Recycled Paper

Mr. CLAY. Ms. Gordon, you're up for 5 minutes.

STATEMENT OF JUDITH J. GORDON

Ms. GORDON. Thank you.

Chairman Clay, Ranking Member McHenry, and members of the subcommittee, we are pleased to be here today to share our perspectives on the Census Bureau's readiness for this year's decennial count. As my colleagues on the panel have noted, the census is already in high gear, with more than 100 million residents receiving Census forms last week. However, key information technology systems continue to experience performance and functionality shortfalls, and these systems can affect the ultimate schedule, cost, and success of the census.

My statement today will cover three areas: first, the systems issues and their risk to nonresponse followup [NRFU]; second, the importance of monitoring NRFU costs; and third, some initial observations from our field work.

Critical to the success of NRFU is the Paper-Based Operations Control System [PBOCS]. This system is essential to handling assignments to enumerators, tracking questionnaires and reporting on the status of operations. PBOCS development has been compressed to meet the schedule. The inevitable impact of this "just in time" approach is that certain errors are not being found until the system is in actual operation, and not all capabilities are implemented.

PBOCS has suffered from slow performance and continues to experience complete system outages. An outage earlier this week lasted an entire day. A similar outage during the large NRFU operation would be particularly serious.

The Decennial Applicant, Personnel and Payroll System [DAPPS], has experienced similar performance limitations and operational impacts. DAPPS is critical to recruiting, managing, and paying the enormous temporary Census work force.

To allow for installation and testing of improvements, local Census office systems have been shut down at night and on weekends. This prevents Census from adding more shifts to catch up on work that has fallen behind schedule. Census engineers and operational managers are aggressively attacking the system issues. Nevertheless, Census will have to rely on workarounds to compensate for system limitations. Workarounds must be fully tested and clearly explained to minimize further disruptions.

Turning to cost and cost containment, it will be especially important for Census to monitor and control NRFU costs. Address canvassing went 25 percent over its budget, largely due to overspending on wages and mileage reimbursements to temporary address listers. NRFU is much bigger, so any cost overruns will be much more expensive.

The ability to produce valid budget estimates is essential to cost containment. Wide budget variances among local Census offices in address canvassing, from less than 1 percent to over 800 percent, indicate significant weaknesses in the Bureau's budget estimation capability and uncertainty in the decennial cost.

Finally, I will briefly mention two major challenges found in our initial observations in the field during the Update/Leave operation.

First, our staff saw firsthand how the slow performance and lack of systems reliability are affecting efficiency in local Census offices. We observed work getting interrupted, data having to be entered into the system more than once, and completion of tasks being delayed.

Second, we identified a few areas in which it appears that maps were not updated from address canvassing. If widespread, this would be a significant problem. We are working with the Bureau to determine both the extent and reasons for these map errors.

In summary, Mr. Chairman, although much of the Bureau's plan is on track, IT problems place the efficiency and accuracy of nonresponse followup at risk, and final decennial costs remain uncertain. While our testimony today discusses serious IT system challenges, we are mindful of the extraordinary efforts being made by a very dedicated Census staff to achieve a successful outcome.

This concludes my statement, and I would be happy to answer any questions that you or any other members of the subcommittee may have at this time.

Mr. CLAY. Thank you, Ms. Gordon.

[The prepared statement of Ms. Gordon follows:]

Testimony
of

Judith J. Gordon

Associate Deputy Inspector General
U.S. Department of Commerce

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

Thursday, March 25, 2010
2154 Rayburn HOB
2:00 p.m.

The 2010 Census: An Assessment of the Census Bureau's Preparedness

Chairman Clay, Ranking Member McHenry, and Members of the Subcommittee:

Thank you for inviting us to testify today on the Census Bureau's readiness for this year's decennial count. More than 100 million census forms were mailed to addresses across the country last week, asking that they be filled out by residents and returned by Census Day, April 1—one week from today.

Last month we released our third *Quarterly Report to Congress*[1] on the status of the 2010 Decennial Census, covering October through December of last year. That report discussed our findings in the areas of schedule, cost, and risk management. Today, I would like to focus on an issue that affects all of these components: the information systems that are integral to a successful count.

With a life-cycle cost estimate now at $14.7 billion, the 2010 Census is a massive undertaking made up of many moving parts. The bureau must integrate 44 separate operations (with a total of some 9,400 program- and project-level activities). Group quarters enumeration begins in less than a week, and the start of the largest operation, nonresponse follow-up (NRFU), is just over 5 weeks away.

[1] *2010 Census: Quarterly Report to Congress*, Report OIG (Office of Inspector General)-19791-3, February 2010. OIG reports are available on our Web site: www.oig.doc.gov.

Now estimated to cost $2.3 billion, NRFU is the most expensive operation of the decennial, requiring census takers to visit every household that does not return a form and record answers to the form's questions.

Temporary bureau management staff must run 494 local offices and manage over 600,000 temporary workers, while recruiting substantially more. Much of the Census Bureau's plan is on track, but the success of NRFU—which is critical—hinges on how effectively Census controls the enormous NRFU workload and workforce. As I will discuss at length, it must do so using a Paper-Based Operations Control System (PBOCS) with less functionality than planned and currently experiencing significant performance problems. PBOCS is essential for efficiently making assignments to enumerators, tracking enumeration forms, and reporting on the status of operations. And Census must recruit, hire, and pay its massive temporary workforce with a Decennial Applicant, Personnel, and Payroll System (DAPPS) also experiencing persistent performance limitations.

While my testimony identifies serious issues currently faced by the Census Bureau, we are mindful of the unparalleled challenge of the decennial and the extraordinary efforts being made by bureau staff to achieve a successful outcome. Nevertheless, NRFU efficiency and accuracy are at risk—because of PBOCS and DAPPS limitations—and final decennial costs remain uncertain.

INFORMATION TECHNOLOGY SYSTEMS ARE BEING DEVELOPED QUICKLY AND EXPERIENCING SERIOUS TECHNICAL PROBLEMS, LEADING TO PERFORMANCE ISSUES THAT PLACE CENSUS SCHEDULE AT RISK

PBOCS is essential to managing data collection and quality control for ten discrete enumeration operations, including the large, door-to-door NRFU. This system is needed, for example, to make work assignments to enumerators, to confirm that completed questionnaires have been returned to the office, and to ensure that workload completion rates are on track.

As shown in Table 1, PBOCS is being deployed in phases, prior to the start of each field operation it is to support. So far, it has been deployed for seven of ten operations. Yet system development and testing have fallen substantially behind schedule, resulting in a 3-week delay in deploying PBOCS for NRFU, now scheduled for April 12. In addition, staff in local Census offices are encountering technical problems in support of early field operations. And Census has encountered major hardware and software issues affecting system performance that have prompted Census officials to consult executives and senior

technical troubleshooters from the companies that provide PBOCS hardware and software components. Workarounds for NRFU are currently being planned to overcome performance problems.

Table 1. PBOCS Deployment and Field Operations Schedule as of March 19, 2010

Operation	*Operation Start*	*Operation End*	*Deployment*
Remote Alaska Enumeration	***January 25***	***April 30***	***January 19***
Group Quarters Advance Visit	***February 1***	***March 19***	
Update/Leave	***March 1***	***March 26***	
Enumeration of Transitory Locations	***March 19***	***April 12***	***February 22***
Remote Update/Enumerate	***March 22***	***May 29***	
Update/Enumerate	***March 22***	***May 29***	
Group Quarters Enumeration	***April 1***	***May 21***	***March 8***
Nonresponse Follow-up (NRFU)	May 1	July 10	April 12[a]
Vacant/Delete Check	July 24	August 25	June 4
Field Verification	August 6	September 3	July 13

[a]Represents a 3-week delay from March 22

Source: U.S. Census Bureau 2010 data

Start dates for Census field operations are fixed: If PBOCS is not ready or if additional actions are not taken, field operations could be adversely affected, resulting in increased cost and reduced accuracy of the population count.

The problems surrounding PBOCS are not new; we reported on these challenges in prior testimony and in our last two quarterly reports to the Congress. It is clear that the Census Bureau Director and his staff are taking extensive corrective actions. But the risk remains.

With population counts for apportionment due to the President by December 31, 2010, the decennial census is the epitome of a schedule-driven program—with all of its attendant risks and consequences. Issues in developing decennial systems have included rushed and incomplete requirements specifications; cut corners in program design, development, and testing; massive cost growth; and increased operational and quality risks.

As our last quarterly report details, the development and testing of PBOCS is being compressed to meet the schedule, partially due to a change in plans from

using handheld computers to the use of paper for collecting respondent data. However, the inevitable impact of this "just-in-time" approach is that errors are not being found until the system is used in actual operations or functionality is not complete. An example is completion of key PBOCS interfaces with other decennial systems: Census headquarters and regional offices cannot use the Cost and Progress system to monitor the progress of operations at the national, regional, and local office levels because the interface with PBOCS has not been completed. Fixes are currently being made to address problems identified in testing the PBOCS interface with the quality-control system for the update/enumerate[2] operation and NRFU, called the Matching and Review Coding System.

System Problems Already Affecting Operations

Local Census office staff are experiencing PBOCS reliability problems in early enumeration operations. Our analysis of help desk reports indicates that users have experienced difficulties with assigning work to enumerators, updating completed work, and generating reports used to track field work progress, performance, and accuracy. Further, PBOCS has experienced slow performance during office hours, and continues to experience complete system outages. An outage earlier this week lasted an entire day. Similar outages during NRFU would be particularly serious.

In addition, PBOCS performance does not yet meet the operational needs of NRFU, which is scheduled to start May 1—just 37 days from today. The number of simultaneous users permitted to access PBOCS in each local Census office is only seven—half the number that Census expects will be needed for NRFU. A Census team of engineers and operational managers is aggressively attacking decennial system performance issues: the team meets daily and is working around the clock to monitor and to plan and implement improvements.

This team's major strategy for improving PBOCS performance is to add about $6 million in hardware to double the computing capacity of the operational and test environments, along with building a new backup environment. Up to now, work on system performance had to compete with system testing for needed computing resources. Census expects the new hardware to be in place by April 5.

The team has focused on minimizing risk to existing operations while making changes—both hardware and software—to improve PBOCS performance. This approach will probably have to continue after the installation of the new hardware. Despite the team's best efforts, as operations are increasing in scale, local Census office staff have been reporting that nightly and weekend downtimes needed to

[2]See Appendix for a description of this operation.

correct bugs, install additional hardware, and test and deploy new functionality are affecting operations because staff are unable to run additional shifts needed to catch up on work that is behind schedule. If this were to continue into NRFU, it would severely increase the risk to completing the operation on schedule, due to NRFU's massive scale.

Census has also been developing major workarounds to address PBOCS performance issues. Some of the planned workarounds include using other decennial systems to print materials needed by local Census offices and prioritizing the work of these offices. Printing of materials needed for enumeration in general and for NRFU in particular is a big concern. With NRFU, the demands of printing materials for 47 million housing units must be met in a very short period of time. Workarounds are currently being developed to prepare electronic copies of materials at headquarters in advance so that local Census office staff can retrieve and print them more quickly.

Decennial Applicant, Personnel, and Payroll System (DAPPS) Likewise Suffering Persistent Performance Limitations

DAPPS is also needed to support recruiting, applicant tracking and processing, and personnel and payroll processing for the massive temporary Census workforce. Along with PBOCS, it has suffered ongoing and persistent operational limitations. DAPPS has been affected by numerous outages and poor performance. To help alleviate the heavy demand on this system, Census initiated a procedure to stagger each region's use of the application to minimize the number of concurrent users. Following this change, no outages have been reported, but system performance continues to be slow and hardware resources operate consistently at or near full capacity.

The same specialized team that is tackling PBOCS performance issues has also been monitoring and working on DAPPS. According to the team, it has made all the software changes possible to improve performance; team members see current problems as a result of insufficient hardware resources. Consequently, the team's approach has mirrored its strategy for PBOCS: it has been implementing and testing approximately $5 million-worth of new hardware to replace existing resources. The new hardware more than triples current system capacity. Initial load tests of the new hardware indicate that performance problems will likely be resolved once the hardware is deployed in the operational environment. The new hardware was placed in operation this past Monday.

To summarize, both PBOCS and DAPPS continue to proceed under very difficult conditions. Specifically:

- Systems development for NRFU is behind schedule;
- Critical software errors persist;
- System performance is not meeting operational needs; and
- With operations underway, staff are working to resolve technical and performance issues and deploy new functionality, while struggling to minimize the impact to ongoing field operations.

Accordingly, Census will have to rely upon workarounds for PBOCS—and possibly for DAPPS—in order to complete operations. Workarounds for software errors, performance limitations, and operations falling behind schedule need to be fully developed and test, as well as clearly communicated and coordinated, to ensure that the operational impact of further disruptions caused by PBOCS and DAPPS will be reduced where possible.

CENSUS MUST CLOSELY MONITOR NRFU COSTS GIVEN OVERRUNS AND INEFFICIENCIES FOUND IN THE COMPLETED ADDRESS CANVASSING OPERATION

Wide variances between budgeted and actual costs hinder confidence in the Census Bureau's budgeting and cost containment process for large-scale field operations. Our analysis of address canvassing budget overruns revealed wide disparities in spending among local Census offices. Census Bureau headquarters formulated a total budget of $356 million for address canvassing in 2009. This amount was allocated among the 151 early local Census offices based on the type of area—such as urban or rural—covered by each office. Following the operation, Census reported that address canvassing overspent its budget by $88 million (25 percent). The two major cost drivers of the operation were wages and reimbursement for miles driven by temporary employees (listers) to assignment areas. For production, one-third of the offices exceeded their wage budgets and one-half exceeded their mileage budgets. For the quality control operation, 82 percent of the offices exceeded both their wage and mileage budgets.

This review of address canvassing wage and travel data revealed several inefficiencies that Census managers should be aware of in managing 2010 field operations, chief among them an excessive number of miles claimed by the temporary employees, and training costs. Analyzing bureau data, we found that 604 employees spent the majority of their time driving instead of conducting field

work; of those, 23 spent *all* of their time driving.[3] This analysis suggests that some employees may have over-reported the number of miles driven. While the number of employees with questionable reimbursements is very small compared with the overall universe of 140,000 employees involved in this operation, the potential exists for this problem to be compounded because upcoming fieldwork operations will involve significantly more temporary employees than did address canvassing. Census Bureau managers should monitor mileage reimbursements carefully during upcoming enumeration operations, and verify the validity of those reimbursement claims that appear excessive before they are paid.

The Census Bureau spent a great deal of money on training for the amount of work it received. For example, over 10,000 employees earned over $300 apiece for attending training but performed no work for Census; an additional 5,000 employees received the same money for attending training and worked only a single day—or less. It may be that some employees, after being trained, decided that they did not want to do this kind of work; others may have been deemed unfit. Nevertheless, the costs were substantial—not only what was paid directly to employees, but the costs of the training as well.

Census expenses and projections are a moving target, as might be expected of an operation whose many parts are already progressing on several fronts. Such inefficiencies as we found in the areas of wage, travel, and training costs are the kind for which Census should develop effective internal controls and ensure that managers scrupulously follow these controls in future operations.

COST CONTAINMENT—ESSENTIAL FOR FIELD OPERATIONS—REQUIRES STRONG BUDGET ESTIMATION CAPABILITY

The ability to produce valid budget estimates is essential for cost containment. The 25-percent cost overrun for address canvassing indicates that either the budget for this operation was unrealistically low or that cost containment for the operation was poorly managed. In contrast, Census spent only about 59 percent of its group quarters validation[4] budget, somewhat more than $41 million out of a field budget of over $70 million. Inaccuracies of this magnitude in estimated budgets—high or low—combined with wide variances among early local Census offices in address canvassing costs, indicate significant weaknesses in the bureau's budget estimation capabilities.

---

[3]We analyzed the number of miles reported driven per hour compared with the total number of hours worked by address canvassing employees.

[4]The group quarters validation operation is aimed at verifying information from each one of the potential group quarters nationwide.

The important lesson for the Census Bureau now is that with NRFU set to begin very soon—with three times the number of employees and offices than were involved with address canvassing—the bureau's revised budget estimate needs to be as accurate as possible so that the operation's final cost does not exceed the amount budgeted, which includes a 15-percent contingency. With $7.4 billion in funding from FY 2009, FY 2010, and the American Recovery and Reinvestment Act to be expended for the decennial in FY 2010, poor estimating will not be an acceptable justification for any later request for supplemental funding.

Under the Census Bureau Director's leadership, Census has, in fact, reexamined its NRFU budget. Its recently-provided estimate totals $2.33 billion. However, it continues to finalize revisions to this estimate, with the operation scheduled to begin May 1. This is $410 million less than the bureau's earlier estimate, but it does not factor in the productivity reductions that may result from a PBOCS with significantly reduced capabilities and performance and the problematic performance of DAPPS.

In addition, any reductions that may be achieved in NRFU are likely to be partially offset by an estimated increase of $137 million for the vacant/delete check operation. The vacant/delete check workload, originally estimated at 8 million cases, has now been revised to 14.5 million cases. This results in an estimated cost increase from $345 million to $482 million.

The bureau has identified two components as the areas of greatest concern due to their high level of uncertainty and high impact on cost: workload (a function of the level of mail response) and staff productivity. To these we would add the unknown impact on operations of a PBOCS with reduced functionality and performance.

THE CENSUS BUREAU IS MAKING PROGRESS WITH ITS RISK REDUCTION ACTIVITIES, BUT CONTINGENCY PLANS REMAIN UNFINISHED

Census's risk management plan establishes processes and procedures for monitoring decennial risks and identifies staff responsible for implementing them. Each program-level risk—i.e., one that may affect overall program cost, schedule, and technical and compliance objectives—must have a plan that defines mitigation strategies and specific time frames, along with staff to implement them. The risk management plan also requires contingency plans for addressing certain risks triggered by a missed date or specific event, and these plans are to be completed well in advance of the expected trigger. The bureau's risk management program represents a significant improvement over the 2000 decennial, which lacked a formal risk management process.

While the bureau is making progress with its risk reduction activities, contingency planning remain unfinished, and contingencies for PBOCS are under development.

Census's Risk Review Board (RRB) continues to oversee risk management activities and update its "risk register." As of March 19, the register contained 24 program-level risks, each rated high (likely), medium (somewhat likely), or low (unlikely), and has undergone a few changes since the beginning of this year. The distribution of risk ratings currently stands at 10 high, 10 medium, and 4 low. In our February quarterly report, we noted that the risk register at the end of the period contained 25 risks—8 high, 14 medium, and 3 low. The two new high risks are an inaccurate Puerto Rico address list and a potential national immigration policy backlash.

In addition, the RRB has been completing contingency plans to guide the bureau in addressing problems that might arise should mitigation plans and activities aimed at program risks fail. Progress on contingency planning continued during the last quarter of last year, but time is running short; currently, five of the 12 plans are not yet final.[5] Significant work, then, remains to be completed. This is especially critical in light of the difficulties with PBOCS, so that alternative plans will be ready to be put in motion if needed.

During the period encompassing our last quarterly report, we reviewed four contingency plans that had been completed as of February 16 of this year, and they appeared adequate. The four plans are:

- Information Technology (IT) Security Breach
- Loss of Confidential Data
- Continued Operations of Critical Infrastructure During Disasters
- H1N1 Influenza Affecting Regional Census Centers and Local Census Office Activities

A contingency plan will be triggered if its mitigation activities are no longer effective, prompting the risk to materialize. When a trigger—such as a date or an event—occurs, appropriate Census staff will assess impacts to the decennial schedule and resources, take necessary actions to resolve problems, and monitor

[5]Of the seven that have been completed, we reviewed the four listed above. The other three include (1) a major disaster's effect on population, (2) H1N1 influenza and similar contagious illnesses affecting *non*-regional Census Centers and *non*-local Census Offices activities, and (3) uncertainty of assumptions in cost model.

their effect on operations. For example, if an H1N1 influenza outbreak were to affect a local Census office, managers could hold employee replacement training, limit visitors to the office, and monitor the staff illness rate.

OFFICE OF INSPECTOR GENERAL OVERSIGHT PLAN FOR DECENNIAL OPERATIONS AND SOME INITIAL OBSERVATIONS

The Office of Inspector General (OIG) is continuing to monitor the bureau's progress—on PBOCS, DAPPS, and other key decennial activities. In addition, over the next several months, about 100 members of our staff will be participating in what is for us an unprecedented effort in scope and resource commitment, to go on the road and observe Census workers in action. Such oversight, while Census activities are ongoing, will allow us to immediately observe successes along with any problems that might arise, and notify the bureau without delay.

Our initial observations in the field during the update/leave operation have identified three major challenges:

- Slow and unreliable computer systems,
- Incorrect maps in some locations, and
- Potential shortfalls in identifying outdoor homeless locations by the partnership assistance program.

According to local Census office personnel, the slow performance and lack of reliability of PBOCS and DAPPS is affecting staff efficiency. Although we cannot quantify the impact, we have observed work getting interrupted, data having to be entered into the system more than once, and completion of tasks being delayed. Staff are therefore concerned about their ability to manage their growing workloads and meet their deadlines as Census operations expand—especially during NRFU.

We have identified a few areas in which it appears that maps were not updated from the address canvassing operation. Consequently, enumerators working on update/leave spent significant amounts of time updating maps—work that should have been completed during address canvassing—thereby increasing their total workloads. We identified multiple instances of this at one office, but if widespread, this would be a significant problem. We are working with the bureau to determine both the extent of and reason for these map errors.

Finally, Recovery Act funds increased the number of partnership specialists and created a new partnership assistant position. With these additional positions, the partnership program added a new workload responsibility—identifying locations

and contact information for regularly scheduled mobile food vans and targeted nonsheltered outdoor locations within a local Census office area, for the service-based (homeless) enumeration. Our initial field visits indicate that the partnership program—at least in nonurban areas—did not, in fact, assist with this effort as intended. As a result, the local Census office staff have had to take on the additional workload of identifying outdoor homeless locations requiring enumeration.

The appendix to this statement provides a fuller discussion of our approach to overseeing this year's operations.

Mr. Chairman, this completes my prepared remarks, and I would be happy to respond to questions from you or any other Members of the Subcommittee.

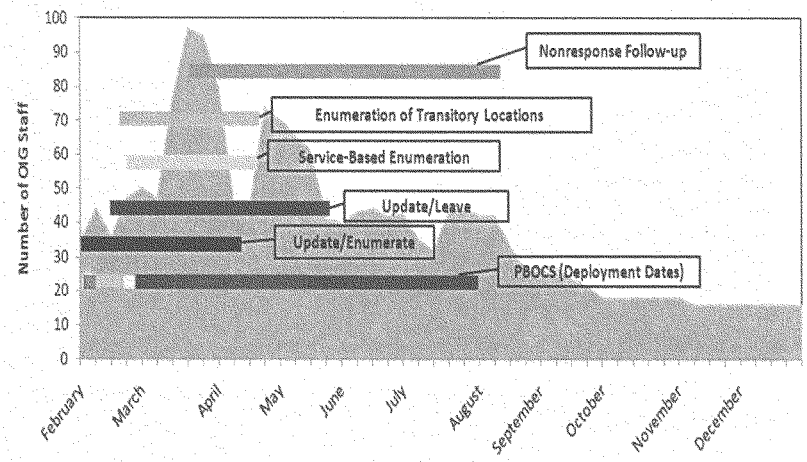
APPENDIX

OFFICE OF INSPECTOR GENERAL
2010 DECENNIAL CENSUS OVERSIGHT PLAN

The Census Bureau has identified 44 decennial operations for 2010. These operations span several years and entail providing support, establishing where to count, collecting and integrating respondent information, providing results, measuring coverage, and performing analysis and research for the 2020 Census. In FY 2010 we anticipate covering aspects of 20 of these operations, including deploying substantial numbers of staff to observe eight Census field operations. This work will also inform our oversight of the 2020 census.

OIG resources devoted to the 2010 Decennial Census over the coming year will involve almost 100 members of our staff at a given point in time. Details of our planned staffing deployment over the course of the calendar year are provided in Figure 1, below. The variability of resource deployment is related to the number and extent of the field operations conducted by Census. During this period, OIG plans to expend approximately 35 full-time-equivalent employees (FTEs) at an estimated cost of about $5.8 million for the review of the decennial census. OIG will oversee Census Bureau field and headquarters management of operations, field enumeration activities, information technology (IT) systems and the security of personally identifiable information, and internal controls over payroll.

Figure 1. OIG Census 2010 Oversight Staffing Plan



APPENDIX

Field Activities

Our oversight of field activities will include deploying staff to selected local Census offices nationwide to observe whether activities are being conducted in accordance with Census procedures (for example, whether the Census questionnaire is being administered properly; whether map and address list updating is being completed correctly, where applicable; etc.) and local Census office practices. We will notify the Census Bureau promptly of any problems needing immediate attention. We will summarize our observations and findings in a final report, to be completed in FY 2011. This capping report will provide our summary assessment of the overall efficacy and efficiency of the 2010 Census enumeration. This and subsequent reports will provide lessons learned to aid in planning for the 2020 Census.

In FY 2009 we observed address canvassing and group quarters validation. During FY 2010 field operations we intend to have a presence in every enumeration activity. In our planning for this major deployment of OIG personnel, we analyzed multiple data sources to ascertain the areas in which the Census Bureau may face its greatest demographic and operational hurdles. The following are six decennial operations that we will be observing:

- *Update/Leave*: In areas in which many homes do not receive mail at a city-style address, enumerators canvass assignment areas to deliver a Census questionnaire to each housing unit. At the same time, they update the address list and maps. This method is also used in selected collection blocks within *mailout/mailback* areas, where mail delivery may be a problem, such as apartment buildings where mail is left in common areas.

- *Update/Enumerate*: Enumerators canvass assignment areas to update residential addresses, including adding living quarters that were not included on original address listing pages, update Census Bureau maps, and complete a questionnaire for each housing unit. This occurs in communities with special enumeration needs and in which many housing units may not have house-number-and-street-name mailing addresses, similar to *update/leave*.

- *Enumeration of Transitory Locations*: Enumerators visit transitory locations, such as campgrounds and hotels, to enumerate their residents.

- *Service-based Enumeration*: This focused, 3-day enumeration provides an opportunity for people living on the street or in shelters to be included in the Census.

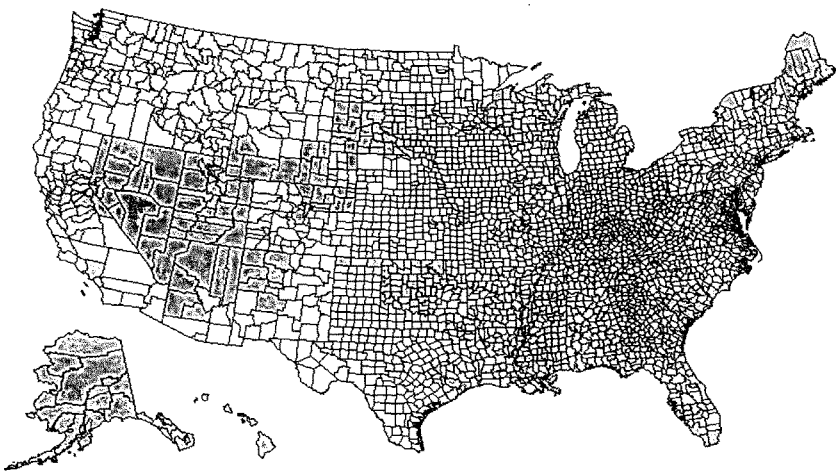
APPENDIX

- *Nonresponse Follow-up (including Vacant/Delete Check)*: Enumerators visit addresses for which the Census Bureau had no questionnaire or telephone response. Enumerators collect information about household residents as of April 1, 2010.

- *Coverage Follow-up*: This telephone operation attempts to resolve erroneous enumerations and omissions.

Our field observations will focus on a judgmental sample of 34 of 151 early local Census offices that supported address canvassing operations. These are split into smaller local Census offices for enumeration activities; our sample equals 113 of 494 local Census offices. The areas highlighted on the following map (Figure 2) indicate the boundaries of local Census offices within our sample. OIG staff will observe Census operations in selected areas within those locations.

Figure 2. Local Census Office Boundaries within Sample to be Observed by OIG Staff



To ensure nationwide coverage, we initially selected at least one early local Census office per Census region. Our selections were based on the bureau's demographic measures of enumeration difficulty, operational factors such as blocks with large populations, and significant socioeconomic changes such as high foreclosure rates or high growth rates. Next, we identified a smaller sample

conveniently located near OIG offices. The remaining selections were included to ensure adequate representation of population density and specific hard-to-count populations. For example, we intentionally included the rural Mississippi Delta and the hurricane-affected Galveston, Texas, areas. We balanced the sample by including several areas that were not considered hard to count. A listing of the early local Census offices in our sample follows:

Anchorage, AK
Flagstaff, AZ
Phoenix Central, AZ
Los Angeles Downtown, CA
Stockton, CA
Lakewood, CO
DC East, DC
Miami East, FL
Sarasota, FL
Atlanta South, GA
Honolulu, HI
Chicago Far North, IL
Chicago Near South, IL
Frederick, MD
Seat Pleasant, MD
Portland, ME
Detroit West, MI
St. Louis City, MO
Jackson, MS
Meridian, MS
Las Vegas, NV
Bronx Southeast, NY
Queens Northwest, NY
Syracuse, NY
Canton, OH
Oklahoma City, OK
Charleston, SC
Rapid City, SD
Houston Central, TX
Salt Lake City, UT
Richmond, VA
Tacoma, WA
Eau Claire, WI
Charleston, WV

Other Reviews

In addition to deploying staff to observe enumeration activities, we will be conducting reviews in the following areas:

- *Evaluating and Monitoring Decennial Systems*: We plan to evaluate key IT decennial systems for development and operational risks that may affect critical decennial operations and the accuracy of the population count. We will assess the paper-based operations control system and management workarounds required to address its anticipated shortcomings, starting with the group quarters advanced visit operation, as well as the Decennial Applicant, Personnel, and Payroll System (DAPPS). Other systems that may be reviewed include the response processing system, the universe control and management system, and the Decennial Response Integration System (DRIS).

- *Safeguarding Decennial Respondent Confidential Data*: We will assess controls to protect the confidentiality, integrity, and availability of electronic decennial respondent information.

- *Census's Ability to Detect/Respond to Cyber Attacks*: We will evaluate the extent and effectiveness of Census's monitoring of its decennial information systems for malicious activity.

- *2010 Enumeration Payroll and Progress Review:* In our ongoing audit of address canvassing payroll for the decennial Census, we are verifying the accuracy and integrity of payroll processing, including a review of supervisory approval, overtime compliance, and time-and-expense reports. The overall purpose of this review will be to monitor the cost and progress of the 2010 Census field operations and verify the accuracy and integrity of the payroll—with emphasis placed on identifying irregular operations, assessing management staffing and deployment decisions, and identifying fraud.

- *Early 2020 Planning*: Planning for the 2020 Census has already started, and we intend to track progress throughout the decade. Weaknesses in the bureau's cost estimating techniques and its failure in planning and managing the acquisition of handheld computers for field data collection were major contributors to the eventual cost overruns and high level of operational risk. A related factor was the misalignment of budgets, schedules, requirements, testing, and acquisitions leading up to the 2010 Census. We will monitor early 2020 planning to identify more cost-effective methods for obtaining a high-quality address file and conducting enumeration, and promote more effective and transparent decennial planning and budgeting.

Mr. CLAY. I want to thank all of the witnesses for their testimony.

Now the committee will proceed to the question-and-answer period, and we will begin with Mr. McHenry, who will be allowed to give an opening statement as well as questions.

Mr. MCHENRY. Well, thank you, Mr. Chairman, and it's—you know, right in keeping with your testimony, I certainly appreciate, Mr. Chairman, your having this hearing today because it is obvious that we still have a lot of questions and issues to resolve even though census day is just less than a week away.

And it is great concerns that I hear from every one of you, significantly different from the Bureau compared to the last testimony we had from Dr. Groves. But I do appreciate you all coming. I know it's very busy right now, both for the IG and for the GAO as well as for the Census Bureau.

But it does seem to me like we're jumping the gun a little bit on this hearing. I think we're going to need to have another hearing and see how the mail is coming in, because we're just days into mail coming back in and determining our response rate. So I do think, with the chairman's leadership, we should be able to do that when Congress comes back.

Most households didn't even receive their 2010 questionnaire until about a week and a half ago. A lot of my constituents are writing and calling about this as well, which is a good sign that people are aware of the census, but I certainly appreciate the chairman's leadership with what's going on and making sure that we have frequent hearings on this matter.

As Dr. Groves has stated, he would like to have an ongoing dialog with us as well.

Mr. CLAY. And, Mr. McHenry, we do intend on holding hearings to look at the mailback response rate and at other functions of the Bureau in their effort.

Mr. MCHENRY. Well, thank you, and I'll get to my questioning now; but you know, we've got some issues here.

Mr. Jackson, you're slightly less positive in the tone that you have about the Bureau's preparedness.

Is the Bureau prepared for the 2010 census?

Mr. JACKSON. Congressman, yes, sir, we are.

I am attempting to be candid, not in any way not optimistic. I am convinced we will have a successful census. As you know, 2 years ago, when we undertook what we call the REAP line, we stated that choosing this path of doing paper-based operations in lieu of continued automation would be somewhat high risk. In general, that's what we're experiencing now. We think we're prepared.

Mr. MCHENRY. Time is short.

So is the Bureau still on track to meet its budget outlook and view for nonresponse followup?

Mr. JACKSON. Yes, sir. We've done a complete budget review of nonresponse followup. We have looked at over 20 line items, and we feel that we are more than prepared to do a successful nonresponse followup at a range of response estimates on time and within the budget we have.

Mr. MCHENRY. Mr. Goldenkoff, is that the view of the Government Accountability Office?

Mr. GOLDENKOFF. From the data that we've seen, certainly the future is uncertain. The Bureau may be able to handle the workload as of today, but things are going to ramp up pretty quickly. And as an example, you heard us mention the situation with the operational control system. Right now, it's at a capacity where it's handling seven simultaneous users per office at a time. It needs to ramp up eventually to 16, and the Bureau is definitely not there yet; but nationwide, right now, it needs to go from 3,000 simultaneous users up to 3,000 during nonresponse followup. From what we've seen, the Bureau still has a lot of work to do.

Mr. MCHENRY. OK. Ms. Gordon, how many folks on the IG staff are working on the census?

Ms. GORDON. Well, our plan is to have about 100 members of our staff working on the census at the peak, and we're ramping up to that in the early operations.

Mr. MCHENRY. How many currently are?

Ms. GORDON. How many currently? I think we have about 20 or so working on it currently.

Mr. MCHENRY. OK. Mr. Jackson, in terms of the Vacant/Delete Check, there has been—would you tell us why there is a change of $137 million, an increase in the cost estimate for this Vacant/Delete Check?

Mr. JACKSON. Yes, sir. Two major components.

One, the number of vacant units, as you might suspect, is higher because of foreclosures and because of the economy than we expected when we did our initial planning, which, as you know, runs about 2 years ahead of when we do the operation.

Also, we have added to Vacant/Delete, and we think this is a positive step. A number of—a workload that consists of housing units that we have identified through the LUCA process that should be included in the census, we have added them to Vacant/Delete so that we can get those included as soon as possible and mail those households forms.

Mr. MCHENRY. What keeps you up at night?

Mr. JACKSON. What keeps me up at night——

Mr. MCHENRY. Professionally, not personally.

Mr. JACKSON. I do—I am managing the two critical systems, that my colleagues have mentioned, daily. And we're making progress——

Mr. MCHENRY. What two systems are those?

Mr. JACKSON. The DAPPS, the payroll system. We've recently—this past weekend, we upgraded that system, and it is running much faster, so DAPPS is kind of receding from my worry list.

The paper-based control system I manage with my colleagues from field division and my CIO, Brian McGrath, who is here today. So we are constantly looking at what we're doing, selecting where we need workarounds so that by April 4th, we will know what system we're taking to the field, and we can test it the final 2 weeks before we go to nonresponse.

Mr. MCHENRY. So that's what keeps you up at night?

Mr. JACKSON. That's what keeps me up, yes.

Mr. MCHENRY. Mr. Goldenkoff, I know you follow the census extensively, and in the Government Accountability Office, obviously that is your job to have these items keep you up at night.

Mr. GOLDENKOFF. Exactly.

Mr. MCHENRY. What are those items that keep you up at night?

Mr. GOLDENKOFF. The operation control system. That is sort of the brains of the census. They can't conduct the field operations without it, and right now, as we see it, there are four issues with it.

One, people. They are being—the people who are working on the system, they're working extremely hard, nights and weekends, but they're under strain. There are just not enough of them to go around, and the ability to train new people is very limited. And it's quite likely that new problems will crop up; and will they be able to handle these new problems and fix the existing ones as demands on the system begin to increase?

There are also hardware and software issues, and all this is running up against a very tight schedule. Nonresponse followup begins at a very fixed date. Other operations begin at very fixed dates, and if the system isn't ready, if it's not able to support these operations, you're going to start seeing schedule slippages and cost increases.

Mr. MCHENRY. How many folks at the GAO are working on the census?

Mr. GOLDENKOFF. Right now, it's about 20.

Mr. MCHENRY. How many will be working on it in another month or two?

Mr. GOLDENKOFF. We'll start to ramp up, too, for field operations.

For example, for nonresponse followup, we have most of our field offices involved, and so we will be on the ground, observing nonresponse followup. Next week, for service-based enumeration, we will have, also, most of our field offices involved in observing service-based enumeration. So we are quite prepared, and also, most notably, it is a very experienced staff, too. Virtually all of our middle and senior managers have experience from the 2000 census.

Mr. MCHENRY. OK. All right.

Well, Chairman Clay, I know there is an effort to get other folks asking questions, but I certainly appreciate your being very candid about this, and I hope that—you know, Mr. Jackson, most of us are—my communities are very interested in making sure the technology is available so that we can monitor the response rate, the mail response rate. I appreciate the widget that we're going to be able to put on our Web site, but we want to be able to do that sooner rather than later so we can follow this.

Thank you so much.

Mr. CLAY. Thank you, Mr. McHenry—and point well taken.

Ms. Chu of California, you're recognized.

Ms. CHU. Yes.

I know this hearing is about the overall preparedness of the census, but I want to talk about glitches that are happening right now, Mr. Jackson.

In my area, there are residents that are complaining because they are living in one city, but they're receiving Census forms that are addressed to another adjoining community. For example, residents in my area who live in Hacienda Heights are getting Census forms that have La Puente listed as the city; and apparently, the

director, Robert Groves, put something on his blog Tuesday morning in which he said: The actual location of your address has been verified for accuracy, and that it was a move by the Bureau to save money, and it streamlines how the forms are sorted and delivered to you by the U.S. Postal Office.

But you can imagine——

Mr. JACKSON. Sure.

Ms. CHU [continuing]. The kind of feeling that people have seeing the address listed incorrectly. And I also heard that what they're saying is that, you know, as far as the bar code, it's correct. So I want to know: Was this discrepancy really intentional?

Mr. JACKSON. Let me kind of explain how this came about.

We—in working with the Postal Service, this is the largest public mailing that has ever occurred, 120 million addresses. The Postal Service, in some zip codes, uses a single city when they have mass mailings. Now, while we knew of this, we did not know exactly what city name the Postal Service would select in each zip code, and we probably underestimated the public reaction because, as you say—and I would agree with you—it certainly is alarming to some residents. There are other zip codes, like the zip code I live in, where it is not unusual for me to get mail labeled Colesville, even though I live in Silver Spring. However, I realize that's not the case for everyone, and we underestimated that.

So we have tried to emphasize that the proper counting and tabulation in a jurisdiction does not depend on the city name, and I think that message is now beginning to get through to some public officials because we're beginning to see those statements.

The proper allocation of a housing unit to its jurisdiction really occurs when we do the physical location determination; and about a year ago, we did an exercise called Address Canvassing, and we used GPS coordinates to make sure the physical housing unit was in the right block in your jurisdiction. So that's what Director Groves means when he says that it will not affect where you're counted.

I would not minimize, however, the concern that the public has—and we've tried through our own media arms, through our partners and through our regional offices—to ensure residents that they will be counted in the right place. We did not anticipate this level of angst, and for that, I apologize. However, it does not have to do with where people will be counted.

Ms. CHU. So this wasn't a move to save money?

Mr. JACKSON. It is a—it's an efficiency move on the part of the U.S. Postal Service, not necessarily the Census Bureau trying to save money. The Postal Service does this for reasons of efficiency and delivery accuracy.

Ms. CHU. So how could we avert this from happening next time? Now it's too late, but——

Mr. JACKSON. Yes. It will not be that complicated now that we know the potential to cause, you know, public furor. I think we will have to have an agreement of some kind with the Postal Service to use only a single city name for a given area, and we have a list of names. It's just that we gave the post office a choice, and we probably need to work through a more mutually agreeable arrangement in 2020.

Ms. CHU. OK. Thank you.

Mr. CLAY. Thank you, Ms. Chu.

The gentleman from Texas, Mr. Cuellar, is recognized for 5 minutes.

Mr. CUELLAR. Thank you very much, Mr. Chairman.

Mr. Jackson and the other witnesses, thank you very much for being here with us.

Mr. Jackson, first of all, I want to thank the Census for the heated map data. We've been keeping up with that from the very first day. We appreciate that.

And I've been looking—as you know, I represent the southern part of Texas, a lot of the border areas, and I've been keeping up with, for example, the national average as of today. On March 25th, the national average was 20 percent on the participation rate. The State of Texas was 12. My home county, which is—and I've been talking to Dr. Groves, and I thank him for being down there—is 2 percent. Then I have Stark County, which is another border county, at 4 percent. Zapata, another county, at 7. Hidalgo, another one, at 6 percent. So you can see there is a little sink trend we've been seeing for a while.

And as you know, in the past, I've been bringing up questions about how you're all spending that money. The advertising on the spending, as you'll recall—I don't know if you were here. The last time Dr. Groves was here, I was bringing up the point that, when you all came up with your budget on March 26, 2009 compared to the budget from February 4, 2010, there was a decrease in budget from local ad buys for the hard-to-count communities, but at the same time, there was an increase in the budget for production and labor and so forth. So, you know, I'm one of those that I want to see the efficiencies in how you spend the best dollars for this.

Are there any updates on the numbers for the budgets or do we still have the same lower amounts of local ads? And I'm not doing a comparison to 2010, because I know there was an increase, but I'm looking at the—when you had a budget in 2009 and, of course, the latest budget. I just had a concern that you put more money for production and labor and less money for the hard-to-count, especially since I've been—and I told Dr. Groves I was going to followup, and I placed a phone call today, and I'm supposed to be talking to him tomorrow about the hard-to-count and that we're going to followup on this because we've been looking at this with a lot of interest.

And, again, the heated map data—I think it's one of the best things the Census has done, and I want to congratulate you on that.

Mr. JACKSON. Yes, sir.

Congressman, let me say that on the spending, the spending for local ethnic audiences is actually higher than it was in proportion to the spending for what we call "diverse America." Now, you mentioned a different categorization in terms of production from paid media by—from actually buying airtime, so I'm not sure what you——

Mr. CUELLAR. Well, the reference was if we could save a little bit more money in production and labor, because I think one of the things—what happened, Mr. Chairman, was that you all were pay-

ing actors money, and every time you run an ad, they get a little fee.

Mr. JACKSON. I see.

Mr. CUELLAR. There would have been a lot of community—local trusted leaders—church leaders and other community leaders—in my district and other places that would have more impact, with all due respect, than some actor from L.A.—sorry, anybody from L.A.—or from somewhere else—Hollywood, should I say. And I think—in my area, if you were to put one of those local trusted leaders in one of those, I think it would have had more of an impact, and I think Chairman Clay and I have talked about this.

But I do understand there has been an increase, but I'm trying to squeeze more dollars——

Mr. JACKSON. Right.

Mr. CUELLAR [continuing]. From the production and labor because, you know, without going into details, there was an increase there.

Mr. JACKSON. Right. Let me tell you what we are doing.

We do have a reserve fund of about $7 million, and next week we will be looking at a summary of the data that you just mentioned, the daily response rates, which we track daily. We look at them daily, and we will be making decisions about where to strategically place additional ads and where possibly to spend additional money in newspapers. So we are, I think, where you want us to be on that.

Mr. CUELLAR. Yes, sir, and I appreciate that.

I just wondered, just because when we met, Chairman Clay, with Dr. Groves and your staff, that was exactly the point we're talking about, the $7 million, and then we were going to be tracking. I think we're at the time now that Dr. Groves asked us to get back to him—and this is why I placed a phone call earlier today—to followup on that because, like I said, my home county, which I've been talking about, which is in the top 50 counties that are hard to count, according to your data, has 2 percent. And unless if it changed between the last time you updated the number—it's at 2 percent, and we have one at 4 percent and one at 6 percent—way below the 20 for the national average. So I just wanted to——

Mr. JACKSON. Let me mention just a couple of other things, Congressman, because I want you to appreciate, if possible, the efforts we're undertaking to make sure we do count everyone there.

Mr. CUELLAR. And I do. I do.

Mr. JACKSON. We're doing a procedure called Update/Enumerate where we actually do the enumeration ourselves rather than mail out in parts of your area. We will be not only adding something to the strategic ads, but we have some special partnership efforts we'll be undertaking around April 10th that will put people on the ground to try to encourage respondents who have not responded by that point in time, and of course, we still have the replacement questionnaire that we will send out next week.

Mr. CLAY. Excuse me.

If I may, Mr. Jackson, would you share with Mr. Cuellar and the subcommittee in writing the efforts that you're making in hard-to-count communities——

Mr. JACKSON. Certainly. Certainly. I'd be more than happy to and to meet with your staff.

Mr. CLAY [continuing]. In particular in south Texas.

Mr. JACKSON. Yes, we will. We'd be more than happy to.

Mr. CUELLAR. And, again, thank you, Mr. Chairman. I want to thank you. I know you're all trying the best. I'm just trying to do my best to represent my district.

Thank you.

Mr. CLAY. Thank you very much.

Mr. Jackson, what is the—you are bringing in senior engineers from your major hardware and software vendors to review the PBOCS issue. I understand that even this Tuesday there were severe performance issues.

What have your engineers found, and what are your immediate plans for remedy?

Mr. JACKSON. Yes, sir, Mr. Chairman.

We have brought in engineers, not really to consult but to do, and there are parts of our configuration that have to do with operating systems, Oracle data bases and certain hardware configurations—network configurations—that are very powerful but are somewhat new to us. So to augment our technical resources, we have brought in consultants from each of those vendors to make sure that the way we are using their technology is appropriate.

Mr. CLAY. Sure.

Real quickly, tell the subcommittee about the Bureau's contingency plans in the event of a data security breach.

Mr. JACKSON. We have a COOP program, a Continuity of Operations Program; and for data breaches, we have an established set of procedures that we go through. We have actually had to go through that a couple of times where the local managers have instructions as to how to secure the facility. We have at the Department of Commerce a reporting of incidents that goes on every 24 hours, and then we have protocols for contacting local officials to make sure that anything that requires law enforcement involvement is immediately invoked.

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

Mr. Goldenkoff, can you give me your general opinion as to whether there is time to ensure that the Bureau's IT systems, particularly DAPPS and PBOCS, can meet their operational requirements?

Mr. GOLDENKOFF. There is time, but it's running out.

Mr. CLAY. It's running out?

Mr. GOLDENKOFF. That's the bottom line.

I mean, as I said before, there are these fixed dates, and there's still a lot of testing that needs to be done. A lot of these release—not a lot—but the release that will be responsible for nonresponse followup, that has some known defects in it. That hasn't been fully tested yet, and as these tests are completed, it's possible that new defects will be found.

Mr. CLAY. Have they followed your recommendation as to how to shore this situation up?

Mr. GOLDENKOFF. They have, but they—for example, we recommended better executive-level oversight, for example, better coordination among the different teams, and they've certainly done

that, and we've given them credit for it; but in the end, there's these immutable deadlines and the workload that needs to be done, and from what we're seeing right now, it's going to be a challenge to complete all the testing to complete that workload in time for these operations to start.

Mr. CLAY. Not shaping up like it should. Thank you.

Mr. GOLDENKOFF. It's worrisome.

Mr. CLAY. And, Ms. Gordon, let me just have you finish off the answers.

Your quarterly report states that Census spent 15 percent less than it had planned for the 3 months ending in 2009. Is it unlikely that the Census will continue similar cost containment in the coming months?

Ms. GORDON. Well, we would hope so, but we wouldn't necessarily anticipate that would be the case.

What we have seen is a lot of variability of actual costs incurred as compared to the cost estimate, so—and we have recommended that Census really rigorously apply internal controls so that wages claimed and travel costs claimed are actually what was incurred, and so we—you know, we're encouraging Census to pay a great deal of attention to that to try to keep the costs on track.

Mr. CLAY. Thank you so much.

Let me thank the entire panel for their testimony today. We appreciate your testimony and your willingness to come before the committee, and that concludes this hearing.

Hearing adjourned.

[Whereupon, at 2:53 p.m., the subcommittee was adjourned.]

○