# 2010 CENSUS: PROGRESS ON THE DEVELOPMENT OF THE FIELD DATA COLLECTION AUTOMATION PROGRAM AND THE DECENNIAL RESPONSE INTEGRATION SYSTEM

## JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES

AND THE

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

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# 2010 CENSUS: PROGRESS ON THE DEVELOPMENT OF THE FIELD DATA COLLECTION AUTOMATION PROGRAM AND THE DECENNIAL RESPONSE INTEGRATION SYSTEM

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**WEDNESDAY, APRIL 9, 2008**

HOUSE OF REPRESENTATIVES, SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES, COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM JOINT WITH COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM,

*Washington, DC.*

The subcommittee and committee met, pursuant to notice, at 2 p.m., in room 2154, Rayburn House Office Building, Hon. Henry A. Waxman (chairman of the full committee) presiding.

Present: Representatives Waxman, Maloney, Clay, McCollum, Hodes, Sarbanes, Davis of Virginia, Platts, Duncan, Turner, Issa, Sali, and Jordan.

Staff present from the Information Policy, Census, and National Archives Subcommittee: Darryl Piggee, subcommittee staff director/counsel; and Jean Gosa, clerk.

Staff present from the full committee: Phil Schiliro, chief of staff; Phil Barnett, staff director and chief counsel; Karen Lightfoot, communications director and senior policy advisor; Alison Cassady, counsel; Anna Laitin and Mark Stephenson, professional staff members; Earley Green, chief clerk; Teresa Coufal, deputy clerk; Caren Auchman and Ella Hoffman, press assistants; Leneal Scott, information systems manager; William Ragland and Miriam Edelman, staff assistants; David Rapallo, chief investigative counsel; Michelle Mitchell, legislative assistant, Office of Wm. Lacy Clay; Larry Halloran, minority staff director; Keith Ausbrook, minority general counsel; Steve Castor and Charles Phillips, minority counsels; John Caderes, minority senior investigator and policy advisor; Patrick Lyden, minority parliamentarian and member services coordinator; Brian McNicoll, minority communications director; and Ali Ahmad, Chris Espinoza, and Todd Greenwood, minority professional staff members.

Chairman WAXMAN. The meeting of the joint hearing by the full committee and the Subcommittee on Information Policy, Census, and National Archives will come to order.

Today we will examine major problems with a contract critical to the success of the 2010 census, the field data collection automation contract. These problems have recently led to a major redesign of

the census very late in the process and will cost the taxpayer, by the administration's own estimate, up to $3 billion.

Let me be blunt: this is a colossal failure. The mismanagement of the contract has jeopardized the success of the 2010 census and will cost taxpayers billions of dollars.

This hearing and our future oversight activities need to have two objectives: first, we must do all we can to ensure that the census is as accurate as possible. The Federal Government depends on the census for everything from the accurate apportionment of the House of Representatives to the fair distribution of millions of dollars in Federal funds. Inaccuracies in the census deprive millions of Americans of a voice in our Government.

At the same time, we owe it to the taxpayer to find out what went wrong and who was responsible. The FDCA contract was originally intended to produce approximately 500,000 hand-held computers with a total contract cost of $600 million. Now the Commerce Department is saying that the taxpayer must pay $1.3 billion, more than twice as much, to the contractor, although it will now only produce 151,000 hand-held computers.

In addition, the Commerce Department announced that the census will revert to a paper-based canvas. These changes will increase the cost of the census by billions of dollars.

The warning signs that this contract was in trouble were there for the Bureau and for the Commerce Department to see. My staff has prepared a fact sheet that summarizes the long series of alarms that GAO and the Inspector General sounded about this program, and I ask that this fact sheet be made a part of the record and will be available.

Without objection, that will be the order.

In June 2005 GAO said that the Bureau was not adequately managing major it investments. In March 2006, GAO advised that the Census Bureau had "not yet approved a baseline set of operational requirements" for the contract.

In June 2006 GAO stated that "the uncertainty surrounding the devices' reliability constitutes a risk to the cost-effective implementation of the 2010 Census."

In June 2007 the MITRE Corp. told the Bureau that the census is at significant risk of cost and schedule overruns, omission of essential requirements unless major changes are made quickly.

In July GAO warned that the project was likely to experience cost overruns, primarily due to the increase in system requirements.

The warning signs were clear, yet the Bureau and the Department apparently did not begin a serious review of the program requirements until late 2007 to early 2008. The problems were essentially swept under the rug until the committee began to ask questions and insist on briefings from the Bureau on the extent of the problems and possible solutions.

I am glad that we have representatives from the Census Bureau, GAO, Harris Corp., and the MITRE Corp. with us today to address these questions, but I am disappointed that two key figures refused to appear today. Dr. Charles Lewis Kincannon was the Census Director when many of the key decisions were made, and we invited him to testify, but, unfortunately, he declined. I am also dis-

appointed that Commerce Secretary Guitierrez declined our opportunity to testify. I have questions about the Department's role in overseeing the contract. The committee has requested documents from Secretary Guitierrez, and we will continue our oversight efforts in this area.

When taxpayers' dollars are squandered, we have an obligation to find out what happened. We also have an obligation to conduct oversight to identify what steps are necessary to put the 2010 census back on track. Those are our goals for today.

[The prepared statement of Chairman Henry A. Waxman follows:]

**Opening Statement of Rep. Henry A. Waxman**
**Committee on Oversight and Government Reform**
**Joint Hearing on 2010 Census: Field Data Collection Automation Contract (FDCA) Contract**
**April 9, 2008**

Today we will examine major problems with a contract critical to the success of the 2010 Census, the Field Data Collection Automation Contract. These problems have recently led to a major redesign of the Census very late in the process and will cost the taxpayer — by the Administration's own estimate — up to $3 billion.

Let me be blunt: This is a colossal failure. The mismanagement of the contract has jeopardized the success of the 2010 Census and will cost taxpayers billions of dollars.

This hearing and our future oversight activities need to have two objectives. First, we must do all we can to ensure that the 2010 Census is as accurate as possible. The federal government depends on the Census for everything from the accurate apportionment of the House of Representatives to the fair distribution of billions of dollars in federal funds. Inaccuracies in the Census deprive millions of Americans of a voice in our government.

At the same time, we owe it to the taxpayer to find out what went wrong and who is responsible.

The FDCA [fid-ca] contract was originally intended to produce approximately 500,000 handheld computers with a total contract cost of $600 million. Now the Commerce Department is saying that the taxpayer must pay $1.3 billion — more than twice as much — to this contractor, although it will now only produce 151,000 handheld computers.

In addition, the Commerce Department announced that the Census will revert to a paper-based canvass. These changes will increase the cost of the Census by billions of dollars.

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I am also disappointed that Commerce Secretary Gutierrez declined our opportunity to testify. I have questions about the Department's role in overseeing the contract. The Committee has requested documents from Secretary Gutierrez, and we will continue our oversight efforts in this area.

When taxpayer dollars are squandered, we have an obligation to find out what happened. We also have an obligation to conduct oversight to identify what steps are necessary to put the 2010 Census back on track.

Those are our goals for today.

Chairman WAXMAN. I want to recognize the ranking member of the full committee, Mr. Davis, for an opening statement.

Mr. DAVIS OF VIRGINIA. Thank you, Mr. Chairman.

Chairman Waxman and Subcommittee Chairman Clay, we appreciate your calling this hearing on problems with the 2010 census. Some of us on this side have been warning about red lights on the census dashboard for some time, but it gives us no satisfaction to know we were right about the floundering automation project and other Government lapses at the Census Bureau.

The goal now has to be to refocus the program on essential preparatory activities and be sure the Constitutionally mandated numeration will be conducted successfully and efficiently.

I am sure some of our panel today would rather be getting a root canal than appearing here today, but this hearing is long overdue. After months of denials and delayed reckoning, it is time to acknowledge that budget shortfalls and management deficits at the Commerce Department have put the census in a perilous position at a critical time.

At the epicenter of the threatened implosion is the field data collection system [FDCA]. Hand-held computers developed under the program were to be used for the first time to capture responses from people who do not complete the mail-in forms, but last week the Commerce Department conceded the devices were not ready and trying to finish and test them in the time remaining posed too great a risk of an inaccurate or incomplete count.

Today we hope to learn more about the events leading up to last week's announcement, but this much we already know: this did not have to happen. Americans interact with hand-held devices every day. Major international corporations use portable electronic devices all the time to track inventory and information on a global basis across cultural boundaries and logistical barriers. What the Bureau tried to do in creating a hand-held device to collect and track address data and census responses from numerators in the field wasn't impossible, but for reasons all too predictable it proved unattainable for the Census Bureau.

Over more than 30 years of work and acquisition policy in both the public and private sectors, I have seen this type of failure too many times. It doesn't happen because the technology doesn't exist; it happens most often because those managing the project are in over their heads, blithely unaware of the avoidable potholes and pitfalls littering the path of any major IT development. It happens because Agency officials are not trained to communicate clearly and succinctly with contractors hired to provide the technology solution required. And it happens when managers of our contracts between the Agency and the contractor shuffle along day after day, week after week, on auto pilot without any objective effort to track or measure real progress. Meanwhile, millions of tax dollars are being spent or mis-spent.

In this case it happened in large part because the Census Bureau failed to tame an out-of-control requirements process that churned internally until January of this year.

I have a chart up here. Despite warnings from us, from outside experts, and from their own contractor, Census officials persisted in the belief that they could stuff an endless list of tasks into the

small box that they had already bought. For example, bidders were told to include only one external interface on the hand-held device, but in the end the Census Bureau wanted 12 interface systems installed, each requiring substantial additional software development, integration, and documentation.

Let's view the second chart. This is a classic case of requirements creep, treatable if diagnosed early, but potentially fatal if left to fester. There is no scandal here, no nefarious plot to outsource essential Government functions. Any attempt in this case to vilify contractors just shoots the messenger and ignores the essential message.

This was a failure of Government management, not contract performance. The Census Bureau appears to have under-estimated the cost of even the one aspect of the automation project that will survive, address verification. It now appears as much as $3 billion more might be needed between now and 2010 to replace the handhelds with a paper system and fully fund those other aspects of the census for which the Department drastically under-stated costs.

Every House Member, every Federal agency, every city, county, and State has a vested interest in making sure the 2010 count is as complete and accurate as possible. It is going to take a massive amount of effort to have a successful census. In past time, we did our part to ensure its Constitutionally mandated initiative was conducted properly and on time.

I think it is time we think about empaneling an expert monitoring board like we did a decade ago to watch over the Census Bureau and its work every day. The current level of oversight certainly doesn't seem to be enough, and time is running short to get it right.

Thank you.

[The prepared statement of Hon. Tom Davis follows:]

**Oversight and Government Reform Republican Staff**

**http://republicans.oversight.house.gov**

- **Opening Statement of Ranking Member Tom Davis, R-Va.,**
- **MITRE's FDCA Program Status Flow Chart**
  - This chart, taken from a June 6, 2007, MITRE assessment of FDCA Program Status, shows the unwieldy nature of the Census' requirements. The entire assessment can be found on our website.
- **Harris' Presentation to Commerce on Proposal Baseline vs. Operational Needs**
  - This slide from a Harris presentation to the Department of Commerce, obtained by the committee in the course of its investigation, demonstrates the sizable gap between the project Harris was asked to bid on and the project that Census knew it was going to need.

HENRY A. WAXMAN, CALIFORNIA
CHAIRMAN

TOM DAVIS, VIRGINIA
RANKING MINORITY MEMBER

ONE HUNDRED TENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
2157 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6143

# Statement of Rep. Tom Davis
# Ranking Republican Member
# Oversight and Government Reform Committee
# *"2010 Census: Progress on the Development of the Field Data Collection Automation Program (FDCA)*
# April 9, 2008

Chairman Waxman and Subcommittee Chairman Clay, we appreciate your calling this hearing on problems with the 2010 census. Some of us on this side have been warning about red lights on the census dashboard for some time. But it gives us no satisfaction to know we were right about the floundering automation project and other management lapses at the Census Bureau. The goal now has to be to refocus the program on essential preparatory activities and be sure the constitutionally mandated enumeration will be conducted successfully and efficiently.

After months of denials and delayed reckoning, it's now acknowledged that budget shortfalls and management deficits at the Commerce Department have put the census in a perilous position at a critical time. At the epicenter of the threatened implosion is the Field Data Collection System, or FDCA. Handheld computers developed under the program were to be used for the first time to capture responses from people who do not complete the mail-in form. But last week the Commerce Department conceded the devices were not ready, and trying to finish and test them in the time remaining posed too great a risk of an inaccurate or incomplete count.

Today, we hope to learn more about the events leading up to last week's announcement. But this much we already know: This didn't have to happen.

Americans interact with handheld devices every day. Major international corporations use portable electronic devices all the time to track inventory and information on a global basis, across cultural boundaries and logistical barriers. What the Bureau tried to do in creating a handheld device to collect and track address data and census responses from enumerators in the field was not impossible. But for reasons all too predictable, it proved unattainable for the Census Bureau.

Over more than thirty years of work in acquisition policy, in both the public and the private sectors, I've seen this type of failure many times. Too many times. It doesn't happen because the technology doesn't exist. It happens most often because those managing the project are in over their heads, blithely unaware of the avoidable potholes and pitfalls littering the path of any major IT development. It happens because agency officials are not trained to communicate clearly and succinctly with contractors hired to provide the technology solution required. It happens when managers allow contacts between the agency and the contractor to shuffle along day after day, week after week on auto-pilot, without any objective effort to track or measure real progress. Meanwhile, millions of tax dollars are being spent, or misspent.

In this case, it happened in large part because the Census Bureau failed to tame an out-of-control requirements process that churned internally until January of this year. Despite warnings from us, from outside experts and from their own contractor, Census officials persisted in the belief they could stuff an endless list of tasks into the small box they'd already bought. For example, bidders were told to include only one external interface on the handheld device. In the end, the Census Bureau wanted 12 interface systems installed, each requiring substantial additional software development, integration and documentation. That's a classic case of requirements creep – treatable if diagnosed early but fatal if left to fester.

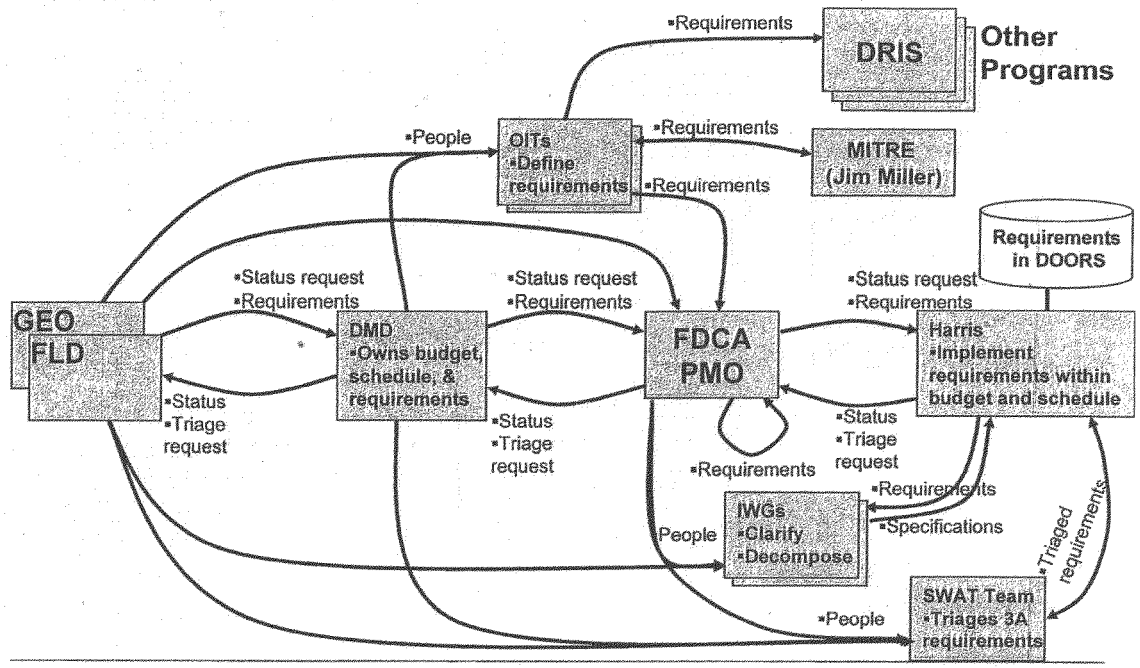
There's no scandal here, no nefarious plot to outsource essential governmental functions. Any attempt in this case to vilify contractors just shoots the messenger and ignores the essential message: This was a failure of government management not contract performance. The Census Bureau appears to have underestimated the cost of even the one aspect of the automation project that will survive – address verification. It now appears as much as $3 billion more might be needed between now and 2010 to replace the handhelds with a paper system and fully fund those other aspects of the census for which the Department drastically understated costs.

Every House Member, every federal agency, every city, county, and state has a vested interest in making sure the 2010 count is as complete and accurate as possible. It's going to take a massive amount of effort to have a successful census. It's past time we did our part to ensure this constitutionally mandated initiative is conducted properly and on time. And, I think it's time we think about empanelling an expert monitoring

board, like we did a decade ago, to watch over the Census Bureau and its work every day. The current level of oversight certainly doesn't seem to be enough and time is running short to get it right.

# Assessment Findings

## Requirements Process Lacked Clarity




MITRE

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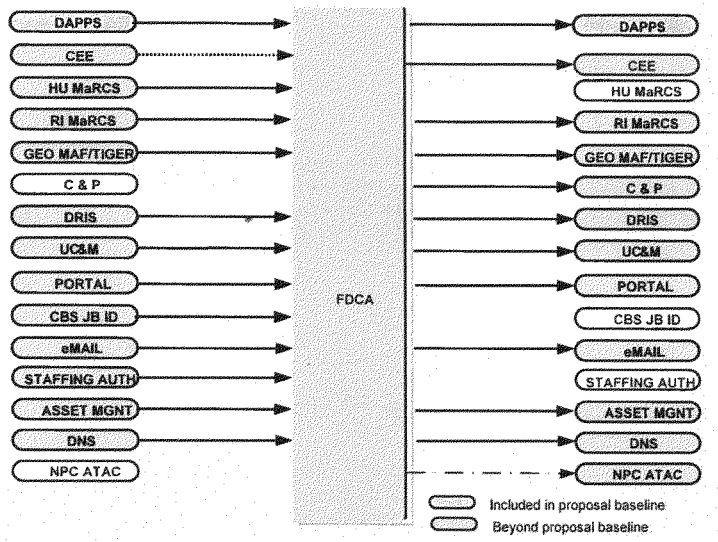
# Proposal Baseline vs. Operational Needs - Example #1: External Interfaces

HARRIS

accenture UNISYS CNSI




*Each Interface requires a complete development lifecycle*
- *Working Groups*
- *Interface Control Documents*
- *ISAs*
- *Software Development*
- *Test Plans and Test Data generation*
- *Interface Validation*

***RFP instructed bidders not to include external interfaces (except DAPPS). These were to be defined after contract award. This resulted in scope growth.***

## COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

**TOM DAVIS, RANKING MEMBER**

**HTTP://REPUBLICANS.OVERSIGHT.HOUSE.GOV**

## *NEWS RELEASE*

**For Immediate Release**
**April 9, 2008**

**Contact: Brian McNicoll**
**(202) 225-5074**

# Census Oversight

**WASHINGTON, D.C.** — The chronology released by the majority, and comments suggesting Republicans did "little oversight" of the census, overlook substantial work undertaken during previous Congresses. That one-sided perspective injects needless partisanship to the discussion of a critical national issue. Here is the actual record of census oversight:

**Hearings:**

- April 19, 2005, *Halfway to the 2010 Census: The Countdown and Components to a Successful Decennial Census.*
- March 1, 2006, *Apportionment in the Balance: A Look into the Progress of the 2010 Decennial Census.*
- Dec. 6, 2005, *"Counting the Vote: Should Only U.S. Citizens be Included in Apportioning our Elected Representatives?"*
- May 10, 2005, *"Life in the Big City: What is Census Data Telling Us About Urban America? Are Policymakers Really Listening."*

**GAO reports requested:**

- 2010 Census: Census Bureau Needs to Take Prompt Actions to Resolve Longstanding and Emerging Address and Mapping Challenges (June 2006)
- Federal Assistance: Illustrative Simulations of Using Statistical Population Estimates for Reallocating Certain Federal Funding (June 2006)Federal

Information Collection: A Re-examination of The Portfolio of Major Federal Household Surveys is Needed (November 2006)

- How adjusting Decennial Census data affects Federal funding to states (a key issue now that we appear headed toward a paper count).

- Census Bureau Generally follows Selected Leading Acquisition Planning Practices, but Continued Management Attention is Needed to Help Ensure Success. (May 2006)

- Addressing the significant overlap of information gathered by government-funded surveys conducted by the Census Bureau, other federal agencies and private organizations.

- 2010 Census: Overseas Enumeration Test Raises Need for Clear Policy Direction. (May 2004)

**Congressional briefings:**

- *The Road to the 2010 Census: Implications for Apportionment, Redistricting and the Economy,* April 7, 2006.
- *Better Data for Better Decisions: The Value of the American Community Survey to the Nation,* June 23, 2006.
- *Know your Constituency: Congressional District and State Profiles from the 2005 American Community Survey,"* September 28-29, 2006

**Legislation submitted:**
HR 337, "To Amend Title 13, U.S. Code, to provide that the term of office of the Director of the Census shall be five years, to provide that the Director of the Census report directly to the Secretary of Commerce, and for other purposes. Reported out of subcommittee on Feb. 15, 2005.

**Letters:** Ranking Member Davis had to write three letters *this year* before Democrats agreed to hold even a single full committee hearing on problems.

**Subcommittee staff report::** Subcommittee released a report in which Census officials assured Congress they would make addressing problems with handhelds and other technological devices would be their "top priority." (December 2006)

**Meanwhile,** in this Congress, Census oversight has centered on issues such as whether to count prison inmates prisons as residents of their former communities or as residents of their new "homes."

Chairman WAXMAN. Thank you very much, Mr. Davis.

I want to recognize Chairman Clay.

Mr. CLAY. Thank you, Mr. Chairman. Thank you for holding this joint committee hearing today.

The decennial census is the largest peace-time mobilization in this country. We are here today to examine what happened, why it happened, and what are the options for correcting the problem, both on the part of the Bureau and the contractor, so that we can have a complete and accurate census in 2010.

First let's examine how we got here. In 2001, in response to a congressional mandate, the Census Bureau set out to re-engineer the 2010 decennial census. Doing so they claimed would reduce operational risk and contain cost. Bureau officials determined that this could be accomplished with the use of innovative technology, specifically hand-held computing devices.

From 2000 to 2004, the Bureau attempted to design and produce the device internally. When they realized they did not have the resources to complete the project, they decided to contract it out.

In May 2006 the Harris Corp. was awarded the $600 million, 5-year contract for FDCA. Before the contract was awarded, the Commerce Department Inspector General in a 2005 report expressed concern about the baseline requirements. In March 2006 GAO expressed similar concern.

Despite all of the warnings about FDCA from GAO and the Department of Commerce Inspector General, there was little congressional oversight of the 2010 decennial census between 2001 and 2006.

Since January 2007 the Information Policy, Census, and National Archives Subcommittee held seven hearings on the 2010 census. This subcommittee began looking into the information technology problems with the 2010 census in February 2007. In April 2007 the subcommittee held a hearing on the progress of the 2010 census. At that hearing we called GAO and the Harris Corp. to testify about the census IT contract.

At that time, GAO expressed concern about the incomplete requirements for FDCA; however, Harris testified that everything was on time and on budget.

Between April 2007 and November 2007, subcommittee staff met with GAO and the Census Bureau numerous times to discuss the progression of the IT program for the 2010 decennial census, specifically how the Bureau and Harris were resolving problems identified by GAO.

On December 11, 2007, this subcommittee held a hearing titled, A Review of the Census Bureau's Risk Management Activities for IT Acquisition. The Harris Corp. was present to address concerns raised by the GAO report titled, Census Bureau Needs to Improve its Risk Management of Decennial Census. Harris testified before the committee that their projects were on schedule and on budget and problems were manageable. This was in December 2007.

We have since learned that this is not the case with FDCA. The requirements for FDCA are still not complete 18 months after the contract was awarded, and last week the Secretary of Commerce informed Congress that the Bureau would not be using the hand-

held computing devices for non-response followup as originally planned, but for address canvassing only.

Despite what appeared to be a smaller scope for the contract, the Bureau will pay between $900 million and $1.3 billion for a contract that awarded for $600 million.

We are here today to find out if the Harris Corp. and the Bureau's assessments of the FDCA project were accurate in December and how the cost could possibly double.

I look forward to hearing the witnesses' testimony.

I yield back, Mr. Chairman.

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

Opening Statement

The Honorable Wm. Lacy Clay, Chair
Subcommittee on Information Policy, Census, and National Archives
Committee on Oversight and Government Reform

Hearing on "2010 Census: Progress on the Development of the Field Data Collection Automation (FDCA) and the Decennial Response Integration System (DRIS)

April 9, 2008

The decennial census is the largest peacetime mobilization in the country. We are here today to examine what happened, why it happened, and what are the options for correcting the problems, both on the part of the Bureau and the contractor, so that we can have a complete and accurate census in the year 2010.

Commerce IG, there was little congressional oversight of the 2010 decennial census between 2001 and 2006. Since January, 2007, the Information Policy, Census, and National Archives subcommittee held 7 hearings on the 2010 Census.

This subcommittee began looking into the information technology problems with the 2010 Census in February 2007. In April 2007, the subcommittee held a hearing on the progress of the 2010 Census. At that hearing, we called GAO and the Harris

When they realized they didn't have the resources to complete the project, they decided to contract it out. In May 2006, the Harris Corporation was awarded the $600 million, five-year contract for FDCA.

Before the contract was awarded, the Commerce Department Inspector General, in a 2005 report, expressed concern about the baseline requirements. In March of 2006, GAO express similar concerns.

Despite all of the warnings about FDCA from GAO and the Department of

First, let's examine how we got here?

In 2001, in response to a Congressional mandate, the Census Bureau set out to "re-engineer" the 2010 Decennial Census. Doing so they claimed it would reduce operational risk and contain costs. Bureau officials determined that this could be accomplished with the use of innovative technology, specifically handheld computing devices.

From 2000 to 2004 the Bureau attempted to design and produce the device internally.

Corporation to testify about the Census IT contracts. At that time, GAO expressed concern about the incomplete requirements for FDCA; however, Harris testified that everything was "on time and on budget."

Between April 2007 and November 2007, subcommittee staff met with GAO and the Census Bureau numerous times to discuss the progression of IT programs for the 2010 Decennial Census, specifically how the Bureau and Harris were resolving problems identified by GAO.

On December 11, 2007, this subcommittee held a hearing titled, "A Review of the Census Bureau's Risk Management Activities for IT Acquisition." The Harris Corporation was present to address concerns raised by the GAO report titled, "Census Bureau Needs to Improve Its Risk Management of Decennial Census." Harris testified before the committee that their projects were "on schedule and on budget" and problems were "manageable."

We have since learned that this is not the case with FDCA.

The requirements for FDCA are still not complete 18 months after the contract was awarded. And, last week, the Secretary of Commerce informed Congress that the Bureau would not be using the handheld computing devices for nonresponse follow-up, as originally planned, but for Address Canvassing only. Despite what appeared to be a smaller scope of the contract, the Bureau will pay between $900 million and

$1.3 billion for a contract that awarded for $600 million.

So, we are here today to find out if the Harris Corporation and the Bureau's assessments of the FDCA project were accurate in December and how the cost could possibly double.

I look forward to hearing the witnesses' testimony.

Chairman WAXMAN. Thank you, Mr. Clay.

I want to recognize Ranking Member Turner.

Mr. TURNER. Thank you, Mr. Chairman.

We are just all so incredibly disappointed that we are here having this hearing today. I obviously want to disagree with the chairman of our subcommittee in the activities of the subcommittee in the 2-years prior to his chairmanship.

When I chaired the subcommittee we had numerous hearings on this subject matter. In fact, we engaged GAO because of the lack of belief on the subcommittee's part that the Census Bureau was doing what was necessary. In fact, in our hearings and in the GAO report it expressly set out the problems that could befall us if this was not managed appropriately.

If you look at what we are hearing now, clearly this is an issue of just gross mismanagement. When we had our meeting with Secretary Guitierrez I asked him one question: was this task possible? Could it have been achieved?

Unless that answer is no, then that means that someone is not doing their job and that the taxpayers have funded a project that has been completely mismanaged without delivering the product that was intended, which is exactly what this subcommittee feared when we engaged GAO and held hearings with the Census Bureau leadership and told them of our concern of what would happen if their plan failed.

I am not willing to concede that it is merely the Census Bureau and that all the contractors did everything that they were supposed to do, because I cannot believe that a project of this magnitude, that the intellect that brought to bear wasn't fully informed intellect, meaning that everybody at the table had responsible to deliver it. This is, I believe, an accomplishable project that has failed as a result of mismanagement and it has placed at risk, which is exactly what we were concerned with when we had our hearings with GAO, the successful census.

I appreciate the chairman for holding this hearing, and as we pursue this there is a lot to find out here. It is not just how do we preserve the census, which of course is of utmost importance. How do we ensure that it is done in a manner where we can all be confident, which is surely important. But when you have a committee that is continually told by the Census Bureau everything is on track when there are fears that are expressed by the committee and by GAO that are not addressed, and then the Census Bureau comes to us and tells us that the project is now failing, there is an issue of management and oversight that needs to occur that obviously did not occur here.

Those are important issues for us to address today beyond just the issue of how do we get the census on track.

Thank you, Mr. Chairman.

Chairman WAXMAN. Thank you, Mr. Turner.

Without objection, all Members will be allowed to enter an opening statement in the record. I don't want to preclude anybody who wants to give an opening statement at this point, however, and I do want to particularly recognize Mrs. Maloney because she has been a long-time leader in the area of census.

Mrs. Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman. I wanted to commend you on the chronology of warnings that really documents the mismanagement of the Census Bureau and be associated in a bipartisan way with the comments of Mr. Davis, Mr. Turner, and Mr. Clay, all of whom pointed out mismanagement personified in the Census Bureau.

I really do not know what to say, Mr. Chairman, given the facts before us. I have called this a statistical Katrina, but Katrina was a natural disaster and a natural catastrophe made worse by the administration's incompetent response. This is a disaster, like so many others during the past 7 years, of the administration's own making, I would say.

Dr. Murdock, there is no way to sugar coat it. I know you have only been here for a few months and the administration of which you are an appointee decided not to send the Secretary, Secretary Guitierrez, so you are now here representing the administration. You just got here. That's a little unfair position to put you in.

Today I think that we will hear that there is more than enough blame to go around among Harris, Census, Commerce, OMB, and MIT research, but ultimately we know that it is this administration's fault, and nobody else's.

This census, like the 1990 census of President Bush, Senior, willprobably again be a census that is less accurate than the one before it.

Ultimately, there is plenty of negligence to go around, but someone has to be in charge, and this President likes to say he is the decider, but that is not leadership. He is the Chief Executive of the executive branch, and in the final analysis this President is responsible for this 11th hour challenge that we are facing with the census.

There is no doubt that 2 years out, given the magnitude of problems, the 2010 census is shaping up to be less accurate, no matter who is in the Chair 2 years from now. It is regrettable, truly regrettable, that this is the case.

The only question is not who is to blame. We know that. But rather, what, if anything, can be done to make it less worse.

That is the question, Dr. Murdock.

While the White House is looking around to find the money, and we need to find the money to fix this mess, there is going to be a cloud over moving forward to fix this for the next few weeks, and I understand from some colleagues of mine at the Census Bureau, that we are running out of money and they are now considering layoffs at the Department.

Dr. Murdock, the first Census Director in 1790 was Secretary of State Thomas Jefferson, and it was Jefferson who said, "The price of freedom is eternal vigilance." It was Jefferson and Madison together who crafted the novel American concept of a decennial census to empower the people and ensure all Americans are fairly represented in their Government.

Given the amount of money you are now asking for, we can see that the cost of that fair representation and our Constitutional mandate is priceless.

Frankly, Dr. Murdock, you are going to be back in Texas in less than a year and Secretary Guitierrez will probably be back in

Michigan. Chairman Waxman and Clay and I are going to be sitting here with a mess unless you work right now to fix it.

What I want to know and hear in this hearing is, after we give you all the money you are asking for, what objective, measurable benchmarks can you tell us today will be in place on May 1st, June 1st, July 1st so that you and this administration do not leave this big challenge for the next administration.

I plan to ask you that, Dr. Murdock and Mr. Waite, and I also plan to ask the same question to GAO, Harris, MIT, all of you.

We need to hear what are the objective goals that we need to put in place and that we need to get done, and when we give you this money, what will you show us that we can have confidence that this census is going to go forward in the appropriate way.

If this chairman, Chairman Clay, has a hearing every month from now until you leave and we bring you back every month, how would we know that this plan of yours going forward will work?

Thank you, Mr. Chairman.

[The prepared statement of Hon. Carolyn B. Maloney follows:]

*14th District • New York*

**Congresswoman**

***Carolyn* Maloney**

**Reports**

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# Rep. Maloney's Prepared Remarks on 2010 Census Hearing

WASHINGTON, DC – Congresswoman Carolyn B. Maloney (D-NY), delivered the following prepared remarks at today's House Committee on Oversight and Government Reform hearing, "2010 Census, Progress on the Development of the Field Data Collection Automation (FDCA) Program and the Decennial Response Integration System (DRIS)":

"Thank you Chairman Waxman and Chairman Clay for holding today's hearing.

"I really do not know what to say given the facts before us. I have called this a statistical Katrina, but Katrina was a natural catastrophe made worse by the Administration's incompetent response.

"This is a disaster, like so many things during the past seven years, of the Administration's own making.

"Dr. Murdock, there is no way to sugar coat it. I know that you have only been here for a few months and the Administration, of which you are an appointee, decided to not send the Secretary, so you got stuck representing the Bush Administration.

"I guess if you knew then what you know now, you would not have packed your bags and left Texas.

"I am not sure what we could have expected from an Administration led by then-candidate and Governor Bush who, during the 2000 census recommended that Americans not respond.

"Today, I think we will hear that there is more than enough blame to go around among Harris, census, Commerce, OMB, and MITRE.

"But, ultimately, we know that it is this Administration's fault and nobody else's. This census, like the 1990 census of President Bush Sr., will probably again be a census that is less accurate than the one before it.

-over-

"Ultimately, there is a plenty of contributory negligence to go around, but someone has to be in charge. This President likes to say he is the "decider," but that's not leadership. He is the Chief Executive of the Executive Branch, and in the final analysis, this President is responsible for this eleventh hour disaster.

"There is no doubt that two years out, given the magnitude of problems, the 2010 census is shaping up to be less accurate – no matter who is in that chair two years from now. It's regrettable that this is the case.

"The only question is not, who is to blame? We know that. But rather, what - if anything - can be done to make it less worse?

"And that is the question Dr. Murdock.

"While the White House plays political games with where the money is coming from to fix this mess - money needed because of their own incompetence - there is going to be a cloud over moving forward to fix this for the next few weeks. I understand you are running out of money and are now considering layoffs.

"Dr. Murdock, the first census director in 1790 was Secretary of State Thomas Jefferson. It was Jefferson who said 'The price of freedom is eternal vigilance.' It was Jefferson and Madison together who crafted the novel American concept of a decennial census to empower the people, and ensure all Americans are fairly represented in their government.

"Given the amount of money you are now asking for, we see that the cost of that fair representation and our Constitutional mandate is priceless.

"But, what I want to hear today is how we are going to know that when we give you the money - because frankly we have no choice, we are going to have to get you the money one way or another - how are we going to know that this money is going to fix the problem and not be money down a drain?

"Frankly, Dr. Murdock, you are going to be back in Texas in less than a year from now and Secretary Gutierrez is going to be back in Michigan. Chairman Clay and I are going be sitting here with a mess unless you can fix it.

"What I want to know is, after we give you all this money you are asking for, what objective measurable benchmarks can you tell us today will be in place on May 1st, June 1st, July 1st, so that you and this Administration do not leave this big mess for the next Administration?

"I have no confidence in this Administration, and I know that your bags are packed and you are going to be gone.

"I plan to ask you that, Dr. Murdock, Mr. Waite. I plan to ask GAO, Harris, Mitre - all of you.

"Since I regret to say that I have NO confidence in this Administration being able to do this, what are the objective goals that you can tell me need to get done, if you get this money, that will give us any confidence next year?

"Dr. Murdock, we are not calling you back from Texas to ask what exactly you did.

"What I want to know is if the Chair has a hearing every month from now until you leave, and we bring you back every month, how will we know that this plan of yours will work?

"Thank you Mr. Chairman."

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Chairman WAXMAN. Thank you very much, Mrs. Maloney.

Other Members? Yes, sir?

Mr. DUNCAN. I don't have a full statement, but I do want to speak.

First of all, I thank you for calling this hearing, because I think this is certainly something we should stay on top of, but I, speaking just for myself and as a very fiscally conservative Member, I think this is disgusting. I remember just a few years ago when with IRS we spent something like $10 billion on a computer system that didn't work and just had to be scrapped, and now we come here and we hear that this program, which was budgeted for, I think, $11.5 billion, is not up to $14.5 billion, and we are going to have a cost overrun here of $2.5 or $3 billion, and who knows how much more it may add up.

We are all supposed to just worship technology, and whenever a Government agency messes up it always says it is either underfunded or its technology is out of date. Well, this is just getting ridiculous. And nobody seems to get upset about it because it is not money coming out of their pockets.

I thank you for holding this hearing, and I think we would have been better off if we had just done the census the old way and not even gone this far down this ridiculous path.

Thank you, Mr. Chairman.

Chairman WAXMAN. Thank you. Any other Member wish to make an opening statement? You certainly can put something in the record.

[No response.]

Chairman WAXMAN. If not, I want to welcome our witnesses today.

We have with us The Honorable Steven H. Murdock as the Director of the U.S. Census Bureau. Mr. Murdock is the former State demographer for Texas. He is accompanied by Mr. Preston Jay Waite, the Deputy Director.

Mr. Mathew Sciré is the Director of Strategic Issues at the GAO. Mr. Sciré's responsibilities include directing work on the 2010 census. He is accompanied by Mr. David Powner, Director of Information Technology Management Issues.

Dr. Jason F. Providakes is the senior vice president and general manager of the Center for Enterprise Modernization at MITRE Corp. Dr. Providakes has wide experience in advising the Federal Government on information technology programs.

And Ms. Cheryl L. Janey is the president of civil programs at the Harris Corp., where she oversees the development of advanced communications and information systems.

I want to welcome you all to our hearing. I hope I pronounced all of your names correctly. This is a very challenging panel in terms of your names, among other reasons.

It is the practice of our committee that all witnesses that testify do so under oath, so if you would please rise and raise your right hand.

[Witnesses sworn.]

Chairman WAXMAN. The record will reflect that each of the witnesses answered in the affirmative.

We have your prepared statements. They will be in the record in full. We would like to ask, however, if you could to limit the oral presentation to around 5 minutes. We are going to have on that little contraption on the desk. It will be green, the last minute it will be yellow, and then when time is up it will be red. So when you see the red, I hope you will sum up.

Mr. Murdock, I want to recognize you first.

**STATEMENTS OF STEVEN H. MURDOCK, DIRECTOR, U.S. CENSUS BUREAU; ACCOMPANIED BY PRESTON JAY WAITE, DEPUTY DIRECTOR, U.S. CENSUS BUREAU; MATHEW SCIRÉ, DIRECTOR, STRATEGIC ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE; DAVID POWNER, DIRECTOR, INFORMATION TECHNOLOGY MANAGEMENT ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE; JASON F. PROVIDAKES, SENIOR VICE PRESIDENT AND GENERAL MANAGER, CENTER FOR ENTERPRISE MODERNIZATION, MITRE CORP.; AND CHERYL L. JANEY, PRESIDENT, CIVIL PROGRAMS, HARRIS CORP.; ACCOMPANIED BY MIKE MURRAY, VICE PRESIDENT OF PROGRAMS AND LEAD EXECUTIVE, HARRIS CORP.**

**STATEMENT OF STEVEN H. MURDOCK**

Mr. MURDOCK. On behalf of the U.S. Census Bureau, Mr. Chairman, I would like to thank you and the members of this committee for the opportunity to discuss our plans for the 2010 decennial census.

I am pleased to be joined by Deputy Director Jay Waite today. He will be bringing you up to date on the Decennial response integration system and the rest of the 2010 census programs.

I am going to focus my remarks on the field data collection automation program [FDCA].

The FDCA program was originally designed to supply the information technology infrastructure, support services, hardware, and software to support a network of over 450 local offices and hand-held computers that will be used around the country. It is helpful to think of FDCA as being made up of four fundamental components: first, automated data collection, using hand-held devices to verify addresses, what we call address canvassing; second, automated data collection from respondents who fail to return the mail questionnaire, what we refer to as non-response followup [NRFU]; three, the operation and control system that tracks and manages decennial census's workflow; and, four, census operations infrastructure, which provides office automation and support for regional and local census offices.

In late 2007, the Deputy Director assessed the FDCA program and established an integrated program team charged with finalizing the FDCA requirements. This process was nearing completion when I arrived in early January. When Harris Corp. provided feedback at the end of January, the full scope of our problem came into focus. This process identified issues that raised concerns about the ability to complete development of all the operations initially planned for the FDCA system in time for the 2010 census.

We now understand that the problem with the FDCA program was due, in part, to a lack of effective communication between the

Census Bureau and the prime contractor for FDCA, and to difficulties in developing the full scope of the project within deadlines. We did not effectively convey to the contractor the complexity of census operations and the detailed requirements that needed to be fulfilled in order to complete the operations that FDCA covers. Once these detailed requirements were completely delineated, we had serious concerns about rising costs and our ability to complete a successful 2010 census if we continued developing the FDCA program as planned.

As we grappled with this program, I established a task force chaired by former Census Bureau Deputy Director William Baron, and made up of some of the Census Bureau's and the Department's best people, as well as representatives from MITRE, to help us develop a strategy for moving forward.

The task force outlined four options for moving forward. All of these options call for using the hand-held computers for address canvassing, and we are continuing to work to ensure this requirement is met.

For the other major components of FDCA, each of the options considered a combination of responsibilities divided between the contractor and census in terms of capabilities, expertise, staffing, timing, and cost.

The work of the task force was reviewed by an expert panel established by the Secretary and made up of two former Census Bureau directors, a former Associate Director of the Census Bureau, information technology experts, and a former Member of Congress. After receiving input from the expert panel members, the Secretary decided that we should move to a paper-based NRFU operation. This is a decision I fully support.

The Census Bureau will implement NRFU and take responsibility for the regional census center infrastructure. Our contractor will continue developing the address canvassing operation utilizing the hand-held computers and develop the operations control system. This option increases our control of 2010 census systems development, and the Census Bureau knows how to develop and implement a paper-based NRFU, and our decisions to do so again give us flexibility and minimizes the risks that we identified in FDCA program.

At the same time, the plan allows us to leverage global positioning system technologies by using hand-held computers in the address canvassing operation. This will improve the accuracy of our address list, which is fundamental to an accurate census.

Since becoming Director in January, addressing the problems associated with the FDCA program has been my highest priority. With the replan outlined today, I am confident we can put the 2010 census back on track.

Thank you for this opportunity. I look forward to answering any questions you may have.

Thank you.

[The prepared statement of Mr. Murdock follows:]

**PREPARED STATEMENT OF**
**STEVE H. MURDOCK**
**DIRECTOR**
**US CENSUS BUREAU**

***Plans for the 2010 Census: Progress on FDCA and DRIS***

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

**9 April 2008**

On behalf of the U.S. Census Bureau, Mr. Chairman, I would like to thank you and the members of the Committee for this opportunity to discuss our plans for the 2010 Decennial Census. We would like to thank the Congress, particularly the members of this Committee, for their support of the Census Bureau. Your continued support will enable us to undertake a complete and accurate census.

I'm pleased to be joined by Deputy Director Jay Waite today. He will be bringing you up to date on the Data Response Integration System, and the rest of our 2010 Census programs. I am going to focus my remarks on the Field Data Collection Automation (FDCA) program.

The FDCA program was originally designed to supply the information technology infrastructure, support services, hardware and software to support a network of over 450 local offices and hand-held computers (HHCs) that will be used around the country. It is helpful to think of FDCA as being made up of four fundamental components:

1. Automated data collection using handheld devices to verify addresses, called Address Canvassing or AdCan.

2. Automated data collection from respondents who failed to return the mail questionnaire, referred to as nonresponse follow-up, or NRFU.

3. The Operations Control System (OCS) that tracks and manages Decennial Census workflow; and

4. Census Operations Infrastructure, which provides office automation and support for Regional and Local Census Offices.

In late November 2007, as a result of concerns raised regarding the ability to meet deadlines and budgets, the Deputy Director of the Census Bureau initiated a comprehensive assessment to determine the status of the program and to better understand any issues or concerns as the program approaches key 2010 Census milestones. This assessment included a series of wide-ranging meetings with Census Bureau staff directly involved in the FDCA program. The Deputy Director also met with Harris Corporation, the company developing the FDCA system, and Mitre Corporation, an information technology firm under contract with the Census Bureau. Mitre's role is to provide an internal, independent assessment of the information technology systems in the decennial programs and also IT systems in the bureau.

An Integrated Program Team (IPT) made up of key, high ranking 2010 Census managers, was established and tasked with producing the final set of FDCA program requirements by January 16, 2008. This process was nearing completion when I arrived in early January. When Harris Corporation provided feedback at the end of January, the full scope of our problem came into focus.

This process identified issues that raised concerns about the ability to complete development of all of the operations initially planned for the FDCA system in time for the 2010 Census. These included:

HHC Functionality -- Assessments of the Address Canvassing operation for the 2008 Dress Rehearsal revealed that there were difficulties in obtaining efficient transmission to and from the hand-held computer, resulting in enumerator downtime. In addition, the HHCs did not function well if the number of addresses in the enumerator assignment area was too large.

OCS Requirements -- The sheer volume of requirements, as well as the complexity of the operations that FDCA supports, contribute to problems that are particularly significant in the development of the OCS. Contract deliverables in the fall indicated that problems remained despite steps taken to clarify and strengthen the process we use to define contract requirements.

We now understand that the problem with the FDCA program was due in part to a lack of effective communication between the Census Bureau and the prime contractor for FDCA, and to difficulties in developing the full scope of the project within deadlines. We did not effectively convey to the contractor the complexity of census operations, and the detailed requirements that needed to be fulfilled in order to complete the operations that FDCA covers. Once these detailed requirements were completely delineated, we had serious concerns about rising costs and our ability to complete a successful 2010 Census if we continued developing the FDCA program as planned.

As we grappled with this problem, I established a task force, chaired by former Census Bureau Deputy Director William Barron and made up of some of the Census Bureau's and the Department's best people, as well as representatives from MITRE, to help us develop a strategy for moving forward.

The task force outlined four options for moving forward. All of these options called for using the handheld computers for Address Canvassing, and we are continuing to work to ensure this requirement is met. For the other major components of FDCA each of the options considered a combination of responsibilities between Harris and Census in terms of capabilities, expertise, staffing, timing and costs.

The work of the task force was reviewed by an Expert Panel established by the Secretary and made up of two former Census Bureau Directors, a former Associate Director of the Census Bureau, information technology experts, and a former Member of Congress.

After receiving input from the Expert Panel members, the Secretary decided that we should move to a paper-based NRFU operation. This is a decision I fully support. The Census Bureau will implement NRFU and take responsibility for the Regional Census Center infrastructure. Our contractor will continue developing the Address Canvassing operation utilizing the handheld computers and develop the Operations Control System. This option increases our control of 2010 Census systems development. The Census Bureau knows how to develop and implement a paper-based NRFU, and our decision to do so again gives us flexibility and minimizes the risks we identified in the FDCA program. At the same time, the plan allows us to leverage Global Positioning System technologies by using handheld computers in the Address Canvassing operation. This will improve the accuracy of our address list, which is fundamental to an accurate census.

Since becoming Director in January, addressing the problems associated with the FDCA program has been my highest priority. With the replan outlined today, I am confident we can put the 2010 Census back on track.

Thank you for this opportunity. I am happy to answer any of your questions.

Mr. CLAY [presiding]. Thank you so much, Mr. Director.

We will now recognize Mr. Waite for 5 minutes.

**STATEMENT OF PRESTON JAY WAITE**

Mr. WAITE. Mr. Chairman and committee members, thank you for the opportunity to discuss our plans for the 2010 census. I would also like to thank the committee for their continued support in the Census Bureau programs.

Since Director Murdock has outlined our plans to move forward with activities related to the field data collection automation system, I will talk for a few moments about vital aspects of the 2010 census that are underway.

We have incorporated significant improvements over past census in our automation infrastructure. This includes the 2010 Decennial response integration system [DRIS]. The purpose of the DRIS contract, which was awarded in 2005 to the Lockheed Martin Corp., is to ensure accurate and protected collection and storage of census responses. I am pleased to report that this contract is on schedule and actually under budget.

Our plans for the 2010 census also include important structural improvements and enhancements to the Nation's road map. Our MAF/TIGER enhancement program is a multi-year effort to realign our TIGER data base, which is basically an electronic map of street center lines, with the GPS capabilities and modernized processing systems.

We have contracted that with the Harris Corp. That contract is 99.9 percent complete. All of the streets have been realigned. We just have two or three counties that we are trying to verify at the end. We do not expect an issue. Certainly by the end of this year this contract will be complete and all of our maps will be aligned consistent with GPS technology.

This activity is vital because the census must count every person living in America once and only once and in the right place. The MAF tells us where the housing units are located and furnishes a lists of addresses to contact, as well as providing a reasonable means of organizing our workload into non-response followup and tabulation operations. The accuracy and success of the census ultimately depends on the accuracy and completeness of the master address file.

The success of the 2000 census also depends upon the American Community Survey, the largest household survey in the United States. The ACS replaces the traditional decennial census long form. In 2005 we began full implementation of the survey. In 2006 we incorporated group quarters, fulfilling our commitment to replace the long form in 2010. This year we will reduce the first detailed information for areas of population with 20,000 or greater.

A sure sign that census date is approaching is the expansion of our field activities. All 12 of our regional census centers are now open for business. We have hired the first 48 partnership staff and will hire an additional 72 in May. We have provided 11,000 communities with detailed maps and address lists for them to help us in what we call our LUCA program, local updated census addresses. By working with local governments, we learn of new housing construction, as well as demolitions and conversion.

In February 2009 we will conduct the address canvassing operation nationwide for nearly 134 million housing units across the country. In addition, we will begin to validate a list of approximately 86,000 group quarters. Also in 2009 we expect to employ 680 more people for the partnership program, most of whom will be specialists working in the field.

With similar staffing levels for census 2000 we established approximately 140,000 partnerships, and our goals for this program are no less ambitious this time around. We believe these efforts were the turning point in our reducing—in fact, stopping—the steady decline of the response rates that we had observed over the decades.

We rely on participation and cooperation of literally thousands of communities throughout the United States. Reaching residents in those communities, especially the hard to count, is one of the major goals of the census and the fulfillment of our Constitutional obligation.

Our partners, advisory committees, national organizations, faith-based community, elected officials such as yourself, local community and neighborhood leaders, and even the go-to person at the corner shop all are integral to this effort. The Census Bureau is planning an integrated communication and promotional and marketing program to incorporate the partnerships and the advertising and the outreach.

This is just a brief overview of several important aspects of the 2010 census.

I thank you for the opportunity to talk to you on the 2010 census, and I will be happy to answer any questions you may have.

[The prepared statement of Mr. Waite follows:]

**PREPARED STATEMENT OF**
**PRESTON JAY WAITE**
**DEPUTY DIRECTOR**
**U.S. CENSUS BUREAU**

***Plans for the 2010 Census: Progress on FDCA and DRIS***

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

**9 April 2008**

Mr. Chairman, and Committee members, thank you for the opportunity to discuss our plans for the 2010 Census. I would also like to thank the Committee for their continued support of the Census Bureau's programs, which will enable us to conduct a complete and accurate census.

Since the Director has outlined our plans to move forward with activities related to the Field Data Collection Automation system, I would like to talk about other vital aspects of the 2010 Census that are underway.

As part of the plan for the short-form-only census, we have incorporated significant improvements over past censuses, notably automation and infrastructure. These efforts include the 2010 Decennial Response Integration System (DRIS). The purpose of the DRIS contract, which was awarded in 2005 to the Lockheed Martin Corporation, is to ensure accurate and protected collection and storage of census responses. We are confident that this approach will work based on our experience from Census 2000. I am pleased to report that the contract is on schedule and on budget.

The plans for the 2010 Census also include important structural improvements and enhancements to the Nation's road map: the Master Address File (MAF) and the Topologically Integrated Geographic Encoding and Referencing mapping system, better known as TIGER.

Each of these activities is interdependent; the success of each component contributes to the overall success of the 2010 Decennial Census. Specifically, the MAF/TIGER Enhancement Program is a multi-year effort to collect and correct the locations of streets and other geographic information. Important objectives of the program include realigning the TIGER map to take advantage of GPS capabilities, modernizing the processing system, and expanding geographic partnerships. We are working with our contractor to complete the effort to realign the street-centerlines for all 3,232 counties throughout the U.S. and its island areas by the end of FY 2008 and that is on track. In FY 2009, we will conduct closeout activities for the realignment contract and work to maintain the fruitful geographic partnerships we have established with many state and local governments, and also evaluate the success of the realignment effort.

This activity is vital because the Census must count every person living in America, once and only once, and count every person at the correct address. The MAF tells us where the housing units are located and not only furnishes a list of addresses to contact, but also provides a reasonable means of organizing our workload in the non-response follow-up and tabulation operations. Ensuring the accuracy of the addresses is essential for the fair distribution of representation and resources, as they are distributed according to geographies — states, tribal governments, counties, cities, towns, census tracts, and blocks. In other words, the accuracy and the success of the census—both the short-form-only decennial census and the American Community Survey (ACS)—ultimately depend upon the accuracy and completeness of the MAF and TIGER systems.

The success of the 2010 Decennial Census Program also depends upon the American Community Survey (ACS), the largest household survey in the United States, with an overall sample of approximately three million households per year or about 250,000 households per month. The ACS replaces the traditional decennial census long-form data collection and will provide annual detailed socio-economic information for every state, tribal government, county, city, and neighborhood throughout the United States. In 2005, we began full implementation for the survey, and in 2006 we incorporated group quarters, such as nursing homes, college dormitories, and jails, into the survey—fulfilling our commitment to replace the long-form in 2010. To date, we have released data for areas with populations of 65,000 or more. This year, we will release the first detailed information for areas with populations of 20,000 or more.

An important milestone has been reached in that all 12 Regional Census Centers and the Puerto Rico Area Office are now open for business. We have hired the first 48 partnership staff and will hire an additional 72 in May. We have provided over 11,000 participating governments with materials for the Local Update of Census Addresses (LUCA) program. LUCA plays a critical role in our efforts to achieve an accurate count and is one of our most important partnerships. By working with the local governments we learn of new housing construction, as well as demolitions and conversions, information fundamentally important to counting everyone.

Our plans for FY 2009 demonstrate our commitment to fulfilling our constitutional mandate. In FY 2009 major field operations will be well underway. For example, in FY 2009, we will conduct the Address Canvassing operation for nearly 134 million housing units across the Nation. In addition, we will begin to validate the list of about 86 thousand group quarters. In FY 2009, we expect to deploy 680 people for the partnership program – most of whom will be specialists working in the field. With similar staffing levels for Census 2000, we established approximately 140,000 formal partnerships, and our goals for the program are no less ambitious this time around.

As you know, the census is not merely a federal effort. We rely on the participation and cooperation of literally thousands of communities throughout the United States. Reaching the residents of these communities, especially the hard-to-count, is the ultimate goal of the census and the fulfillment of the constitutional obligation. Our partners—advisory committees, national organizations, the faith-based community, elected officials, community and neighborhood leaders, and even the go-to person at the corner shop—are integral to this effort. The Census Bureau is planning an integrated communication, promotional, and marketing effort, incorporating partnerships and advertising, to reach every community.

The contract for the integrated communications plan was awarded to Draftfcb on September 19, 2007. The Draftfcb 2010 Census team is made up of companies representing a range of minority and specialty audiences. The 2010 Census campaign is designed to increase mail response, improve accuracy/reduce the differential undercount, and improve cooperation with enumerators. The communication strategy will be integrated with the Census Bureau's decennial census operations, partnership outreach and internal media and public relations activities to ensure that consistent messages are delivered seamlessly at every stage of the process.

Draftfcb is scheduled to present us with a draft of the overall communications plan this week. We intend to share the draft plan with our Race and Ethnic Advisory Committees on May 1 and the 2010 Advisory Committee on May 15.

This is just a brief overview of several important aspects of the 2010 Census that are moving forward on schedule. Thank you for the opportunity to talk about the 2010 Census. I will be happy to answer any questions you might have.

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

Mr. Sciré, you are recognized for 5 minutes.

**STATEMENT OF MATHEW SCIRÉ**

Mr. SCIRÉ. Mr. Chairman, members of the committee and subcommittee, thank you for the opportunity to be here today to discuss the 2010 decennial census.

With me today is David Powner, Director with GAO's information technology team, who has been reviewing the Census Bureau's major information technology investments.

As you know, we recently designated the decennial census as a high-risk area. We did so because of longstanding weaknesses in technology management, operational planning, and cost estimation, and because of uncertainty over dress rehearsal plans and the ultimate cost of the Decennial.

Last week the Department and the Bureau announced major changes to how it plans to conduct the 2010 census. This redesign will have significant implications for the Decennial operations and costs. The redesign also highlights, again, the critical need for aggressive management of technology investments.

First, the redesign will require that the Bureau quickly develop and test a paper-based non-response followup operation. This will require different operations, printing, and training programs. Also, because this change comes late in the decade, the Bureau will need to provide assurance that this huge operation and its linkages with other operations and systems will be tested in the absence of a full dress rehearsal.

Second, the redesign calls for using hand-held computers for the address canvassing operation, except for in large assignment areas. This will require additional planning for operations, training, and equipment in those areas.

Also, there remains some uncertainty as to how the Bureau will work around potential inabilities to update intelligence address lists once address canvassing has been completed. In this event, the Bureau may elect to deliver census forms by hand rather than via mail. It is critical that the Bureau ensure that the technology for conducting address canvassing is a success, and that it tests the design for large assignment areas and the linkages among address canvassing and other operations.

Third, the redesign will result in additional cost. It is important to note that, having chosen to go forward with its original design, the Bureau estimated that the cost of the Decennial would be up to $2.3 billion more than it previously estimated. In comparison, the cost of the redesigned Decennial is expected to be up to $3 billion more than the previous census estimate. Regardless, it is not clear that these cost estimates fully recognize changes in expected productivity of field workers, and the ultimate cost of the Decennial is uncertain.

We recommended that the Bureau use tools such as comprehensive integrated project plan, sensitivity analysis, and other tools that would help the Bureau better measure and manage the costs associated with individual operations. To provide the Congress with credible, accurate life cycle cost estimates, it will be important for the Bureau to demonstrate that its cost estimates reflect the most

current understanding of important underlying assumptions, including productivity.

Finally, the redesign makes more urgent the need for the Bureau to address significant and longstanding weaknesses in managing information technology. Going forward, it will be important for the Bureau to aggressively manage its key information technology investments.

I will turn it over to Mr. Powner to expand on this, but before I do I want to thank you again for the opportunity to speak today and, as in the past, we look forward to supporting the committee's efforts.

I would be glad to take any questions that you may have.

[The prepared statement of Mr. Sciré follows:]

United States Government Accountability Office

GAO

Testimony

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

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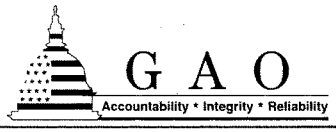
# CENSUS 2010

# Census at Critical Juncture for Implementing Risk Reduction Strategies

Statement of Mathew Sciré
Director, Strategic Issues

David A. Powner
Director, Information Technology Management Issues




GAO-08-659T

April 9, 2008

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# Highlights

Highlights of GAO-08-659T, a testimony for Chairmen, Committee on Oversight and Government Reform and the Subcommittee on Information Policy, Census, and National Archives, House of Representatives

## 2010 CENSUS

## Census at Critical Juncture for Implementing Risk Reduction Strategies

### Why GAO Did This Study

In 2007, the U.S. Census Bureau (Bureau) estimated the 2010 Census would cost $11.5 billion, including $3 billion on automation and technology. At a March hearing, the Department of Commerce (Commerce) stated that the Field Data Collection Automation (FDCA) program was likely to incur significant cost overruns and announced a redesign effort. At that time, GAO designated the 2010 Decennial Census as high risk, citing long-standing concerns in managing information technology (IT) investments and uncertain costs and operations. This testimony is based on past work and work nearing completion, including GAO's observation of the address canvassing dress rehearsal. For IT acquisitions, GAO analyzed system documentation, including deliverables, cost estimates, other acquisitions-related documents, and interviewed Bureau officials and contractors. This testimony describes the implications of redesign for (1) dress rehearsal and decennial operations, (2) IT acquisitions management, and (3) Decennial Census costs.

### What GAO Recommends

In its reports, GAO has recommended that the Bureau improve acquisition management capabilities, operational planning, cost estimation, and performance measurement. The Bureau agreed with most of these recommendations, but has not fully implemented them.

To view the full product, including the scope and methodology, click on GAO-08-659T. For more information, contact Mathew Scirè at (202) 512-6806 or sciremj@ gao.gov or David A. Powner at (202) 512-9286 or pownerd@gao.gov.

### What GAO Found

The Decennial Census is at a critical stage in the 2008 Dress Rehearsal, in which the Bureau has its last opportunity to test its plans for 2010 under census-like conditions. Last week Commerce announced significant changes to the FDCA program. It also announced that it expected the cost of the decennial to be up to $3 billion greater than previously estimated. The redesign will have fundamental impacts on the dress rehearsal as well as 2010 Census operations. Changes this late in the decade introduce additional risks, making more important the steps the Bureau can take to manage those risks. The content and timing of dress rehearsal operations must be altered to accommodate the Bureau's design. For example, Commerce has selected an option that calls for the Bureau to drop the use of handheld computers (HHCs) during the nonresponse follow-up operation, and the Bureau may now be unable to fully rehearse a paper-based operation. Additionally, reverting to a paper-based nonresponse follow-up operation presents the Bureau with a wide range of additional challenges, such as arranging for the printing of enumerator forms and testing the systems that will read the data from these forms once completed by enumerators.

Given the redesign effort, implementing GAO's recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. Further, it also needs to strengthen its risk management activities, including developing risk mitigation plans for significant risks and improving its executive-level governance of these acquisitions. The Bureau also needs to plan and conduct key tests, including end-to-end testing, to help ensure that decennial systems perform as expected.

According to the Bureau, the redesign and related revision of the FDCA program is expected to result in significant increases to the life cycle cost estimate for the 2010 Census. Even without considering the recent expected cost increases announced by the Bureau to accompany the redesign of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend from previous censuses. Previously, GAO recommended that the Bureau develop an integrated and comprehensive plan to manage operations. Specifically, to understand and manage the assumptions that drive the cost of the decennial census, GAO recommended, among other actions, that the Bureau annually update the cost of the 2010 Census and conduct sensitivity analysis on the $11.5 billion estimate. However, while the Bureau understands the utility of sensitivity analysis, it has not conducted such an analysis.

Mr. Chairmen and Members of the Committee and Subcommittee:

Thank you for the opportunity to participate in today's hearing. As you know, we recently designated the 2010 Decennial Census as a high-risk area, citing a number of long-standing and emerging challenges facing the census.[1] These include weaknesses in managing information technology (IT), operational planning, and cost estimating, as well as uncertainty over dress rehearsal plans and the ultimate cost of the census.

For 2010, the U.S. Census Bureau (Bureau) planned to make greater use of technology. Among other things, the Bureau planned to automate some of its field data collection activities as a way to reduce costs and improve data quality and operational efficiency. In fact, census workers used new technology, handheld computers (HHCs), during last spring's dress rehearsal operation. The Field Data Collection Automation (FDCA) program is a key IT acquisition that includes systems, equipment, and infrastructure for field staff to use in collecting census data for the 2010 Census. Last year, the Bureau had estimated this and other IT acquisitions would account for about $3 billion of the then-estimated $11.5 billion total cost of the census. Under the FDCA program the Bureau planned to use HHCs during operations such as address canvassing, nonresponse follow-up, and census coverage measurement. Last year, during address canvassing dress rehearsal field activities in California and North Carolina, both we and Bureau officials observed a number of performance problems with the HHCs (such as slow and inconsistent data transmissions).

At a March 2008 hearing, the Department of Commerce (Commerce) and the Bureau stated that the FDCA program was likely to incur significant cost overruns and said that a redesigning effort to get the Decennial Census back on track was under way. The Secretary of Commerce outlined several alternatives for redesigning this central technology investment, including possibly dropping the HHCs from the nonresponse follow-up operation. Last week, the Secretary chose to do just that. Additionally, he decided that the Bureau would reduce deployment of field technology infrastructure by the contractor, and have the contractor provide HHCs for address canvassing and develop the information system for controlling field operations.

[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).

As requested, our testimony today will call upon our past work, including our observation of the use of the HHCs in the address canvassing dress rehearsal, to provide a description of implications of the redesign for (1) dress rehearsal and Decennial Census operations, (2) IT acquisitions management, and (3) Decennial Census costs. Our remarks today are based primarily on reports that we issued from 2002 through December 2007 on the planning and development of the 2010 Census, as well as the results of work nearing completion. We visited census test sites in Queens, New York; several counties in rural south-central Georgia; Austin, Texas; and the Cheyenne Indian Reservation in South Dakota. During these visits we observed tests of the address canvassing operation, and we observed tests of the nonresponse follow-up operation. In May and June 2007, we observed address canvassing at the 2008 Dress Rehearsal in sites located in North Carolina and California. For IT acquisitions we analyzed system documentation, including project plans, deliverables, cost estimates, earned value management data, other acquisition-related documents, and we interviewed Bureau officials and contractors.

This work was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit 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.

## Results in Brief

The redesign of the Decennial Census carries with it significant implications for its key operations—address canvassing and nonresponse follow-up. Among these are the need for putting in place a paper-based nonresponse follow-up operation, devising approaches to manage workload from late mail returns, and ensuring that the automation for address canvassing works. This is not an exhaustive list of the numerous challenges the Bureau faces going forward. While these challenges are significant, it must be stressed that the Bureau could have faced overwhelming challenges had it chosen not to redesign the Decennial Census.

Given the redesign effort, implementing our recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. The Bureau also needs to strengthen its risk management activities, including developing risk mitigation plans for significant risks and improving its executive-level

governance of these acquisitions. The Bureau also needs to plan and conduct key tests, including end-to-end testing to help ensure that decennial systems perform as expected.

According to the Bureau, this redesign and subsequent revision of the FDCA program is expected to result in significant increases to the life cycle cost estimate for the 2010 Census. Last week, the Secretary testified that the Decennial Census could cost up to $3 billion more than the existing $11.5 billion total life cycle cost estimate. Even without considering the recent expected cost increases announced by the Bureau that will accompany the streamlining of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend compared to those from previous Censuses. In constant 2010 dollars, the estimated $11.8 billion cost of the 2010 Census, before the FDCA program redesign, represented a more than tenfold increase over the $1 billion spent on the 1970 Census. To manage the 2010 Census and contain costs, we previously recommended that the Bureau develop a comprehensive, integrated project plan for the 2010 Census that should include itemized estimated costs of each component, including a sensitivity analysis and an explanation of significant changes in the assumptions on which these costs were based.[2] In response, the Bureau provided us with the 2010 Census Operations and Systems Plan dated August 2007. This plan represented an important step forward at the time. It included inputs and outputs and described linkages among operations and systems. However, it did not include sensitivity analysis, risk mitigation plans, a detailed 2010 Census timeline, or itemized estimated costs of each component. With the redesign, this plan will need to be updated.

## Redesign Implications for Decennial Census Operations

The Decennial Census is at a critical stage in the 2008 Dress Rehearsal, in which the Bureau has its last opportunity to test its plans for 2010 under census-like conditions. The dress rehearsal features a mock Census Day, now set for May 1, 2008. Last year at this time, the Bureau carried out a major dress rehearsal operation—address canvassing—in which the Bureau updated address lists and collected global positioning coordinates for mapspots. The largest field operation of the dress rehearsal was to have begun this month. In this operation (nonresponse follow-up), field

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

staff were to conduct face-to-face interviews with households that did not mail back their questionnaires.

Prior to the redesigning effort, the Bureau had already changed its plans for the dress rehearsal, in part, to focus greater attention on the testing of technology. In a November 20, 2007, decision memo, the Bureau announced that it would delay Census Day for the dress rehearsal by 1 month, to May 1, 2008. The Bureau also listed a number of operations it no longer planned to rehearse, including group quarters enumeration and census coverage measurement. Also in February 2008, the Bureau announced that it would remove from the scope of the FDCA program contract the development of all systems and software associated with the census coverage measurement operation.

The redesign approach selected by the Secretary will require that the Bureau quickly develop and test a paper-based nonresponse follow-up operation. Any paper-based option has its own set of unique issues, such as setting up operations to support paper field data collection centers and seeking printing solutions for enumerator forms. Among other issues, decisions on a printing solution will need to be made soon. Although the Bureau has carried out paper-based operations before, in some cases they now involve new procedures and system interfaces that as a result of their exclusion from the dress rehearsal, will not be tested under census-like conditions. For nonresponse follow-up in 2010 the Bureau will be using newly developed systems for integrating responses and controlling workload. For example, the Bureau will need to rely on a newly developed system called the Decennial Response Integration System to identify households that have not returned census forms and for collecting the results of enumerators conducting nonresponse follow-up person interviews. Dropping the use of the HHCs for nonresponse follow-up and reverting to paper for that operation this late in the decade also precludes nonresponse follow-up from being fully tested in the dress rehearsal. Under the delayed dress rehearsal this operation was to begin next month, soon after households in dress rehearsal locations were to return their census forms. A paper operation requires different training, maps, and other material to be prepared prior to the operation. The Bureau has announced no specific plans for conducting field testing of certain key operations, such as nonresponse follow-up. Without sufficient testing, operational problems can go undiscovered and the opportunity to improve operations will be lost.

The redesign's move from the use of HHCs to a paper-based nonresponse follow-up operation may limit the Bureau's ability to reduce follow-up with

persons who are late in returning their census questionnaires. One of the primary advantages the Bureau cited for using HHCs was the ability, as late mail returns came in, to remove those addresses from enumerators' assignments—preventing enumerators from doing unnecessary work. According to the Bureau, in 2000 enumerators visited over 4 million households that had returned their census form late. In 2004, the Bureau tested the capability of an earlier prototype of the HHC to adjust workloads by identifying late mail returns. We reported in 2007 that based on these tests it appears that if the Bureau had possessed this capability during the 2000 Census, it could have eliminated the need to visit nearly 773,000 late-responding households and saved an estimated $22 million (based on our estimate that a 1 percentage point increase in workload could add at least $34 million in direct salary, benefits, and travel costs to the price tag of nonresponse follow-up[3]). The Director of the Census Bureau stated that he believes that the Bureau can still partially adjust enumerator workload to recognize late mail returns without the use of HHCs. To achieve this objective, the Bureau will need to specify the process it will use and conduct appropriate tests.

The redesign will also affect the 2010 Census address canvassing operation. The Secretary's decision to use the HHCs for the 2010 address canvassing operation means that certain performance issues with the handheld technology must be addressed promptly. Field staff experienced difficulties using the technology during the address canvassing dress rehearsal. For example, workers reported problems with HHCs when working in large assignment areas during address canvassing. The devices could not accommodate more than 720 addresses—3 percent of dress rehearsal assignment areas were larger than that. The amount of data transmitted and used slowed down the HHCs significantly. Identification of these problems caused the contractor to create a task team to examine the issues, and the team recommended improving the end-to-end performance of the mobile solution by controlling the size of assignment area data delivered to the HHC both for address canvassing and nonresponse follow-up operations. One specific recommendation was limiting the size of assignment areas to 200 total addresses. However, the redesign effort took another approach that uses laptops and the software application used for the American Community Survey to collect information in large assignment areas. It is not yet clear how this

[3] GAO, *2000 Census: Contingency Planning Needed to Address Risk That Pose a Threat to a Successful Census*, GAO/GGD-00-6 (Washington, D.C.: Dec. 14, 1999).

work-around will be carried out. Furthermore, the Bureau will need to define specific and measurable performance requirements for the HHCs as we recommended in January 2005.[4]

Another operational issue is the ability of the contractor to accept changes to its address files after it completes address canvassing updates. This could preclude the Bureau from conducting "restart/redo" operations for an area where the address file is discovered to be incorrect. This function is critical in developing an accurate and complete address list. Without the ability to update the mailing list for "restart/redo" operations, the Bureau would consider not mailing census questionnaires to addresses in that area and instead deliver census forms by hand. This has the potential to significantly increase costs.

## Redesign Implications for IT Acquisitions

The Bureau still needs to agree upon and finalize requirements for the FDCA program. In March 2006, we reported that the FDCA project office had not implemented the full set of acquisition management capabilities (such as project and acquisition planning and requirements development and management) that were needed to effectively manage the program.[5] For example, although the project office had developed baseline functional requirements for the acquisition, the Bureau had not yet validated and approved them. Subsequently, in October 2007, we reported that changes to requirements had been a contributing factor to both cost increases and schedule delays experienced by the FDCA program.[6] In June 2007, an assessment by an independent contractor of the FDCA program reported on requirements management problems—much like those we reported in March 2006. Similar to our recommendation, the independent assessors recommended that the Bureau immediately stabilize requirements by defining and refining them. The Bureau has recently made efforts to further define requirements for the FDCA program, and it has estimated that the revised requirements will result in significant cost increases. On January 16, 2008, the Bureau provided the FDCA contractor

[4] GAO, *2010 Census: Basic Design Has Potential, but Remaining Challenges Need Prompt Resolution*, GAO-05-9 (Washington, D.C.: Jan. 12, 2005).

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

[6] GAO, *Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems*, GAO-08-79 (Washington, D.C.: Oct. 5, 2007).

with a list of over 400 requirements for the FDCA program to reconcile. Although some of these new requirements will be dropped based on the Secretary's recent decision, many will still need to be addressed to ensure that FDCA will perform as needed.

Commerce and Bureau officials need to address critical weaknesses in risk management practices. In October 2007, we reported that the FDCA project had weaknesses in identifying risks, establishing adequate mitigation plans, and reporting risk status to executive-level officials.[7] For example, the FDCA project team had not developed mitigation plans that were timely or complete nor did it provide regular briefings on risks to senior executives. The FDCA project team's failure to report a project's risks to executive-level officials reduces the visibility of risks to executives who should be playing a role in mitigating them.

As of October 2007, in response to the cost and schedule changes, the Bureau decided to delay certain system functionality for FDCA. As a result, the operational testing that was to occur during the dress rehearsal period around May 1, 2008, would not include tests of the full complement of Decennial Census systems and their functionality. Operational testing helps verify that systems function as intended in an operational environment. In late 2007, according to Bureau officials, testing plans for IT systems were to be finalized in February 2008. Therefore, we recommended that the Bureau plan and conduct critical testing, including end-to-end testing of the Decennial Census systems.[8] As of March 2008, the Bureau still had not developed these test plans. In the recent program redesign, the Bureau included conducting end-to-end testing. The inability to perform comprehensive operational testing of all interrelated systems increases the risk that further cost overruns will occur, that decennial systems will experience performance shortfalls, or both.

Given the redesigning effort, implementing our recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. Further, it also needs to strengthen its risk management activities, including developing adequate risk mitigation plans for significant risks and improving its executive-level governance of these acquisitions. The Bureau also needs to

[7] GAO-08-79

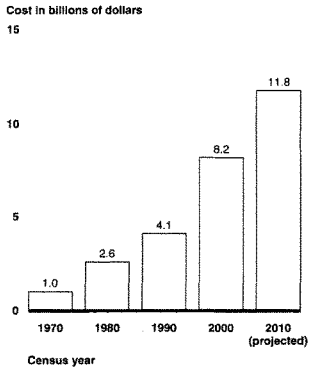
[8] GAO-08-79

plan and conduct key tests, including end-to-end testing, to help ensure that decennial systems perform as expected.

## Redesign Implications for Decennial Census Life Cycle Costs

Even without considering the recent expected cost increases announced by the Bureau to accommodate the redesign of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend from the 1970 Census. As shown in figure 1, the estimated $11.8 billion cost (expressed in constant 2010 dollars) of the 2010 Census, before the FDCA program redesign, represented a more than tenfold increase over the $1 billion spent on the 1970 Census. The 1970 Census was the first Census to rely on mailing census forms to households and asking for a mail return—a major part of the data collection. Although some of the cost increase could be expected because the number of housing units—and hence the Bureau's workload—has gotten larger, the cost growth has far exceeded the increase in the number of housing units. The Bureau estimated that the number of housing units for the 2010 Census would increase by almost 14 percent over Census 2000 levels.

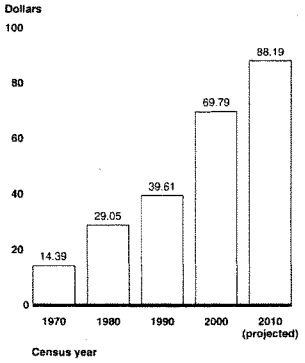
**Figure 1: Decennial Census Costs from 1970 through 2010 (Projected) in Constant 2010 Dollars**




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

As figure 2 shows, before the FDCA program redesign, the Bureau estimated that the average cost per housing unit for the 2010 Census was expected to increase by approximately 26 percent over 2000 levels, from $69.79 per housing unit to $88.19 per housing unit in constant 2010 dollars. When the projected cost increase that accompanies the FDCA program redesign is considered, the average cost per housing unit will increase by an even greater percentage.

**Figure 2: Decennial Census Average Cost per Housing Unit from 1970 through 2010 (Projected) in Constant 2010 Dollars**




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

Given the projected increase in spending, it will be imperative that the Bureau effectively manage the 2010 Census, as the risk exists that the actual, final cost of the census could be considerably higher than anticipated. Indeed, this was the case for the 2000 Census, when the Bureau's initial cost projections proved to be too low because of such factors as unforeseen operational problems and changes to the fundamental design. The Bureau estimated that the 2000 Census would cost around $5 billion. However, the final price tag for the 2000 Census was more than $6.5 billion, a 30 percent increase in cost. Large federal deficits and other fiscal challenges underscore the importance of managing the cost of the census, while promoting an accurate, timely census.

We have repeatedly reported that the Bureau would be challenged to control the cost of the 2010 Census. In January 2004, we reported that under the Bureau's approach for reengineering the 2010 Census, the Bureau might find it difficult to reduce operational risk because reengineering introduces new risks.[9] To manage the 2010 Census and contain costs, we recommended that the Bureau develop a comprehensive, integrated project plan for the 2010 Census that should include the itemized estimated costs of each component, including a sensitivity analysis and an explanation of significant changes in the assumptions on which these costs were based. In response, the Bureau provided us with the 2010 Census Operations and Systems Plan, dated August 2007. This plan represented an important step forward at the time. It included inputs and outputs and described linkages among operations and systems. However, it did not yet include sensitivity analysis, risk mitigation plans, a detailed 2010 Census timeline, or itemized estimated costs of each component. Going forward, it will be important for the Bureau to update its operations plan.

The assumptions in the fiscal year 2009 President's Budget life cycle cost estimate of $11.5 billion may not have included recent productivity data from last year's address canvassing dress rehearsal. According to the Bureau, initially, the cost model assumed productivity for address canvassing to be 25.6 addresses per hour for urban/suburban areas. However, results from the address canvassing dress rehearsal showed productivity of 13.4 addresses per hour for urban/suburban areas. While the life cycle cost estimate increased slightly to $11.5 billion in the fiscal year 2009 President's Budget, these increases were attributed to other factors and not to lower-than-expected canvassing productivity. Best practices call for cost model assumptions to be updated as new information becomes available. We previously reported that the life cycle cost estimate has not been updated to reflect changes in assumptions. In July 2006, we testified that the estimate had not been updated to reflect the results of testing conducted in 2004.[10] As the Bureau updates its estimate of the life cycle cost annually and as part of the redesigning effort, it will be important that it reflect changing assumptions for productivity and hours worked.

[9] GAO, *2010 Census: Cost and Design Issues Need to Be Addressed Soon*, GAO-04-37 (Washington, D.C.: Jan. 15, 2004).

[10] GAO-06-1009T

## Concluding Observations

Given its size and complexity, carrying out the Decennial Census presents significant challenges under any circumstances. Late changes in census plans and operations, long-standing weaknesses in IT acquisition and contract management, limited capacity for undertaking these critical management functions, scaling back of dress rehearsal activities, and uncertainty as to the ultimate cost of the 2010 Census puts the success of this effort in jeopardy. Managing these risks is critical to the timely completion of a reliable and cost-effective census. Implementing our recommendations would help the Bureau effectively manage the myriad of interrelated operations needed to ensure an accurate and complete count in 2010 (Bureau officials have agreed with many of our recommendations, but have not fully implemented them).

The dress rehearsal represents a critical stage in preparing for the 2010 Census. This is the time when the Congress and others should have the information they need to know how well the design for 2010 is likely to work, what risks remain, and how those risks will be mitigated. We have highlighted some of the risks today. Going forward, it will be important for the Bureau to specify how it will ensure that planned dress rehearsal operations will be successfully carried out, and how it will provide assurance that the largest operation—nonresponse follow-up—will be tested in the absence of a full dress rehearsal. Likewise, the Bureau will need to establish plans for working around limitations in the technology to be used in address canvassing operations. It is critical that the Bureau ensure that the technology for conducting address canvassing is a success.

The Bureau should implement prior recommendations in moving forward. Contractor-developed IT systems and deliverables need to be closely monitored to ensure that contractors are performing within budget. As we have stressed throughout this testimony and in our prior recommendations, the Bureau needs to practice aggressive project management and governance over both the IT and non-IT components. Further, it is essential that the Bureau implement our recommendations related to information technology. The Bureau must solidify the FDCA program requirements, strengthen risk management activities, and plan and conduct critical testing of the Decennial Census systems.

Mr. Chairmen, Census Day is less than 2 years away and address canvassing is 1 year away. The challenges we highlighted today call for effective risk mitigation by the U.S. Census Bureau, and careful monitoring and oversight by the Department of Commerce, the Office of Management and Budget, the Congress, GAO, and other key stakeholders. As in the

past, we look forward to supporting the committee and subcommittee's oversight efforts to promote an accurate and cost-effective census.

Mr. Chairmen, this concludes our statement. We would be glad to answer any questions you and the committee and subcommittee members may have.

## Contacts and Acknowledgments

If you have any questions on matters discussed in this testimony, please contact Mathew Scirè at (202) 512-6806 or sciremj@gao.gov or David A. Powner at (202) 512-9286 or pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. Other key contributors to this testimony include Signora May, Assistant Director; Mathew Bader; Thomas Beall; Jeffrey DeMarco; Elizabeth Hosler; Richard Hung; Anne Inserra; Andrea Levine; Lisa Pearson; Sonya Phillips; Cynthia Scott; Niti Tandon; Jonathan Ticehurst; Timothy Wexler; and Katherine Wulff.

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Mr. CLAY. Thank you, Mr. Sciré.

Mr. Powner, you may proceed.

**STATEMENT OF DAVID POWNER**

Mr. POWNER. Mr. Chairman, Ranking Member Davis, I just have two points to make this morning concerning moving forward and managing the technology acquisitions associated with the redesign.

First, a clear integrated schedule with critical milestones and key deliverables and tests needs to be clearly articulated so that oversight can be performed by the Department and by the Congress. Test planning and execution will be critical to this integrated schedule.

Second, a major concern we have is whether the Bureau has the capability to improve its program management and executive level governance of the technology. History tells us that sound management principles, both at the program level and at the Executive level, is not something that can just be switched on overnight. Because of this, I would like to stress the importance of having the Commerce Department executives play major governance roles as we approach this Decennial.

Thank you. I will look forward to your questions.

[The prepared statement of Mr. Powner follows:]

United States Government Accountability Office

GAO

Testimony

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

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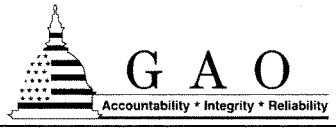
Wednesday, April 9, 2008

# CENSUS 2010

# Census at Critical Juncture for Implementing Risk Reduction Strategies

Statement of Mathew Sciré
Director, Strategic Issues

David A. Powner
Director, Information Technology Management Issues




GAO-08-659T

April 9, 2008

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# Highlights

Highlights of GAO-08-659T, a testimony for Chairmen, Committee on Oversight and Government Reform and the Subcommittee on Information Policy, Census, and National Archives, House of Representatives

## 2010 CENSUS

## Census at Critical Juncture for Implementing Risk Reduction Strategies

### Why GAO Did This Study

In 2007, the U.S. Census Bureau (Bureau) estimated the 2010 Census would cost $11.5 billion, including $3 billion on automation and technology. At a March hearing, the Department of Commerce (Commerce) stated that the Field Data Collection Automation (FDCA) program was likely to incur significant cost overruns and announced a redesign effort. At that time, GAO designated the 2010 Decennial Census as high risk, citing long-standing concerns in managing information technology (IT) investments and uncertain costs and operations. This testimony is based on past work and work nearing completion, including GAO's observation of the address canvassing dress rehearsal. For IT acquisitions, GAO analyzed system documentation, including deliverables, cost estimates, other acquisitions-related documents, and interviewed Bureau officials and contractors. This testimony describes the implications of redesign for (1) dress rehearsal and decennial operations, (2) IT acquisitions management, and (3) Decennial Census costs.

### What GAO Recommends

In its reports, GAO has recommended that the Bureau improve acquisition management capabilities, operational planning, cost estimation, and performance measurement. The Bureau agreed with most of these recommendations, but has not fully implemented them.

To view the full product, including the scope and methodology, click on GAO-08-659T. For more information, contact Mathew Scirè at (202) 512-6806 or sciremj@ gao.gov or David A. Powner at (202) 512-9286 or pownerd@gao.gov.

### What GAO Found

The Decennial Census is at a critical stage in the 2008 Dress Rehearsal, in which the Bureau has its last opportunity to test its plans for 2010 under census-like conditions. Last week Commerce announced significant changes to the FDCA program. It also announced that it expected the cost of the decennial to be up to $3 billion greater than previously estimated. The redesign will have fundamental impacts on the dress rehearsal as well as 2010 Census operations. Changes this late in the decade introduce additional risks, making more important the steps the Bureau can take to manage those risks. The content and timing of dress rehearsal operations must be altered to accommodate the Bureau's design. For example, Commerce has selected an option that calls for the Bureau to drop the use of handheld computers (HHCs) during the nonresponse follow-up operation, and the Bureau may now be unable to fully rehearse a paper-based operation. Additionally, reverting to a paper-based nonresponse follow-up operation presents the Bureau with a wide range of additional challenges, such as arranging for the printing of enumerator forms and testing the systems that will read the data from these forms once completed by enumerators.

Given the redesign effort, implementing GAO's recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. Further, it also needs to strengthen its risk management activities, including developing risk mitigation plans for significant risks and improving its executive-level governance of these acquisitions. The Bureau also needs to plan and conduct key tests, including end-to-end testing, to help ensure that decennial systems perform as expected.

According to the Bureau, the redesign and related revision of the FDCA program is expected to result in significant increases to the life cycle cost estimate for the 2010 Census. Even without considering the recent expected cost increases announced by the Bureau to accompany the redesign of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend from previous censuses. Previously, GAO recommended that the Bureau develop an integrated and comprehensive plan to manage operations. Specifically, to understand and manage the assumptions that drive the cost of the decennial census, GAO recommended, among other actions, that the Bureau annually update the cost of the 2010 Census and conduct sensitivity analysis on the $11.5 billion estimate. However, while the Bureau understands the utility of sensitivity analysis, it has not conducted such an analysis.

Mr. Chairmen and Members of the Committee and Subcommittee:

Thank you for the opportunity to participate in today's hearing. As you know, we recently designated the 2010 Decennial Census as a high-risk area, citing a number of long-standing and emerging challenges facing the census.[1] These include weaknesses in managing information technology (IT), operational planning, and cost estimating, as well as uncertainty over dress rehearsal plans and the ultimate cost of the census.

For 2010, the U.S. Census Bureau (Bureau) planned to make greater use of technology. Among other things, the Bureau planned to automate some of its field data collection activities as a way to reduce costs and improve data quality and operational efficiency. In fact, census workers used new technology, handheld computers (HHCs), during last spring's dress rehearsal operation. The Field Data Collection Automation (FDCA) program is a key IT acquisition that includes systems, equipment, and infrastructure for field staff to use in collecting census data for the 2010 Census. Last year, the Bureau had estimated this and other IT acquisitions would account for about $3 billion of the then-estimated $11.5 billion total cost of the census. Under the FDCA program the Bureau planned to use HHCs during operations such as address canvassing, nonresponse follow-up, and census coverage measurement. Last year, during address canvassing dress rehearsal field activities in California and North Carolina, both we and Bureau officials observed a number of performance problems with the HHCs (such as slow and inconsistent data transmissions).

At a March 2008 hearing, the Department of Commerce (Commerce) and the Bureau stated that the FDCA program was likely to incur significant cost overruns and said that a redesigning effort to get the Decennial Census back on track was under way. The Secretary of Commerce outlined several alternatives for redesigning this central technology investment, including possibly dropping the HHCs from the nonresponse follow-up operation. Last week, the Secretary chose to do just that. Additionally, he decided that the Bureau would reduce deployment of field technology infrastructure by the contractor, and have the contractor provide HHCs for address canvassing and develop the information system for controlling field operations.

[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).

As requested, our testimony today will call upon our past work, including our observation of the use of the HHCs in the address canvassing dress rehearsal, to provide a description of implications of the redesign for (1) dress rehearsal and Decennial Census operations, (2) IT acquisitions management, and (3) Decennial Census costs. Our remarks today are based primarily on reports that we issued from 2002 through December 2007 on the planning and development of the 2010 Census, as well as the results of work nearing completion. We visited census test sites in Queens, New York; several counties in rural south-central Georgia; Austin, Texas; and the Cheyenne Indian Reservation in South Dakota. During these visits we observed tests of the address canvassing operation, and we observed tests of the nonresponse follow-up operation. In May and June 2007, we observed address canvassing at the 2008 Dress Rehearsal in sites located in North Carolina and California. For IT acquisitions we analyzed system documentation, including project plans, deliverables, cost estimates, earned value management data, other acquisition-related documents, and we interviewed Bureau officials and contractors.

This work was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit 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.

## Results in Brief

The redesign of the Decennial Census carries with it significant implications for its key operations—address canvassing and nonresponse follow-up. Among these are the need for putting in place a paper-based nonresponse follow-up operation, devising approaches to manage workload from late mail returns, and ensuring that the automation for address canvassing works. This is not an exhaustive list of the numerous challenges the Bureau faces going forward. While these challenges are significant, it must be stressed that the Bureau could have faced overwhelming challenges had it chosen not to redesign the Decennial Census.

Given the redesign effort, implementing our recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. The Bureau also needs to strengthen its risk management activities, including developing risk mitigation plans for significant risks and improving its executive-level

governance of these acquisitions. The Bureau also needs to plan and conduct key tests, including end-to-end testing to help ensure that decennial systems perform as expected.

According to the Bureau, this redesign and subsequent revision of the FDCA program is expected to result in significant increases to the life cycle cost estimate for the 2010 Census. Last week, the Secretary testified that the Decennial Census could cost up to $3 billion more than the existing $11.5 billion total life cycle cost estimate. Even without considering the recent expected cost increases announced by the Bureau that will accompany the streamlining of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend compared to those from previous Censuses. In constant 2010 dollars, the estimated $11.8 billion cost of the 2010 Census, before the FDCA program redesign, represented a more than tenfold increase over the $1 billion spent on the 1970 Census. To manage the 2010 Census and contain costs, we previously recommended that the Bureau develop a comprehensive, integrated project plan for the 2010 Census that should include itemized estimated costs of each component, including a sensitivity analysis and an explanation of significant changes in the assumptions on which these costs were based.[2] In response, the Bureau provided us with the 2010 Census Operations and Systems Plan dated August 2007. This plan represented an important step forward at the time. It included inputs and outputs and described linkages among operations and systems. However, it did not include sensitivity analysis, risk mitigation plans, a detailed 2010 Census timeline, or itemized estimated costs of each component. With the redesign, this plan will need to be updated.

## Redesign Implications for Decennial Census Operations

The Decennial Census is at a critical stage in the 2008 Dress Rehearsal, in which the Bureau has its last opportunity to test its plans for 2010 under census-like conditions. The dress rehearsal features a mock Census Day, now set for May 1, 2008. Last year at this time, the Bureau carried out a major dress rehearsal operation—address canvassing—in which the Bureau updated address lists and collected global positioning coordinates for mapspots. The largest field operation of the dress rehearsal was to have begun this month. In this operation (nonresponse follow-up), field

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

staff were to conduct face-to-face interviews with households that did not mail back their questionnaires.

Prior to the redesigning effort, the Bureau had already changed its plans for the dress rehearsal, in part, to focus greater attention on the testing of technology. In a November 20, 2007, decision memo, the Bureau announced that it would delay Census Day for the dress rehearsal by 1 month, to May 1, 2008. The Bureau also listed a number of operations it no longer planned to rehearse, including group quarters enumeration and census coverage measurement. Also in February 2008, the Bureau announced that it would remove from the scope of the FDCA program contract the development of all systems and software associated with the census coverage measurement operation.

The redesign approach selected by the Secretary will require that the Bureau quickly develop and test a paper-based nonresponse follow-up operation. Any paper-based option has its own set of unique issues, such as setting up operations to support paper field data collection centers and seeking printing solutions for enumerator forms. Among other issues, decisions on a printing solution will need to be made soon. Although the Bureau has carried out paper-based operations before, in some cases they now involve new procedures and system interfaces that as a result of their exclusion from the dress rehearsal, will not be tested under census-like conditions. For nonresponse follow-up in 2010 the Bureau will be using newly developed systems for integrating responses and controlling workload. For example, the Bureau will need to rely on a newly developed system called the Decennial Response Integration System to identify households that have not returned census forms and for collecting the results of enumerators conducting nonresponse follow-up person interviews. Dropping the use of the HHCs for nonresponse follow-up and reverting to paper for that operation this late in the decade also precludes nonresponse follow-up from being fully tested in the dress rehearsal. Under the delayed dress rehearsal this operation was to begin next month, soon after households in dress rehearsal locations were to return their census forms. A paper operation requires different training, maps, and other material to be prepared prior to the operation. The Bureau has announced no specific plans for conducting field testing of certain key operations, such as nonresponse follow-up. Without sufficient testing, operational problems can go undiscovered and the opportunity to improve operations will be lost.

The redesign's move from the use of HHCs to a paper-based nonresponse follow-up operation may limit the Bureau's ability to reduce follow-up with

persons who are late in returning their census questionnaires. One of the primary advantages the Bureau cited for using HHCs was the ability, as late mail returns came in, to remove those addresses from enumerators' assignments—preventing enumerators from doing unnecessary work. According to the Bureau, in 2000 enumerators visited over 4 million households that had returned their census form late. In 2004, the Bureau tested the capability of an earlier prototype of the HHC to adjust workloads by identifying late mail returns. We reported in 2007 that based on these tests it appears that if the Bureau had possessed this capability during the 2000 Census, it could have eliminated the need to visit nearly 773,000 late-responding households and saved an estimated $22 million (based on our estimate that a 1 percentage point increase in workload could add at least $34 million in direct salary, benefits, and travel costs to the price tag of nonresponse follow-up[5]). The Director of the Census Bureau stated that he believes that the Bureau can still partially adjust enumerator workload to recognize late mail returns without the use of HHCs. To achieve this objective, the Bureau will need to specify the process it will use and conduct appropriate tests.

The redesign will also affect the 2010 Census address canvassing operation. The Secretary's decision to use the HHCs for the 2010 address canvassing operation means that certain performance issues with the handheld technology must be addressed promptly. Field staff experienced difficulties using the technology during the address canvassing dress rehearsal. For example, workers reported problems with HHCs when working in large assignment areas during address canvassing. The devices could not accommodate more than 720 addresses—3 percent of dress rehearsal assignment areas were larger than that. The amount of data transmitted and used slowed down the HHCs significantly. Identification of these problems caused the contractor to create a task team to examine the issues, and the team recommended improving the end-to-end performance of the mobile solution by controlling the size of assignment area data delivered to the HHC both for address canvassing and nonresponse follow-up operations. One specific recommendation was limiting the size of assignment areas to 200 total addresses. However, the redesign effort took another approach that uses laptops and the software application used for the American Community Survey to collect information in large assignment areas. It is not yet clear how this

[5] GAO, *2000 Census: Contingency Planning Needed to Address Risk That Pose a Threat to a Successful Census*, GAO/GGD-00-6 (Washington, D.C.: Dec. 14, 1999).

work-around will be carried out. Furthermore, the Bureau will need to define specific and measurable performance requirements for the HHCs as we recommended in January 2005.[4]

Another operational issue is the ability of the contractor to accept changes to its address files after it completes address canvassing updates. This could preclude the Bureau from conducting "restart/redo" operations for an area where the address file is discovered to be incorrect. This function is critical in developing an accurate and complete address list. Without the ability to update the mailing list for "restart/redo" operations, the Bureau would consider not mailing census questionnaires to addresses in that area and instead deliver census forms by hand. This has the potential to significantly increase costs.

## Redesign Implications for IT Acquisitions

The Bureau still needs to agree upon and finalize requirements for the FDCA program. In March 2006, we reported that the FDCA project office had not implemented the full set of acquisition management capabilities (such as project and acquisition planning and requirements development and management) that were needed to effectively manage the program.[5] For example, although the project office had developed baseline functional requirements for the acquisition, the Bureau had not yet validated and approved them. Subsequently, in October 2007, we reported that changes to requirements had been a contributing factor to both cost increases and schedule delays experienced by the FDCA program.[6] In June 2007, an assessment by an independent contractor of the FDCA program reported on requirements management problems—much like those we reported in March 2006. Similar to our recommendation, the independent assessors recommended that the Bureau immediately stabilize requirements by defining and refining them. The Bureau has recently made efforts to further define requirements for the FDCA program, and it has estimated that the revised requirements will result in significant cost increases. On January 16, 2008, the Bureau provided the FDCA contractor

[4] GAO, *2010 Census: Basic Design Has Potential, but Remaining Challenges Need Prompt Resolution*, GAO-05-9 (Washington, D.C.: Jan. 12, 2005).

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

[6] GAO, *Information Technology: Census Bureau Needs to Improve Its Risk Management of Decennial Systems*, GAO-08-79 (Washington, D.C.: Oct. 5, 2007).

with a list of over 400 requirements for the FDCA program to reconcile. Although some of these new requirements will be dropped based on the Secretary's recent decision, many will still need to be addressed to ensure that FDCA will perform as needed.

Commerce and Bureau officials need to address critical weaknesses in risk management practices. In October 2007, we reported that the FDCA project had weaknesses in identifying risks, establishing adequate mitigation plans, and reporting risk status to executive-level officials.[7] For example, the FDCA project team had not developed mitigation plans that were timely or complete nor did it provide regular briefings on risks to senior executives. The FDCA project team's failure to report a project's risks to executive-level officials reduces the visibility of risks to executives who should be playing a role in mitigating them.

As of October 2007, in response to the cost and schedule changes, the Bureau decided to delay certain system functionality for FDCA. As a result, the operational testing that was to occur during the dress rehearsal period around May 1, 2008, would not include tests of the full complement of Decennial Census systems and their functionality. Operational testing helps verify that systems function as intended in an operational environment. In late 2007, according to Bureau officials, testing plans for IT systems were to be finalized in February 2008. Therefore, we recommended that the Bureau plan and conduct critical testing, including end-to-end testing of the Decennial Census systems.[8] As of March 2008, the Bureau still had not developed these test plans. In the recent program redesign, the Bureau included conducting end-to-end testing. The inability to perform comprehensive operational testing of all interrelated systems increases the risk that further cost overruns will occur, that decennial systems will experience performance shortfalls, or both.

Given the redesigning effort, implementing our recommendations associated with managing the IT acquisitions is as critical as ever. Specifically, the Bureau needs to strengthen its acquisition management capabilities, including finalizing FDCA requirements. Further, it also needs to strengthen its risk management activities, including developing adequate risk mitigation plans for significant risks and improving its executive-level governance of these acquisitions. The Bureau also needs to

[7] GAO-08-79

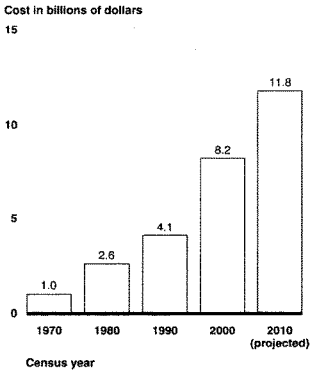
[8] GAO-08-79

plan and conduct key tests, including end-to-end testing, to help ensure that decennial systems perform as expected.

## Redesign Implications for Decennial Census Life Cycle Costs

Even without considering the recent expected cost increases announced by the Bureau to accommodate the redesign of the FDCA program, the Bureau's cost projections for the 2010 Census revealed an escalating trend from the 1970 Census. As shown in figure 1, the estimated $11.8 billion cost (expressed in constant 2010 dollars) of the 2010 Census, before the FDCA program redesign, represented a more than tenfold increase over the $1 billion spent on the 1970 Census. The 1970 Census was the first Census to rely on mailing census forms to households and asking for a mail return—a major part of the data collection. Although some of the cost increase could be expected because the number of housing units—and hence the Bureau's workload—has gotten larger, the cost growth has far exceeded the increase in the number of housing units. The Bureau estimated that the number of housing units for the 2010 Census would increase by almost 14 percent over Census 2000 levels.

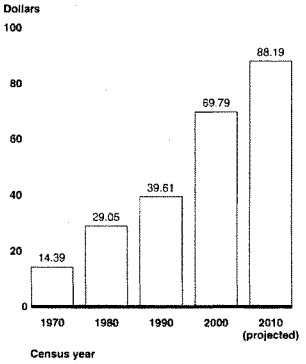
**Figure 1: Decennial Census Costs from 1970 through 2010 (Projected) in Constant 2010 Dollars**




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

As figure 2 shows, before the FDCA program redesign, the Bureau estimated that the average cost per housing unit for the 2010 Census was expected to increase by approximately 26 percent over 2000 levels, from $69.79 per housing unit to $88.19 per housing unit in constant 2010 dollars. When the projected cost increase that accompanies the FDCA program redesign is considered, the average cost per housing unit will increase by an even greater percentage.

**Figure 2: Decennial Census Average Cost per Housing Unit from 1970 through 2010 (Projected) in Constant 2010 Dollars**




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

Given the projected increase in spending, it will be imperative that the Bureau effectively manage the 2010 Census, as the risk exists that the actual, final cost of the census could be considerably higher than anticipated. Indeed, this was the case for the 2000 Census, when the Bureau's initial cost projections proved to be too low because of such factors as unforeseen operational problems and changes to the fundamental design. The Bureau estimated that the 2000 Census would cost around $5 billion. However, the final price tag for the 2000 Census was more than $6.5 billion, a 30 percent increase in cost. Large federal deficits and other fiscal challenges underscore the importance of managing the cost of the census, while promoting an accurate, timely census.

We have repeatedly reported that the Bureau would be challenged to control the cost of the 2010 Census. In January 2004, we reported that under the Bureau's approach for reengineering the 2010 Census, the Bureau might find it difficult to reduce operational risk because reengineering introduces new risks.[9] To manage the 2010 Census and contain costs, we recommended that the Bureau develop a comprehensive, integrated project plan for the 2010 Census that should include the itemized estimated costs of each component, including a sensitivity analysis and an explanation of significant changes in the assumptions on which these costs were based. In response, the Bureau provided us with the 2010 Census Operations and Systems Plan, dated August 2007. This plan represented an important step forward at the time. It included inputs and outputs and described linkages among operations and systems. However, it did not yet include sensitivity analysis, risk mitigation plans, a detailed 2010 Census timeline, or itemized estimated costs of each component. Going forward, it will be important for the Bureau to update its operations plan.

The assumptions in the fiscal year 2009 President's Budget life cycle cost estimate of $11.5 billion may not have included recent productivity data from last year's address canvassing dress rehearsal. According to the Bureau, initially, the cost model assumed productivity for address canvassing to be 25.6 addresses per hour for urban/suburban areas. However, results from the address canvassing dress rehearsal showed productivity of 13.4 addresses per hour for urban/suburban areas. While the life cycle cost estimate increased slightly to $11.5 billion in the fiscal year 2009 President's Budget, these increases were attributed to other factors and not to lower-than-expected canvassing productivity. Best practices call for cost model assumptions to be updated as new information becomes available. We previously reported that the life cycle cost estimate has not been updated to reflect changes in assumptions. In July 2006, we testified that the estimate had not been updated to reflect the results of testing conducted in 2004.[10] As the Bureau updates its estimate of the life cycle cost annually and as part of the redesigning effort, it will be important that it reflect changing assumptions for productivity and hours worked.

[9] GAO, *2010 Census: Cost and Design Issues Need to Be Addressed Soon*, GAO-04-37 (Washington, D.C.: Jan. 15, 2004).

[10] GAO-06-1009T

## Concluding Observations

Given its size and complexity, carrying out the Decennial Census presents significant challenges under any circumstances. Late changes in census plans and operations, long-standing weaknesses in IT acquisition and contract management, limited capacity for undertaking these critical management functions, scaling back of dress rehearsal activities, and uncertainty as to the ultimate cost of the 2010 Census puts the success of this effort in jeopardy. Managing these risks is critical to the timely completion of a reliable and cost-effective census. Implementing our recommendations would help the Bureau effectively manage the myriad of interrelated operations needed to ensure an accurate and complete count in 2010 (Bureau officials have agreed with many of our recommendations, but have not fully implemented them).

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The Bureau should implement prior recommendations in moving forward. Contractor-developed IT systems and deliverables need to be closely monitored to ensure that contractors are performing within budget. As we have stressed throughout this testimony and in our prior recommendations, the Bureau needs to practice aggressive project management and governance over both the IT and non-IT components. Further, it is essential that the Bureau implement our recommendations related to information technology. The Bureau must solidify the FDCA program requirements, strengthen risk management activities, and plan and conduct critical testing of the Decennial Census systems.

Mr. Chairmen, Census Day is less than 2 years away and address canvassing is 1 year away. The challenges we highlighted today call for effective risk mitigation by the U.S. Census Bureau, and careful monitoring and oversight by the Department of Commerce, the Office of Management and Budget, the Congress, GAO, and other key stakeholders. As in the

past, we look forward to supporting the committee and subcommittee's oversight efforts to promote an accurate and cost-effective census.

Mr. Chairmen, this concludes our statement. We would be glad to answer any questions you and the committee and subcommittee members may have.

## Contacts and Acknowledgments

If you have any questions on matters discussed in this testimony, please contact Mathew Scirè at (202) 512-6806 or sciremj@gao.gov or David A. Powner at (202) 512-9286 or pownerd@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this testimony. Other key contributors to this testimony include Signora May, Assistant Director; Mathew Bader; Thomas Beall; Jeffrey DeMarco; Elizabeth Hosler; Richard Hung; Anne Inserra; Andrea Levine; Lisa Pearson; Sonya Phillips; Cynthia Scott; Niti Tandon; Jonathan Ticehurst; Timothy Wexler; and Katherine Wulff.

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Mr. CLAY. Thank you very much for that testimony. We certainly look forward to those recommendations, and we will see if the Bureau will implement.

Mr. Providakes, you may proceed for 5 minutes.

**STATEMENT OF JASON F. PROVIDAKES**

Mr. PROVIDAKES. Good afternoon, Chairman Clay, Ranking Member Davis, Ranking Member Turner, and distinguished members of the committee. It is an honor for the MITRE Corp. to appear before you today to update you on the progress of development of the field data collection automation program [FDCA].

Accompanying me today is my colleague, Dr. Glen Hines, executive director of Civilian Agencies of the MITRE Center for Enterprise Modernization, as well.

Now, the MITRE Corp. is a not-for-profit organization that is chartered to work in the public interest. MITRE manages the three federally funded research development centers, one for the Department of Defense, one for the Federal Aviation Administration, and one for the Internal Revenue Service. A federally funded research and development center is a unique organization that assists the U.S. Government with scientific research and analysis, development and acquisition, and/or systems engineering and integration. FFRDCs are established and designed for the purpose of engaging with Government over the long term in addressing long-term complex problems like FDCA.

Federal acquisition regulations, FARDCs, operate in the public interest with objectivity, independence, and freedom from conflict of interest, with full disclosure of their affairs to their respective Government sponsors.

It is, in fact, our privilege to serve with talented engineers and other professionals who support the Census Bureau in its efforts to prepare and conduct a 2010 decennial census. Because the decennial census is such an enormous undertaking, the Census Bureau seeks to employ technology as a means toward achieving efficiencies and increased accuracy. It is important, however, to recognize that technology, alone, is not the panacea. Technology insertion must be accompanied by changes in roles of people and processes they implement. Planning, acquisition, coordinating the changes to this combination of people, processes, and technology is very complex and filled with risk.

Recognizing this reality, the Census Bureau sought in 2004 to obtain MITRE's assistance. Beginning in March 2004 MITRE assisted the Census Bureau with feasibility assessments, hand-held computers, recommendations for the FDCA acquisition strategy, analysis of risks, and mitigations to the FDCA program.

Next, from February 2005 until August 2007 MITRE was not involved in the management or the technical aspects of the FDCA program. MITRE did create an independent Government cost estate during this period.

From March 2007 until June 2007 MITRE was asked to perform risk assessments of the overall FDCA program, the hand-held computers, and security of these hand-held computers.

And then, since August 2007, MITRE has been asked to provide continuing acquisition and system engineering support to the FDCA program.

Also, the committee requested information on MITRE's involvement with the Decennial response integration system [DRIS]. MITRE has had little involvement with this program and has performed no assessments of DRIS. We, therefore, have no relevant documents or comments that we can submit.

We remain committed to helping the Census Bureau overcome the current challenges of FDCA program to enable a successful 2010 decennial census.

Thank you for inviting us to your hearing. I would be happy to answer all your questions.

[The prepared statement of Mr. Providakes follows:]

MITRE

House Committee on Oversight and Government Reform

and the

Subcommittee on Information Policy, Census, and National Archives

April 9, 2008

# 2010 Census: Progress on the Development of the Field Data Collection Automation (FDCA) Program and the Decennial Response Integration System (DRIS)

Jason F. Providakes, Ph.D.
Senior Vice President and General Manager
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# 1 Introduction

The MITRE Corporation is a not-for-profit organization chartered to work in the public interest. MITRE manages three Federally Funded Research and Development Centers (FFRDCs): one for the Department of Defense, one for the Federal Aviation Administration, and one for the Internal Revenue Service. A Federally Funded Research and Development Center (FFRDC) is a unique organization that assists the United States government with scientific research and analysis, development and acquisition, and/or systems engineering and integration. FFRDCs address long-term problems of considerable complexity, analyze technical questions with a high degree of objectivity, and provide creative and cost-effective solutions to government problems.

Governed by Part 35.017 of the Federal Acquisition Regulations, FFRDCs' operate in the public interest with objectivity, independence, freedom from conflict of interest, and full disclosure of their affairs to their respective sponsors.

Because the Decennial Census is such an enormous undertaking, the Census Bureau has often turned to technology-based solutions to improve quality and efficiency. However, technology itself is not a panacea. The technology requires changes in the roles of the people and the processes they implement. Planning, acquisition, and coordinating the changes to this combination of people, processes, and technology is very complex and filled with risk. Because of this complexity, the Census Bureau requested MITRE assistance in 2004.

MITRE has been working for the Census Bureau since 2004. MITRE's support to the Census Bureau on FDCA falls into roughly four phases: preparation, cost estimation, independent assessments, and support.

**FDCA Preparation**: For about nine months beginning in March 2004, MITRE assisted the Census Bureau with feasibility assessments of handheld computers, recommendations for the FDCA acquisition strategy, and analysis of risks and mitigations to the FDCA program. This is described in further detail in Section 2.

**FDCA Cost Estimation**: From February 2005 until August 2007, MITRE's role on FDCA was limited to developing Independent Government Cost Estimates and assisting with the evaluation of cost proposals. This is described in further detail in Section 3.

**FDCA Independent Assessments**: From March 2007 through June 2007, MITRE was asked to perform assessments of the overall FDCA program, the handheld computers, and the security of the handheld computers. This is described in further detail in Section 4.

**FDCA Support**: Since August 2007, MITRE has been asked to provide acquisition and system engineering support to the FDCA program. This is described in further detail in Section 5.

The Committee also requested information on MITRE's involvement with the Decennial Response Integration System (DRIS). MITRE has had little direct involvement with this program and has performed no assessments of DRIS, so MITRE has no products or comments to provide about the program.

# 2 FDCA Preparation

MITRE initiated work on the Field Data Collection Automation (FDCA) program on March 4, 2004 when it was asked to conduct an independent assessment of the feasibility of using a handheld computer for field operations for the 2010 Decennial Census. MITRE surveyed stakeholders within Census Bureau headquarters, reviewed 2010 planning documents, and applied MITRE experience from programs and technologies relevant to field automation. MITRE developed an initial, quick-look report in which the team stated that using handheld computers was technically feasible, but there were many risks. MITRE also delivered a set of recommendations on an acquisition strategy for handheld computers.

On July 28, 2004, MITRE delivered an Independent Assessment of the Use of Handheld Computers for the 2010 Decennial Census that was based on additional research and observations by MITRE engineers on the operation of a prototype handheld computer that was developed by the Census Bureau's Technologies Management Office. Non-response follow-up (NRFU) field operations were observed in Queens, New York and Thomasville, Georgia as part of the 2004 field test. MITRE concluded that the handheld computer approach was technologically feasible, but that an evaluation of operational feasibility depended on the final scope and concept of operations for the 2010 Decennial Census. Included in the report was a Roadmap for Mitigating Risks and Increasing the Accuracy of Costs and Benefits.

MITRE was additionally tasked to assist in the development of several documents that helped define the early stages of the FDCA program. These documents included a program alternatives analysis, program scope, processes, and automation considerations. The scope and alternatives documents were prepared as part of a bidders library to assist with information transfer between the Census Bureau and potential bidders. MITRE assisted the Chief of the Acquisition Division in planning and conducting an Industry Day to provide additional information to potential bidders. Subsequently, discussions were held between individual vendors and Census Bureau personnel to answer questions regarding procurement and to improve understanding of the Census field operations.

Following the Roadmap contained in the Independent Assessment of the Use of Handheld Computers, MITRE conducted further analyses and presented the results to the Associate Director for the Decennial Census in a series of Checkpoint reviews. Three reviews were conducted on September 30, 2004, November 30, 2004, and January 12, 2005. The Checkpoint reviews were used to identify the risks and the costs of risk mitigation activities for different levels of automation of field operations.

During the summer and fall of 2004, MITRE was asked to assist in developing the scope and identifying deliverables for the FDCA Statement of Work that would be included with the Request for Proposals as part of the FDCA contracting process. MITRE also assisted with preliminary planning of the structure and procedures for the FDCA Program Management Office (PMO) and the schedule for the procurement and fielding of the handheld computers. MITRE's support to the PMO was discontinued following the arrival of a new FDCA Program Manager in January 2005.

# 3 FDCA Cost Estimation

MITRE was requested to develop the Independent Government Cost Estimate for the FDCA procurement. MITRE used the results of the Checkpoint analyses to determine the scope of the procurement. MITRE developed a detailed cost model that addressed the full range of services that would be requested from the winning vendor. Because a set of FDCA requirements had not been developed (and MITRE was not involved in requirements definition), MITRE had to postulate a systems architecture to support the cost estimate. MITRE applied the assumptions (e.g.: number of local Census offices, number of enumerators) that were contained in the budget model maintained by the Census Decennial Management Division (DMD). MITRE conducted research on available and expected handheld computer technology to estimate a unit cost for the handheld computers. Estimates of software costs were based on the experiences of the Census Technologies Management Office in developing software that was used for the 2004 Field Test. Estimates of the magnitude of software development for the FDCA system were used with commercial software cost estimating models to estimate the level of effort needed to develop the software in a commercial environment. Expected labor rates were applied to the estimated level of effort to determine the expected costs.

MITRE was not involved in evaluation of the technical proposals submitted by the three competing vendor teams in early 2006. MITRE did, however, assist with evaluation of the cost proposals and compared them against the final Independent Government Cost Estimate.

During June and July 2007, MITRE was requested by the Chief of the Acquisition Division and the FDCA PMO to assist with the cost evaluation of Engineering Change Proposals (ECPs) received from Harris. The ECPs were changes to the basic contract that resulted in cost decreases and increases. MITRE provided comments to the PMO to assist in negotiating the final price of the ECPs.

# 4 FDCA Independent Assessments

In March 2007, the Associate Director for the Decennial Census requested that MITRE conduct an independent "Red Team" assessment of the FDCA program after Harris reported that previously established milestones and budgets were at risk due to the unanticipated number of actual requirements emerging from detailed requirements decomposition. The MITRE Red Team conducted confidential, non-attributable interviews of Census Bureau personnel and their contractors and other stakeholders to develop an assessment of the root causes of the program variances. MITRE reviewed program management procedures and documentation, requirements, budgets, schedules, resources, work breakdown structures, and other related information. MITRE was asked to develop recommendations for corrective actions. Interim versions of the findings were briefed to the Associate Director, and the final version of the Red Team report was delivered to both the Associate Director and the Deputy Director on June 6, 2007. The report concluded that "FDCA is at significant risk of cost and schedule overruns, omission of essential requirements, and increased oversight unless major changes are made quickly." A set of recommendations was provided for each of the findings in the report.

In April 2007, MITRE was tasked to examine the general application functionality and performance of the handheld computers. Given the limited availability of handheld computers, only a cursory examination was performed. A second MITRE team was asked in May 2007 to conduct a security vulnerability assessment to determine the likelihood of Title 13 data being compromised.

On November 27, 2007 the Deputy Director requested meetings with MITRE and other stakeholders to discuss the state of FDCA. MITRE met with the Deputy Director on November 29 and left behind a set of talking points indicating major areas of risk around schedule, requirements, testing and acceptance, and cost. The talking points concluded: "FDCA is in serious trouble. It is not clear that the system will meet Census' operational needs and quality goals. The final cost is unpredictable. Immediate, significant changes are required to rescue the program. However, the risks are so large considering the available time that we recommend immediate development of contingency plans to revert to paper operations."

The Deputy Director convened a meeting of his senior managers and MITRE on December 4 and reviewed the major points from the November 29 meeting. All key stakeholders were present with the exception of a representative from the Harris Corporation. A preliminary decision was made to transfer the development of the software for the Coverage Measurement operation from Harris to the Census Bureau's Technologies Management Office. The Deputy Director also stated that he wanted a final set of requirements delivered to Harris by the middle of January. MITRE contributed to development of the final set of requirements, as described in the next section.

# 5 FDCA Support

MITRE submitted to the Census Bureau an FDCA Recovery Roadmap in August ,2007. This followed the Red Team assessment completed in June.

On August 23, 2007 the new FDCA Program Manager, requested MITRE assistance with FDCA requirements and schedule definition. On August 28, 2007, MITRE provided recommendations for updating the FDCA requirements for the 2010 Census. Subsequently, MITRE provided support to update the workflows, narratives, and requirements clarifications for 2010 operations to the Census Bureau for delivery to Harris. This included NRFU, Address Canvassing, and paper-based operations. MITRE facilitated sessions to clarify requirements, analyze issues, determine the approach for resolving issues, and package the final documentation.

In December 2007, MITRE developed a minimum set of requirements and recommended changes for Section C of the FDCA contract as a step to restructure and re-baseline the FDCA contract. Initial results were presented to the Associate Director for Decennial Census on December 17, 2007. MITRE was directed to provide a copy to the Chief of the Decennial Management Division, and the copy was delivered on December 18, 2007.

The pace of activities increased during the months of December and January to meet the mid-January completion date specified by the Deputy Director. MITRE continued to work with both the Decennial Management Division and the FDCA PMO to clarify issues with the requirements that were delivered to Harris on January 16, 2008.

In January 2008, MITRE was asked to provide several software engineering experts to participate in a Census "Blue Team" to review Harris' software architecture and software development processes. The Chief of the Census Technologies Management led the team, and MITRE provided five engineers to assist with the analysis. The team visited Harris software development locations in Largo, Maryland and Melbourne, Florida. The team conducted numerous interviews, observed software development and testing procedures and conducted analysis of the code that was being produced by Harris. The team leader presented results to the Director of the Census Bureau on January 31, 2008. A similar briefing was conducted at the Department of Commerce for the Deputy Secretary and Chief Financial Officer on February 1. The team concluded that given the current schedule, budget, processes, and status, they had low confidence that all of the planned capabilities would be delivered on time, on budget, and to the degree of quality needed.

On February 5, 2008, the Secretary of Commerce and the Director of the Census Bureau commissioned a FDCA Risk Reduction Task Force to examine alternatives to reduce the high risk of continuing with the FDCA baseline. MITRE was asked to provide assistance in evaluating the risks and the costs associated with a range of alternatives that included going to paper-based operations in place of using the handheld computers in the 2010 Decennial Census. MITRE used a decision tree approach to formulate the possible alternatives that

were provided to the Task Force members for analysis and comment. MITRE worked with personnel from the Decennial Management Division budget office to estimate the costs of each alternative. Risks for each alternative were identified and quantified to aid in determining the relative severity of the risks. The Task Force recommended that the Census Bureau adopt Alternative 2 that called for using paper forms for the Non-Response Follow-Up operation in place of the handheld computer. The Task Force stated that this alternative contained less risk than the baseline of continuing with the Harris plan of using handheld computers for Non-Response Follow-Up.

On about March 17, the Assistant Secretary of Commerce requested an independent MITRE assessment regarding the path forward on the FDCA contract. MITRE provided an assessment on March 20 that reflected information provided by Harris and the FDCA Program Management Office subsequent to the completion of the FDCA Risk Reduction Task Force. The assessment concluded that both the baseline and Alternative 2 were feasible, but both required improvements in management, testing, and communications.

MITRE subsequently worked with a large group of stakeholders, including Harris, to conduct a detailed analysis of the risks. The conclusions of this effort determined that Alternative 2 is less risky than the baseline alternative. Based on the detailed risk analysis, it became clear that Alternative 2 using paper for Non-Response Follow Up is less risky because it uses well-understood paper-based operations and appears to have a similar cost. Therefore, MITRE recommends Alternative 2 as the best approach for the Census Bureau.

On March 31, 2008, MITRE presented the Director of the Census Bureau with a set of recommendations for implementing a successful program. The recommendations have also been discussed with the Deputy Director and with the Associate Director for Decennial Census. The recommendations include:

- Establish a command center to oversee management of the selected alternative
- Develop a Roadmap, an integrated schedule at the executive level, of activities for the next 60 days
- Identify and assign action officers to high priority activities
- Develop a communications strategy to increase transparency, collaboration, and teamwork
- Communicate the Roadmap to both internal and external stakeholders

MITRE remains committed to helping the Census Bureau overcome the current challenges to implement a successful FDCA program that will enable a successful 2010 Decennial Census.

# Appendix Acronyms

| | |
|---|---|
| DMD | Decennial Management Division |
| DoC | Department of Commerce |
| DRIS | Decennial Response Integration System |
| DSAT | Decennial Systems Architecture Review Team |
| ECP | Engineering Change Proposal |
| FDCA | Field Data Collection Automation |
| GAO | Government Accountability Office |
| HHC | Handheld Computer |
| IG | Inspector General |
| IGCE | Independent Government Cost Estimate |
| NRFU | Non-Response Follow Up |
| PM | Program Manager |
| PMO | Program Management Office |

**Document List**

01 Quick Look Report April 20, 2004

02 FDCA Acquisition Strategy April 27, 2004

03 Industry Day Plan July 15, 2004

04 Independent Assessment July 28, 2004

05 Checkpoint One September 30, 2004

06 Checkpoint 1pt5 Nov 29, 2004

07 Checkpoint 2 January 12, 2005

08 FDCA Alternatives Analysis February 1, 2005

09 FDCA Program Scope Processes and Automation Considerations February 21, 2005

10 FDCA IGCE Cost Dictionary April 20, 2005

11 FDCA Econ Analysis of Risks June 22, 2005

12 FDCA Red Team Assessment April 13, 2007

13 HHC Address Canvassing Test Results April 17, 2007

14 FDCA Red Team Assessment-May 9

15 Review of HHC May 23, 2007.

16 FDCA Red Team Assessment for Deputy Director June 6, 2007

17 General Comments for ECP 8 Aug 3, 2007

18 FDCA Recovery Roadmap Aug 8, 2007

19 FDCA_2010_Requirements_Definition August 28, 2007

20 FDCA ECP 10 review Oct 8, 2007

21 FDCA Requirements Recommendations - MITRE - Initial Report - 18 Dec 2007 - Watermarked for Frank Vitrano.

22 Talking Points for Deputy Director November 29, 2007

23 Census certification of CIO role Feb 8 2008

24 GAO Questions v2 Feb 14, 2008

25 MITRE Assessment on FDCA Options March 20, 2008

26 Comparison of risk analyses.

26a Comparison of FDCA Task Force and Hilding Working Group 5x5 Risk Analysis

26b FDCA Alternatives 5x5 Risk Analysis v07 - 03-22-08

26c 5x5 Analysis of FDCA Task Force Component Risks v02 - 03-20-08

27 MITRE Recommendations March 31, 2008

Mr. CLAY. Thank you very much.

Ms. Janey, you can finish it out.

**STATEMENT OF CHERYL L. JANEY**

Ms. JANEY. Mr. Chairman, members of this committee and subcommittee, thank you for this opportunity to discuss Harris' role in supporting the Department of Commerce and the Census Bureau in the modernization of the 2010 decennial census. Accompanying me today is Mike Murray, vice president of programs, and the lead executive for Harris on the FDCA program.

Harris' role in the automation process is to provide the Bureau with the technology and infrastructure it needs to make this shift. Harris Corp. designed and refined mobile hand-held computing devices to automate work in the field.

As you know, the Census Bureau recently made the decision to use the hand-held devices for address canvasing, but to revert to pen and paper for the non-response followup. We were not involved in many aspects of that decisionmaking process; however, I can say that there is more to the wholesale cultural transformation that the Bureau is undergoing than technology alone. We believe three primary factors contributed to the decision to revert to paper, based on our conversations with census and Commerce officials.

First, the Bureau lacked sufficient and well-defined specifications for systems and process requirements at the time it originally issued its request for proposal [RFP].

The second factor is a direct outgrowth of the first: as census officials attempted to determine their needs, the project evolved. They were compelled to repeatedly adjust and add new requirements. It was just this past January, 2 years after the RFP was first issued, that we received more than 400 new and altered contract modifications. At this late stage of the process, even minor or cosmetic new requirements require reevaluating the system design in order to assure that each new component is fully integrated. We have been urging the Bureau for over a year to finalize requirements, and have been working with them to that end.

While Harris prides itself on being an expert in information technology and systems integration, we have no authority to adjudicate the competing goals and requirements of internal census divisions or stakeholders. That is inherently Governmental responsibility. We must rely on our customer to tell us what requirements they need; then we design a system accordingly.

During recent congressional hearings it was asked why Harris' contract has doubled in cost while the scope appears to have been cut in half. The answer is straightforward: the costs have increased as the scope of the project has increased. Let me give you a few examples of some of the major cost drivers.

Due to more conservative assumptions by the Bureau, additional staff, hours of operation, and equipment have been added to handle expected increases in call volume, and, as a result, the help desk cost has grown significantly.

Of the more than 400-plus new requirements received in January 2008, only approximately 15 percent can be eliminated as a result of paper-based non-response followup.

There has been more than a 50 percent increase in the equipment requested in local census offices.

An automated followup solution has already been developed, with sum cost of about $25 million and now must be redeveloped to support a paper-based process. And the number of hand-helds allocated for address canvassing has increased from 63,000 to over 140,000.

In summary, we are doing nearly twice the work, not half the work.

Let's remember strides have been made in the census modernization effort. The census data base has been successfully digitized under another Harris contract with the Census Bureau, MAF/TIGER, ahead of schedule and under budget. The Census Bureau now has GPS-anchored geomapping resources that provide satellite precision. An operations network has also been put in place, with unprecedented security measures to protect the private data of American citizens. Hand-held devices are being readied to replace van loads of paper for address canvassing.

With these strides the Census Bureau has formed the foundation for continued automation.

Harris also understands the importance of being good stewards of Government dollars. I can assure you that we always have and always will continue to operate with the highest regard for this responsibility. Every month during the program Harris provides complete transparency to the Bureau of our cost, schedule, and technical performance. Harris is committed to helping the Census Bureau make the 2010 census a success, and it is apparent that all parties, and at the highest levels of leadership, share that commitment.

Mr. Chairman and members of the committee and subcommittee, I appreciate the opportunity to testify and invite your questions.

[The prepared statement of Ms. Janey follows:]

HARRIS

**Testimony**
**of**
**Cheryl L. Janey**
**President**
**Harris Corporation, Civil Business Unit**

**Joint Hearing**
**Oversight and Government Reform Committee**
**Information Policy, Census and National Archives Subcommittee**
**Wednesday, April 9, 2008**
**2154 Rayburn HOB**
**2:00 p.m.**

Chairman Waxman and Congressman Davis, Chairman Clay and Congressman Turner, and members of this distinguished Committee, my name is Cheryl L. Janey and I am the President of the Civil Business Unit for Harris Corporation. Thank you for this opportunity to discuss Harris Corporation's role in supporting the U.S. Department of Commerce and the U.S. Census Bureau in the modernization of the 2010 Decennial Census.

Harris Corporation is an international communications and information technology company serving government and commercial markets in more than 150 countries. We have 16,000 employees, including nearly 7,000 engineers and scientists, with about 10 percent of them working here in the Capitol Region.

Harris is pleased to play a leading role in what is perhaps the single most critical period of transformation for the U.S. Census in its history. For two centuries, the Census had been administered as a largely manual process: Census enumerators went into the field with pen and paper and collected reams of population data. After the 2000 Census, the Bureau began one of the most important and complex transformations in its history: the modernization of the 2010 Decennial Census, to be achieved by transitioning from a culture of paper to one of automation. Two years ago this month, after a competitive bidding process, the U.S. Census Bureau awarded the Field Data Collection Automation (FDCA) contract, a major part of the bureau's overall modernization and automation program, to Harris Corporation.

Harris's role in the automation process is to provide the Bureau with the technology it needs to make this historic shift. Specifically, we have created the technology to automate

the Census processes and equip enumerators with handheld computerized devices. We are providing the systems integration resources and architecture to securely integrate all of these automation components of an electronic address database that, among other things, digitally maps the type, location, and name of streets, rivers, railroads, and other geographic features.

The Census Bureau wanted this and other databases to be available to enumerators in the field. Harris Corporation designed and refined mobile handheld computing devices to automate work in the field. Although a little larger, they are similar in design to the average off-the-shelf cell phone or Blackberry. With a little training, virtually anyone can use one effectively.

Public reports about the device's current readiness are based on an Address Canvassing Dress Rehearsal held about a year ago. The purpose of the rehearsal, in addition to validating the Census Bureau's business processes, was to provide a realistic field test of the first-production handheld devices and software release to identify any necessary adjustments in advance of decennial operations. We have defined those adjustments (primarily software changes) and have already successfully implemented many of them. Put simply, the handhelds will be ready to work in conformity with Census Bureau specifications.

As you know, the Census Bureau recently made the decision to use the handheld devices for Address Canvassing, but to revert to pen and paper for the non-response follow-up. I cannot speak fully to the rationale behind the Census Bureau's decision-making process. We were not involved in many aspects of that process. I can say, however, that there is more to the kind of wholesale cultural transformation that the Bureau is undergoing than technology alone. The kind of operational, organizational, and managerial changes required would present challenges to any organization, especially one with as deep a history as the Census Bureau.

One of the primary challenges since the inception of this contract is the lack of well-defined and finalized system and process requirements. These have changed dramatically over the course of this project, with an additional 400-plus new or refined requirements

issued just a few months ago – two-thirds of the way through the development process. Such late and ongoing changes in the requirements highlight the continual evolution on the part of the Bureau to determine exactly how the device should function in order to automate the historically manual processes of the Census Bureau. Understanding this provides some context for Secretary Gutierrez's conclusion that, not knowing what "unforeseen difficulties" may arise, Census Bureau officials are more comfortable addressing any such challenges through the paper process, with which they are more familiar. Given the large number of new requirements that have been recently issued, the Bureau appears to be making a cautious and considered decision to avoid the potential of encountering unforeseen challenges as they fully interweave automation into an historically manual operational process.

During our ongoing discussions with the Bureau and the Department of Commerce, we were informed that there was concern that the requirements given to us for non-response follow up may not be complete. In other words, we have designed what the Census Bureau asked for, but what they have asked for may not be what they need.

Let me be clear: This is not to cast blame in any direction. None of us envy the job of the Census leadership in having to determine, years in advance, every single step that must be transferred from a formerly manual paper process into one of automation. As reported by the Government Accountability Office (GAO) and the Census Bureau's independent consultants, this task was further complicated by numerous stakeholders being involved in the project who often called for competing requirements. While Harris prides itself on being an expert in information technology and systems integration, we have no authority to adjudicate the competing goals and requirements of internal Census divisions or stakeholders. That is an inherently governmental responsibility. We must rely on the policy experts to tell us what kind of requirements they need, and we can then design a product accordingly. That is what we have done.

Let me outline for the committee three primary factors we believe contributed to the decision revert to paper, based on our discussions with Census and Commerce officials.

**1. Insufficient Requirements at the RFP**

HARRIS

The first reason offered was that the Bureau lacked sufficient and well-defined specifications for systems and process requirements at the time it originally issued its Request for Proposals (RFP). In other words, they could not be entirely sure what they needed when they solicited bids, but because of tight deadlines moved forward anyway. During recent congressional hearings, it was asked why today's contract projections are higher than the original estimates. The answer is straightforward: We were asked to bid on a project lacking some of the baseline specifications, and the costs have increased as the scope of the project has increased since that original RFP was issued. A review of bids by other companies who competed for the FDCA contract will show that they were comparable to ours because we were all attempting to estimate costs for a project that lacked significant details and requirements.

**2. Continual Requirement Changes and Additions**

The second factor is a direct outgrowth of the first. As Census officials attempted to determine their needs, and the project evolved, they were compelled to repeatedly adjust and add new system and process requirements. We have faced *hundreds upon hundreds* of requests for new requirements over the past two years.

Every month Harris provides complete cost transparency with a view into cost, schedule and technical performance. We have been urging the Bureau for over a year to finalize requirements and have been working with them to that end.

As I have already mentioned, it was just this past January, two years after the contract was first issued, that we received more than 400 new and altered contract modifications. We are not talking about minor or cosmetic new requirements. Every change at this late stage of the process, no matter how small it appears on the surface, requires re-evaluating the system design in order to ensure that each new component is fully integrated into the overall system nationwide.

Aside from the complications involving technical changes and additions, we also incorporated a broad array of alterations and scope increases involving process requirements. These, too, contributed to increasing costs.

To use just one example, I'd point to the Help Desk function. During a congressional hearing last week, questions arose as to why the costs for the Help Desk have outgrown the original estimates. It should be understood that our original estimates were derived from initial assumptions based on information provided in the RFP. The RFP assumed that field crew chiefs and on-location technical staff would be able to answer field enumerator calls; that, however, is not the case. Additionally, the number of handheld devices deployed for Address Canvassing more than doubled, and the number of field locations increased by approximately 10 percent – all after the original RFP was issued. Original estimates were that the Help Desk would need to absorb about 160,000 calls. The figure has since been revised dramatically upwards to more than 750,000. A much more robust help desk is now proposed, driven by requirements as they are expressed today. As the GAO has warned in at least four different reports dating back to 2006, this lack of clearly defined and finalized systems and process requirements is at the heart of the schedule delays and cost increases associated with the FDCA project.

**3. Cultural Challenges in Transitioning from Paper to Automation**

The last factor cited by Census and Commerce officials during our conversations was the cultural challenges faced by the Bureau in transitioning from paper to automation. In fact, "cultural overload" may best sum up the overall challenge this project has faced. It summarizes everything from underestimating the amount of resources necessary to carry out this transition to difficulties finalizing systems and process requirements to having the comfort level to move forward without more time to test the environment.

Combined with an organizational culture that has limited experience with automation, it is understandable that the Census Bureau would want to be fully confident that all final requirements had been considered and tested. Since this was not the case, the Bureau appears hesitant to move forward with an automated process for such a highly sensitive job as counting and tallying U.S. residents. To quote Secretary Gutierrez in full: "Our flexibility to respond to unforeseen difficulties is greater under the paper-based option because our ability to deploy people is greater and faster than the ability to manufacture additional handhelds on short notice."

HARRIS

This challenge, however, is not a matter of technology – it is a matter of risk management. That is the same conclusion drawn by the GAO when it decided to categorize the Census project as "high risk" last month. Even going back two years to March of 2006, the GAO was warning that "Until the Bureau finalizes its operational requirements for the census and ensures that the FDCA request for proposal is consistent with the baseline requirements, the project is at risk of having changes to the requirements, potentially affecting its ambitious development and implementation schedule."[1]

Mr. Chairman, if I may, sir, I would like to end my testimony with words of support and encouragement for the Census Bureau. I have tried to the best of my abilities, and without casting any sort of blame, to explain the role of Harris Corporation as a systems integrator, as distinct from the far more difficult and complex responsibilities faced by the Census Bureau in leading the wholesale transition of that agency from a culture of paper to one of automation.

We should remember that historic strides have been taken in the Census modernization effort. Consider for a moment what has been accomplished thus far: The entire Census database has been successfully digitized. The Census Bureau now has GPS-anchored geomapping resources that provide satellite precision. An entire operations network has been put into place with unprecedented security measures to protect the private data of American citizens. Nearly 500 field offices are being successfully integrated into that automated infrastructure. Handheld devices are being readied to replace vanloads of paper for Address Canvassing. Harris is encouraged that automation and the adoption of new technology is moving forward, even if in a slightly more narrowly focused fashion than originally envisioned.

With these strides, the Census Bureau has achieved a set of enduring benchmarks that will form the foundation for continued automation and transformation going forward. This foundation will serve our nation well in the 2010 Decennial Census and beyond. We are

[1] (Sources: Government Accountability Office, "Census Bureau Important Activities for Improving Management of Key 2010 Decennial Acquisitions Remain to Be Done," Page 11, March 2006, and "Significant Problems of Critical Automation Program Contribute to Risks 2010 Facing Census," March 5, 2008)

proud to be working alongside the fine men and women of the Census Bureau in that historic transition.

We also understand the importance of being good stewards of government dollars. We understand that they are the people's dollars, taxpayer dollars. I can assure you that we always have and always will continue to operate with the highest regard for this responsibility. The costs for this project have, in fact, increased. However, they have done so in proportion to the increased scope and requirements given to us over the past two years as this program has changed and expanded from its original scope.

Harris is committed to continuing its role as a valued partner helping the Census Bureau make the 2010 Census a success. With the new director, Dr. Murdock, in place at the Bureau, and Secretary Gutierrez at the Department of Commerce, along with the oversight and support of Congress, it is apparent that there is an ongoing commitment from all parties at the highest levels of leadership to making that goal a reality.

Mr. Chairman and Members of the Committee, I appreciate the opportunity to testify before you today. I look forward to answering any questions you may have.

Chairman WAXMAN [presiding]. Thank you all for your testimony.

Mr. Powner, GAO repeatedly warned the Census Bureau that it needed to plan better for this program. In their 2004 report, you concluded that the Census Bureau needed to improve the rigor of its planning process by developing an operational plan that consolidates budget, methodological, and other relevant information about the census into a single comprehensive project plan that would be updated as needed; is that correct?

Mr. POWNER. That's correct, sir.

Chairman WAXMAN. But the Census Bureau failed to do this. They went forward with the contract that had inadequate specifications, relied far too heavily on a private sector contractor, and provide wholly inadequate contract oversight. As a result, the American taxpayers now face billions of dollars of increased cost.

Regrettably, this has been the rule rather than the exception under the Bush administration. The same thing happened with reconstruction efforts in Iraq, where we squandered billions of dollars.

The response to Hurricane Katrina suffered from a similar lack of advance planning. In 2006, GAO found that neither FEMA nor the Army Corps of Engineers had adequate contingency contracts in place. According to GAO, the failure to explicitly consider the need for and management of the contractor community played a major role in the mismanagement of the relief effort.

In 2005 the Inspector General of the Department of Homeland Security reported that homeland security procurements suffered from the same problem, again costing taxpayers millions of dollars. The IG warned that by approving programs without adequately defined technical requirements, DHS risked likely adverse costs in schedule consequences.

Well, it just seems to me that what we are seeing is the same thing happening over and over again.

Mr. Waite, how do you justify the actions of the Commerce Department and the Census Bureau? You were repeatedly told you needed to make fundamental reforms, but you never did.

Mr. WAITE. I think that we were making fundamental reforms, but they were coming much too slow, Mr. Chairman. We had more to do probably than we had the time to do. We were still testing some of our procedures to try and see what our requirements should be. In retrospect, we were very slow in catching up to this problem. I only really fully grasped the significance of the problem in about November 2007. We were trying to do what GAO had said, but we found that to be a very difficult task in the time limit that we had, and I would say we were too slow in getting that done.

Chairman WAXMAN. Well, Mr. Powner, GAO raised many of the red flags that were ignored. The problem got so bad that last month you put the 2010 census on the high-risk list. Do you think the Department of Commerce and the Census Bureau have acted as responsible stewards of the taxpayers' dollars?

Mr. POWNER. Mr. Chairman, I think it is unacceptable what happened here. I mean, as you clearly pointed out, in 2004, at the request of this committee, we started looking at institutional processes at the Census Bureau to manage $3 billion worth of IT con-

tracts. At that time we said they did not have those processes and management capabilities in place.

In March 2006 we testified in front of Chairman Turner at the time. If you go back to that transcript, we made comments along the lines of relying on the contractor for technical solutions is fine, but relying on contractors for requirements is not. Those were the exact words.

Time ticked along. We followed up on our recommendations. I point to the MITRE study, because MITRE then in June 2007 pointed out the same things. They said requirements were unstable and they needed to stabilize the requirements immediately. Those requirements did not get stabilized until the December/January timeframe. That is not immediately. So it is unacceptable the lack of action and also the lack of transparency.

Chairman Clay held a hearing on December 11th. A lot of these MITRE findings were known at the time and they were not disclosed at that hearing.

Chairman WAXMAN. Thank you.

Thank you, Mr. Chairman.

Mr. CLAY [presiding]. Thank you, Mr. Chairman.

Mr. Davis.

Mr. DAVIS OF VIRGINIA. I understand now the Bureau has asked for some reprogramming of money from this fiscal year. What happens if they don't get that? What is the solution? Let's assume you don't get that at this point. How are we ready for the 2010 census at that point?

Mr. MURDOCK. We are going to certainly face some significant challenges if our funding does not continue or we do not get the funding that we need.

We are working, as you know, with the Department and, with their effort, to work with Congress——

Mr. DAVIS OF VIRGINIA. I am just asking what happens if you don't get it. I know you are trying to get it, but if you don't get it what happens?

Mr. MURDOCK. Well, we are looking at the contingencies right now, developing plans that will indicate what our options are.

Mr. DAVIS OF VIRGINIA. They are not very good, are they?

Mr. MURDOCK. They are not. Right.

Mr. DAVIS OF VIRGINIA. What would it include? If you didn't get this, it puts you further and further behind in doing the correct count. Could it lead to an under-count in major cities?

Mr. MURDOCK. Well, there is a variety of things that could happen, but certainly time here is our biggest enemy. We need to be about moving forward with our new plan.

Mr. DAVIS OF VIRGINIA. It seems to me that we can sit here all day and bash people who messed this up, and it was a big screw-up, and we will get into a little bit of analysis. It is not just Commerce Department. This is throughout Government, whether it be contracting officials who aren't trained, they get in over their heads sometimes. They don't give appropriate supervision. We don't give them good training. This is what you get.

If it were just the Commerce Department it would be one thing, but this is, I think, endemic across Government. That has been my experience.

But, having said that, we want the census to go on. I know Mr. Clay wants a good count in St. Louis. I want a good count in Fairfax and in Virginia. I am just worried about how we work together as Republicans and Democrats with the Department to make sure that everything is in line for a good count in 3 years. If we don't have that, you can't sample without legislative changes, and that is going to take 60 votes in the Senate. It is unlikely it will occur. So I am trying to think. You know, just walk me through some of the contingencies that you are looking at.

Mr. MURDOCK. Well, we are just in the beginning phases of planning those and working those out with the Department, and when we have worked those out and we have the alternatives to look at, I will be glad to bring those back and talk to you about them.

Mr. DAVIS OF VIRGINIA. OK. But if you don't get this money, it becomes more problematic, doesn't it?

Mr. MURDOCK. It becomes more problematic. And the longer it takes for us to get things up and running, the longer the delays are, the more difficult it is for us, because time is our biggest enemy.

Mr. DAVIS OF VIRGINIA. OK. Let me just ask our GAO rep, and then anybody else can respond: if this is about the lack of defining requirements early on and making sure they were concise and universally accepted, why didn't the Bureau recognize this and take action prior to the contract award? Were they over their heads?

Mr. POWNER. Ranking Member Davis, we had that discussion. We testified in front of Chairman Turner's committee at the time in March 2006—I believe that was a month prior to contract award—and our take on this is you wanted to find as much as early as possible, and I had discussions with Mr. Waite and others about the need to do this, if not prior to contract award, soon thereafter. Again, I think soon thereafter, after April 2006, is not December 2007 or January 2008.

Mr. DAVIS OF VIRGINIA. Anybody else want to respond to that? I mean, did we have the right people on this, or was this a question of just not having the capability in-house to get this done?

Mr. WAITE. I think that we had the right people on this. I think that we clearly were asking for ourselves and asking the Census Bureau to do a fundamental cultural change, and I think that cultural change was probably too great. We issued a contract for a solution, and we really were not—our field staff, which uses this mostly, really were not fully prepared to go for a contract for a solution. Much of these changes and requirements come. I'd like you to do a contract for solution. You bring me the solution. I said, no, I don't want it that way. I want it changed. That costs money and time.

Mr. DAVIS OF VIRGINIA. So basically the regional offices, there was a resistance to some of the changes, that kind of thing?

Mr. WAITE. I don't think there was a resistance. When they saw the contract for solution product, there were things they believed that they needed that clearly were not communicated well enough to the Harris Corp. that we couldn't deal with the particular products that came from the solution.

Mr. DAVIS OF VIRGINIA. Had they been brought in earlier, you might have had a different result?

Mr. WAITE. Yes, that's true.

Mr. POWNER. Mr. Chairman, if I could add to that.

Mr. DAVIS OF VIRGINIA. Yes, please.

Mr. POWNER. Whether it is a solutions contract or not, defining your requirements up front, telling the contractor what you need is project management 101. So, in terms of not doing that, from a project management point of view and from an Executive level governance point of view, clearly those folks are at fault and were not doing the right things.

This isn't something new. This is something we do on every IT acquisition across the Government. We define what we want in as much detail as possible so that we don't have this.

Mr. DAVIS OF VIRGINIA. Right. We see this time and time again. I just add the one contract that I know that Congress has been involved with is the Capitol Visitors Center. That is not an IT contract, but that was one where we kept changing the requirements, and now it has escalated three times what it was going to be. It is way behind schedule. I mean, this is what happens.

At the end of the day, this is up to managers to try to work through this, and this was a failure of that. The contractor is sitting out there. If you give them the appropriate guidance and you put the appropriate reigns, this stuff generally works out. Sometimes, occasionally you find a contractor that is not competent to do the business, but that wasn't the case here, was it, Mr. Powner?

Mr. POWNER. No, that's clearly not the case. But also, too, this is clearly a Government issue. The Census Bureau is at fault. But also, to balance this a little bit, I think, with all the red lights that were going on and the sirens along the way, including all the hearings that the various subcommittees associated with this full committee held, you know, the Harris Corp. does have a responsibility to converse with the Census Bureau in terms of helping to stabilize and define those requirements more completely.

Now, to the extent that went on, we are not privy to all of those discussions, but I don't think they are entirely off the hook here.

Mr. DAVIS OF VIRGINIA. They get paid, though, anyway. It is like it is churning if they don't ask questions. But I hear you.

Mr. POWNER. Thank you.

Mr. DAVIS OF VIRGINIA. Thank you, Mr. Chairman.

Mr. CLAY. The gentleman from Virginia's time has expired.

Let me start with Mr. Waite and Mr. Murdock. At what point did the Bureau realize that the requirements for the hand-helds were not sufficient? At what time?

Mr. WAITE. We began to understand the requirements needed to be further defined for the 2010 census, itself, in around August and September 2007. I had specific meetings with Harris, with MITRE, and with parts of the Census Bureau staff in November 2007 where it was clear for me at that time that we were not going to be able to get all of the requirements done, and that a big reason that they were not done was that there were still some outstanding requirements that needed to get fixed. That's what we implemented almost immediately. We should have done it sooner, for sure, but by the middle of January we had the requirements finalized, and then we really could see the full depth of how much was missing.

Mr. CLAY. OK. But in April 2006 the contract was awarded as a cost-plus contract, $600 million. Since 2004, GAO and the Inspector General issued no less than nine reports with their concerns, and the concerns fell into four general categories: the Census Bureau needed to define specific, measurable performance requirements for the hand-held mobile computing device; the Bureau needed to develop and integrate a plan to control the cost and management operation; the Bureau needed to maintain diligent oversight of its contractors; and the Census Bureau needed to strengthen their systems testing and risk management activities.

Now, when did you take their recommendations and actually follow through on them?

Mr. WAITE. Well, let me look at these individually.

First of all, the performance requirements, we were still, at the time we let the contract, we were still testing hand-held devices of our own making out in dress rehearsal and trying to define some details of the contracts.

We got all of the requirements taken care of for the address canvassing part in the late summer of 2007. We finished all of the requirements for the 2010 portion of the census in January 2008. Developing the integrated, comprehensive plan, people were working on that. It was a very difficult task, and I don't honestly think we fully ever got that done.

Maintaining the maintenance and looking at what was going on, we had 50 people at a program management office of 50 individuals whose job it was to monitor the progress of the Harris contract and to report monthly on the progress, what was happening.

What I was getting, sir, is very, very positive reports that everything was in control until about October 2007.

Mr. MURDOCK. And I think, Mr. Chairman, that we recognize that we have not done everything right in the past, and clearly we need to go forward with new plans, with a new management approach of outline one that we can discuss in detail if you wish.

Mr. CLAY. Very good. I look forward to that outline and that approach, and hopefully in the near future.

Ms. Janey, let's start with the cost of FDCA. It has been the talk of Capitol Hill and the country. As you know, I expressed my concern about the fact that the contract price has doubled, from $600 million to $1.3 billion. It is unacceptable at any time, but it is worse at a time when the economy is in the tank and many Americans are struggling to pay for gas, food, and shelter.

So help us understand what happened. Why is the cost double, and what do the American taxpayers get for the extra $700 million? As you know, $700 million is not pennies.

In the original contract, could Harris have performed all of the requested functions on the hand-helds? And at what cost?

Ms. JANEY. As I said in my oral testimony, Mr. Chairman, there were many contributing factors that have resulted in the cost going higher, driven primarily by changes in assumptions on the part of the Census Bureau. The numbers of hand-helds for address canvassing have increased from 63,000 to 140,000. The assumptions that were made on help desk have increased from about 150,000 or 160,000 anticipated help desk calls to over 760,000 anticipated help desk calls.

Mr. CLAY. Let me stop you there. Let's talk about the number of hand-helds have gone from 63,000 to 141,000. Weren't the original numbers for hand-helds 500,000?

Ms. JANEY. Yes. Let me be clear. The number of hand-helds allocated to address canvassing have increased by 63,000 to 140,000.

Mr. CLAY. Wait a minute. Hold it. I am just a layman, really. I am not an attorney or anything else. What were the original 500,000 hand-helds supposed to perform?

Ms. JANEY. Some were allocated to address canvassing, others were allocated to non-response followup.

The basic point, Mr. Chairman, is that the number of enumerators increased, and increased fairly substantially based on assumptions provided by the Bureau.

Mr. CLAY. I am not going to let you just keep going on. I need some answers. Try to answer this one for me. Given the problem with FDCA, what assurances can you give this committee that the technology needed to compile and integrate and maintain the data bases as complex as MAF/TIGER will work on the hand-helds? Has MAF/TIGER been tested with the final version of the hand-helds?

Ms. JANEY. Mr. Chairman, as I mentioned in my testimony, with me today is Mike Murray, who is the Vice President of Programs and Lead Executive on FDCA specifically, and I would invite him to answer this question.

Mr. CLAY. You can't answer the MAF/TIGER?

Ms. JANEY. I can answer MAF/TIGER.

Mr. CLAY. Go ahead.

Ms. JANEY. Yes, MAF/TIGER does——

Mr. CLAY. We will hear from Mr. Murray later. You can answer MAF/TIGER now.

Ms. JANEY. The question on MAF/TIGER is does MAF/TIGER work on the hand-helds?

Mr. CLAY. Has it been tested?

Ms. JANEY. Yes, it has.

Mr. CLAY. The final version of the hand-held?

Ms. JANEY. It has been tested. Yes, sir.

Mr. CLAY. And it works?

Ms. JANEY. Yes, sir.

Mr. CLAY. It works, so there won't be any cost overruns there?

Ms. JANEY. The hand-held works. The cost——

Mr. CLAY. Will there be cost overruns?

Ms. JANEY. Excuse me, sir. The costs were driven by the requirements. Assuming the requirements do not change, no.

Mr. CLAY. Thank you.

Mr. Turner is recognized for 5 minutes.

Mr. TURNER. Thank you, Mr. Chairman.

The chairman and I were discussing this issue on the House floor, and both of our incredible frustration that we should be in this position now. When the chairman was talking about the issue of oversight and how Congress looks at this matter, I had staff take a look and pull what our committee had done on this. I chaired this subcommittee from January 2005 to December 2006 and found that we had four congressional hearings, three congressional briefings on this matter, receiving the GAO report that is referenced in the current GAO report dated January 12, 2006, and the one dated

March 1, 2006. We held our last hearing on the census September 6, 2006.

I looked specifically at a hearing that was dated March 1, 2006, and it states as its summary that the Bureau continues its preparation for a short form on these censuses, undertaking two major contracts, the field data collection automation program and the Decennial response integration system. These two technology contracts have a combined value of over $1 billion. This is our hearing in March 1, 2006.

I have my opening statement from that, based upon the GAO report, and my opening statement says, "It is our understanding that the hand-helds failed to perform adequately and activity was concluded without finishing the address file that is needed in the next phase. These issues must be resolved before the 2008 dress rehearsal. I am eager to hear what the Bureau is doing to address the problems of their tests and other issues related to 2010."

I went to go see then who was in attendance at that hearing, and I am pleased to report that both Representative Clay and Representative Maloney were both at the hearing as we began the process of saying to the Census Bureau that GAO has told us and we all know, as of March 1, 2006, that unless the Bureau undertakes the reforms necessary that were listed by GAO, that we would be in the situation that we are in now.

We continued to receive assurances, and Chairman Clay reports that, as he has chaired this subcommittee, that the Census Bureau has continued to provide assurances that the tasks were going to be met, and yet we are here again now.

Mr. Powner, you testified in that hearing in March, telling us the measures that were necessary that the Census Bureau needed to take in order to be successful.

So I want to ask the panel the question that I asked Secretary Guitierrez, because it seems to me, from the hearings that we held and the briefings that we held when I was chairman and that we are facing today, that this is a mismanagement issue, that this is something that was accomplishable. That is what I want to ask each and every one of you, because today I believe we are being told that it is not accomplishable within the time that is left. But when we raised the issue and when the issue was first addressed by GAO and there was even a road map, if you will, of what the Census Bureau needed to do, it appeared that it was accomplishable then. So could you tell me? We will start at the left end of the table. Was this task accomplishable?

Mr. MURDOCK. Well, what I would say in answer to the key question you started out with is that my view, coming in when I did, is that we clearly didn't do everything we should. I think there were things that both ourselves and the contractor could have done better. I think we didn't scope our requirements as fully as we should have at the beginning of the process. We didn't communicate well to our contractor in terms of what——

Mr. TURNER. Can you hold on a second? I don't have that much time. We only each get 5 minutes.

Mr. MURDOCK. OK.

Mr. TURNER. I have already heard the why we can't do it now or what impacted the inability to do it. I am starting from when

this was tasked. When there was first a decision that this was going to be undertaken, was it accomplishable? Technologically, process-wise, was this accomplishable? Mr. Murdock, we will start with you.

Mr. MURDOCK. I believe that at the time that it was accomplishable given the requirements that were on the table. It wouldn't have been accomplishable even then, sir, if all the requirements that are now in place had been there. It wouldn't have been accomplishable.

Mr. TURNER. Which were your requirements?

Mr. MURDOCK. Right. If we had the full requirements, it would not have been accomplishable then in the given budget.

Mr. TURNER. When we had our hearing on March 1, 2006, when GAO had reported that there was a problem with the project and my statement in opening said that the hand-helds had failed and that GAO had indicated what needed to be done in order to accomplish this in time, was it accomplishable then?

Mr. MURDOCK. I think it was. I think that when GAO reported about the problems with the test of the hand-helds, they were not Harris hand-helds. They were hand-helds that we had purchased off the shelves, and we were testing them. We had every reason to believe, based on the contract negotiations or the contract bids where all of the companies actually put forth a skeletal version of address canvassing, that the Harris hand-held would be far superior to the ones that we were using.

Mr. TURNER. OK. I am going to go down the line and I am going to ask each person to answer this also, but I wanted to leave you with one comment before I go on to let them answer this question, and that is: there are several problems here that we are facing, one of which, of course, is the just unbelievable waste of taxpayers' money, the complete mismanagement of this project.

But the most important issue, the one that we addressed in the four hearings and three congressional briefings that we had and in this subcommittee when I chaired it is that people have to have faith in the census. When the credibility of the census is brought into question, it brings into question the processes that are used and whether or not the data and outcomes are what we all need to be able to rely on.

We are going to need to ensure that the plan that you have next is one that everyone can look at and have those assurances, or we are all going to question the process as it is going forward and the end product.

Mr. Chairman, if you wouldn't mind allowing me to continue down the line to have them answer the question of was it accomplishable.

Mr. SCIRÉ. If I could add to that, I think that what you are observing here is not a failure in technology, it is a failure in management. It is also a failure in transparency.

You were asking earlier about when the Bureau could have known. Well, last June the Bureau received reporting on the need for the requirements.

In terms of transparency and going forward, I think it is important, for oversight purposes, for there to be a quicker turn-around in the results of the various tests and operations and benchmarks

that the Bureau needs to establish for the redesign, for the redesign in terms of both address canvassing and in terms of the nonresponse followup.

I will just point out that the address canvassing dress rehearsal happened a year ago, and we are now today talking about changing how that operation will be conducted. I don't think you want to be facing that a year from now, making decisions about how non-response followup is going to be conducted. So I think it would be fair to ask for more rapid turn-around in results of these tests and dress rehearsal operations, rather than the lengthy time that it has been taking.

Mr. TURNER. Thank you. Mr. Powner?

Mr. POWNER. I agree with Mr. Sciré. This is accomplishable. The technology here is not hard. Clearly it was mismanagement. I would contend even if you had defined those 400 requirements back in the mid-2006 timeframe it was still accomplishable. This is not that difficult.

Mr. CLAY. Mr. Providakes, any comment?

Mr. PROVIDAKES. Yes. I have to agree with much of that statement. I have been involved in many complex IT programs across the Department of Defense and Federal Government, and this is not one of them.

Referring to an earlier statement regarding the requirements, I agree with Dave Powner that having as much requirements up front is good to have, but in today's world, where I was mentioning earlier, in the census where there's this large cultural change you have to expect the requirements to evolve.

What really was not put in place was the process that would allow the requirements at some stage to evolve in the development and system development of FDCA to converge to provide the operational capabilities to the user, because even the end user was still sorting this out.

So to my mind it was more of a process issue between having a set of initial hard requirements, putting in place a process that engaged both the contractor, the acquisition manager, and the user that would allow the evolution and convergence of that. That didn't occur at this time.

Third, the topic of technology, this is not hard to do. I will look closely and suggest that the Bureau do a scrub of an estimate of the cost to go forward.

Mr. CLAY. Thank you.

Ms. Janey, anything?

Ms. JANEY. No, sir. I agree. I think this was a doable task. Getting the volume of requirements changes as late in the process as we got it, two-thirds of the way through the plan development time, did have an impact. But I would point to address canvassing. It worked. There were challenges that certainly came out of the dress rehearsal, but that dress rehearsal was done a year ago. Many of the technological issues that were encountered were addressed. It is not a technology issue. I think it was doable.

Mr. CLAY. Thank you.

Mrs. Maloney, you are recognized for 5 minutes.

Mrs. MALONEY. Thank you. I thank everyone for their testimony.

I would like to ask Dr. Murdock and then Deputy Director Waite and Mr. Sciré, Mr. Powner, right on down the line to Ms. Janey, as I said in my opening statement, I would like you to tell us what goals or benchmarks we should have that are objective and accountable and measurable so that by the end of this administration we can get some confidence that if you met them, and once this body responded to your financial requested appropriately and you got all the money that you need to accomplishment, that it would actually work.

As Mr. Powner said, and Mr. Providakes, this is not that hard. We should be able to accomplish this, but we haven't been able to accomplish it.

So I would like to just go down the line and just find out what you should put out there to build confidence in us that you are going to fix the problem, that you are fixing the problem. I would like to also ask do you think we should have a monthly hearing or monthly reports on the progress or the problems that you are confronting, so that at the end of the administration we can actually get this done.

As some of you have testified, this should not be that difficult. What do we need to get this done? And I believe that Congress in a bipartisan way will provide you with the funding that you need, but what benchmarks and really measurable items should be put out before this committee to let us know and build confidence that this is going to be accomplished?

We will start with Mr. Murdock and go right down the line.

Mr. MURDOCK. Let me begin by saying what we are doing in terms of preparing ourselves for this, and another way of saying that is that we do recognize we can't continue to do things in the way that we have in the past; that we have had to make changes, and we have made. I will give you some of our plans relative to future changes.

We have strengthened our management. We have a decennial census director that comes from two backgrounds that are very important for us. He has an IT background and he has Decennial experience.

We have established or strengthening our management program to include many of the elements that GAO has talked about, have risk management process, issue identification, doing extensive product testing, and increasing our communications, particularly the communications between ourselves and our contractor, and instituting tighter budget and cost management.

We are beginning a process of embedding. By that what I mean is having our people working at locations with the contractor so that we can improve communication so we don't have this kind of gap that we had before in terms of getting rapid communication of needs and want.

We have substantially increased the management intensity, meaning the involvement, in particular, of the Deputy Director and myself in the day-to-day operations of decennial census activities, particularly this FDCA.

Let me give you some of the initial deadlines that we have. One of those is that we want to obtain an integrated project schedule,

which is one of the things that has been called for by a number of groups. We plan to have that in about 45 days.

We plan, prior to that, to having plan for the NRFU process. What I mean, a plan that tells us what we need to do in terms to do this under the new replan objective, which is to do it on paper. We will have that in 30 days. So 30 days for that, and integrated program schedule in 45 days.

We plan to be doing address canvas testing of software within 60 days, and with ongoing then processes in terms of the embedding that we have talked about.

We will flesh out in our plan, in our full plan, additional deadlines in terms of when we will do what and we will make sure that in that there are milestones that you and everyone else can hold us accountable for.

Mr. WAITE. I would just like to second a little bit some of the stuff that Dr. Murdock talked about. There are two very serious activities that need to be completed and we need to have those milestones, and I think we need to meet with you as often as you feel that we need to to make sure they get done. One is we have now gone over to a paper NRFU. There is no plan in the schedule for a paper NRFU, and so it is very critical that we get the paper NRFU details together, as Dr. Murdock said, and that in this integrated plan that we find places in our schedule to make sure, before the end of this summer, that we can, in fact, get the non-response followup done when we need to do it in 2010.

Also, on the address canvassing, the main activities that Harris will be working on this summer, assuming that we have the resources, will be going back and making sure that any issues that were still unresolved from the dress rehearsal for address canvassing, or any issues that came up in the way of new requirements, they can get that programming done and we should be testing that within 60 days. If that doesn't happen, for whatever reason, the address canvassing to take place next spring is in some serious jeopardy.

Mrs. MALONEY. Thank you.

Mr. Sciré.

Mr. SCIRÉ. Thank you.

I agree with all of those. I think that for the address canvassing that there is a need for dates for the operational plan for large assignment areas. There would be a need for a deliverable or description of what their plans are for doing a restart/redo in the event that the information that is transmitted from the address canvassing operation is inaccurate.

There is a need immediately, I think, to make public the address canvassing assessment, which is, I believe, still in draft.

There is, as mentioned, an integrated project schedule or integrated plan is something that we have recommended for a long time. The Bureau has taken some initial steps in that direction, but there is still more that needs to be done there in terms of laying out the cost of individual operations, the risk of those operations, and the milestones in a way that you can see what progress the Bureau is making and what new assumptions, new information from the various tests, would cause shifts or changes in that integrated schedule and plan and cost.

I think there is a need for a plan for a NRFU, which Dr. Murdock described. The testing of the software for address canvassing, which was mentioned. A clear description of what it is the Bureau is expecting from Harris in terms of a dashboard which is anticipated in the contract which would provide possibly real-time information during address canvassing of how that is proceeding.

I think by laying that out, that is going to help also with this communication as to what is needed in terms of performance during the address canvassing operation.

I will leave it there. I am sure that Mr. Powner will talk about things in the technology arena.

Mr. POWNER. I would just like to reinforce the integrated schedule, as I mentioned in my brief oral statement. It is very important that we understand when the technologies are going to be deployed, when they are going to be tested, when the operations are going to be in place. There is a lot that is going to need to be tested in terms of the interfaces between the various systems, along with the operations. We have called for clear end-to-end testing where we actually test significant functionality. All of that is up in the air right now.

I think what is key for the Congress is that you have that integrated schedule, you understand the critical path, and that they are held to that.

One other item. Forty-five days, I assume there was already an integrated schedule or aspects of an integrated schedule, and the sooner we can get that in place, if it was a bit quicker than 45 days, all the better.

Mr. PROVIDAKES. I go pretty much all the rest. Clearly, the test and acceptance schedule. I think my biggest concern right now would be cost. I am having a hard time understanding the cost of the increase that has been submitted, and I think it is very important that the Bureau get with the contractor to understand those costs.

MITRE has done a preliminary review of those estimated costs, and I cannot work it.

Mr. CLAY. Please let me inject right here that we would like from you, Mr. Providakes, as well as GAO, a scrubbing of Harris' contract. We would like your analysis of just what the American taxpayer is paying for. Are we actually stuck with the Harris Corp. at this point? And would you report back to this committee as soon as possible on whether we are actually stuck with this contract, this unreasonable condition, and give us your unbiased opinion?

Mr. Issa is recognized for 5 minutes.

Mr. ISSA. I thank you, Mr. Chairman.

Ms. Janey, do you know a gentleman named Vance Roland?

Ms. JANEY. Yes, sir.

Mr. ISSA. And are you aware of a letter that he sent out on February 13th confirming the stopping of work on a number of these projects, including the 140,000 hand-helds?

Ms. JANEY. I am.

Mr. ISSA. OK. And did that cause a cost to Harris in that personnel were put on something else, laid off, or contracts were canceled or postponed for some period of time?

Ms. JANEY. Going back in time, Mr. Roland's letter of February 13th was actually a request for clarification of a letter that we received from the Census Bureau February 11th that limited and directed us to focus on only four specific aspects.

Mr. ISSA. I have read both letters. I guess the question is: was there action taken after this letter that caused some overruns, costs, changes, delays? What action was taken by Harris?

Ms. JANEY. We did focus our staff and our subcontractors to the letter that we received from the Census Bureau. That did result in some people being reassigned or focused on other things.

Mr. ISSA. And I believe they are already in the record, but if they are not I will submit them for the record, both the letter to Mr. Roland and his response.

Mr. CLAY. Without objection, and thank you.

Mr. ISSA. Thank you.

Mr. CLAY. Mr. Murdock, you were on board for a very short period of time when the letter to Mr. Roland by Mr. Ross Jeffries went out, the contracting officer. Have you read that letter?

Mr. MURDOCK. Yes.

Mr. ISSA. And I read the letter, and to me it says stop or limit your activities. Would you agree that is what it appears to say?

Mr. MURDOCK. No, I would not.

Mr. ISSA. OK. Then have you read the letter back to Mr. Roland from Harris Corp.? Would you agree that they believed that it indicated that and were responding in their letter?

Mr. MURDOCK. In our letter, which we had sent——

Mr. ISSA. No, no. We have already moved past your letter.

Mr. MURDOCK. OK.

Mr. ISSA. Because I interpret it different than you interpret it, and I am willing to have that. I want to know about the Harris letter that very clearly says we are in receipt and blank, blank, blank. Is that pretty clearly saying that they believed that the letter said that they were to cease activities, cease or limit?

Mr. MURDOCK. They indicated to us that they saw it as such a letter.

Mr. ISSA. OK. And the question is: why wasn't there an immediate reaction out of your offices if that was erroneous?

Mr. MURDOCK. There were discussions that were done with——

Mr. ISSA. No, no. Why wasn't there immediate action? In other words, why would even 1 day go by when a vendor says we received your letter 2 days ago and we think you are telling us to stop?

Mr. MURDOCK. There were telephone calls made to, in fact, Mr. Roland.

Mr. ISSA. OK. Would you provide the committee with records and personnel that made those calls and the substance of those calls? I don't have them?

Mr. MURDOCK. I will.

Mr. ISSA. I appreciate that.

Now, Mr. Murdock, you are a political appointee of the President.

Mr. MURDOCK. Yes.

Mr. ISSA. How many appointees of the President are there in the Census Bureau?

Mr. MURDOCK. I don't know the exact number.

Mr. ISSA. Three?

Mr. MURDOCK. Three.

Mr. ISSA. OK. So substantially, of the many thousands of employees, it is a career position except for you and two others?

Mr. MURDOCK. Basically, yes.

Mr. ISSA. OK. Mr. Waite, this is the 23rd census. I don't want to be too sarcastic, but this didn't come as a surprise to you that 2010 was going to be another one, did it?

Mr. WAITE. No, sir.

Mr. ISSA. And you were on board for the last one?

Mr. WAITE. Yes, sir, I was.

Mr. ISSA. And the last one cost us, the last 10-year period, which we are still in, cost us how much, versus the $15 billion for this 10-year period?

Mr. WAITE. The last census cost about $6.7 billion.

Mr. ISSA. OK. So $6 billion for 240 million people, $15 billion for 300 million people. Throw in inflation. This one is presently going to cost us more per person. I get it as about $50 a person to conduct, more than the previous one, even adjusted for inflation; is that correct?

Mr. WAITE. I don't have those figures. Fifty dollars more per person?

Mr. ISSA. No, $50 per person. I just did the numbers of $15 billion into 300 million.

Mr. WAITE. That sounds about right, yes.

Mr. ISSA. The only thing I am really good at is money. I seldom miss a decimal point when it comes to the dollars.

Mr. WAITE. That's good.

Mr. ISSA. Billions and trillions sometimes get me, but I do my best.

So for the American people, a Constitutional responsibility, 23rd time it is being done, clearly in the Constitution you have to do a physical count of Americans, including a followup, to diligently try to get every American counted.

Mr. WAITE. Yes, sir.

Mr. ISSA. Why is it, separate from Harris on again, off again, first 400 things to do, then 600, then 1,000, just this year. Separate from all of those things, which I understand, can you tell this committee why we are going to pay more, adjusted for inflation, to do it than we would have done if we simply counted the way we did the last time? I mean, this is a career. You folks are there year in, year out. You have 10 years to plan each of these. Government Accountability I am sure would be glad to answer the question after you take your best shot at it, but tell us why we shouldn't be outraged that it is costing us more this time than last time, adjusted for inflation.

Mr. WAITE. Well, the taxpayer is getting more product. A big chunk of that increased cost is that, instead of getting a long form once every 10 years with that information, the American Community Survey is providing you that information annually, so it is a lot more current and it is a lot more useful since it is current. By the time you get to 2009, the 2000 long-form data is not as useful as it could be.

You are also getting a GPS-aligned TIGER system, which will virtually eliminate what we call geocoding errors, counting you once but counting you in the wrong place. That's because enumerators don't always know exactly where they are. If they get the help from technology, they can put that in the correct place.

The real driver for cost, in my opinion—that's my opinion—we have set out for ourselves as a people a goal of virtually 100 percent counting. The last three or 4 percent are very, very expensive. Nobody at Census Bureau or at the Congress or anywhere else has been prepared to say well, we don't need to have 100 percent. We can live with 96 percent.

My opinion is unless something is done about that, and you are always continually striving for every last person, these costs that you see at census will continue to go up. I don't see anything that is going to stop that.

Mr. ISSA. Mr. Chairman, I hope the Government Accountability Office could answer their view of it, but I do want to say that, at least as one person on the committee, every American needs to be counted in the census, and if it costs us more to do it, at least I, for one, think it is well invested and not a choice. I would like to hear sort of the other part of why this went up so high, if you could indulge us.

Mr. SCIRÉ. If I may, in addition to what Mr. Waite described, the response rate or the difficulty in getting people to respond to surveys generally has increased over time, and that explains part of the increase in cost of the decades. Also, the nature of households is different, where it might be more difficult to count some households today than 10 years ago. There are far more households than there were 10 years ago. But nonetheless, as you pointed out, in a constant dollar basis and on a per person basis, the cost is definitely going up over the decades.

I would add to that there is a lot of uncertainty right now as to what this will cost. The estimates that you are receiving right now I would not necessarily characterize as being accurate or credible. We are doing work right now which is looking closely at those issues. But, just to give you one measure here, and that has to do with assumptions regarding address canvassing operation, in the life cycle cost model it is estimated that address canvassers would be able to do 25.6 housing units per hour. They actually discovered in the dress rehearsal that they are doing more like 13.

I am not certain that is reflected in the estimates that you are receiving right now, so if that were to be put into the cost model I would expect the cost to be even greater.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. CLAY. Thank you, Mr. Issa.

Mr. Issa, would you provide us with the copies of all of the material you have inserted into the record?

Mr. ISSA. Absolutely. Thank you, Mr. Chairman.

Mr. CLAY. Thank you so much.

Mr. Hodes of New Hampshire, recognized for 5 minutes.

Mr. HODES. Thank you, Mr. Chairman.

In 2008 the GAO issued a report saying the entire 2010 census was high risk. One of the principal reasons was that the Census Bureau failed to develop an integrated and comprehensive plan to

control its costs and manage its operations. Every year since 2004 the GAO made the same recommendation, and every single year it seems the Census Bureau ignored it to the tune of billions of dollars of wasted taxpayers' money.

Mr. Murdock, in your written testimony you say at page three, "We now understand that the problem was due in part to a lack of effective communication between the Census Bureau and the prime contractor, and to difficulties in developing the full scope of the project within deadlines." That's what you said.

I just want to get through and make sure I understand some of what may be euphemism and what you mean. When you say we, are you meaning the royal we, meaning the Census Bureau as a whole?

Mr. MURDOCK. I mean the Census Bureau. Yes. Particularly management.

Mr. HODES. OK. So you acknowledge that the Census Bureau has ignored the GAO's recommendations for developing a comprehensive cost management and planning process since 2004?

Mr. MURDOCK. Well, I was not there, of course, and all I can know is what I have seen in the same documents that you are seeing, and I think we should have followed the advice more fully than we did. But that is easy to say from hindsight.

Mr. HODES. Mr. Waite, you would agree with that?

Mr. WAITE. I would agree that we had plans for every piece that we were testing. We were not working without plans. But we didn't have all those plans integrated.

Mr. HODES. And you also say, Mr. Murdock, that this was due, in part, to a lack of effective communication. How can we be assured that there is now effective communication between the Bureau and the contractor?

Mr. MURDOCK. Well, I think the very program I talked about a few minutes ago, we have recognized that the communication was not what it should have been. We have restructured our program to ensure that communication is there. We recognize, the contractor recognizes that we need to cooperate to ensure that this census is completed on time and as accurately as possible. So we have committed, I think, each part to ensure that we move forward, because both of us, both the contractor and certainly we in the Census Bureau want to get a complete and accurate census.

Mr. HODES. Good. I want to get to the question of the operational requirements, management, and oversight in the following way. Mr. Powner, in 2006 you testified that the Census Bureau had not year approved a baseline set of operational requirements for the contract, am I correct?

Mr. POWNER. That is correct.

Mr. HODES. You also warned that the Census Bureau was planning to rely on the contractor, not its own Government experts, to help refine requirements, project plans, and performance measures, right?

Mr. POWNER. Correct.

Mr. HODES. So it sounds to me like you were warning that the Bureau was relying on Harris to set up the operational requirements.

Mr. POWNER. Clearly there was an over-reliance on the contractor.

Mr. HODES. Now, Harris, through Ms. Janey, has just testified here today that their problem, in large part, was because they weren't getting requirements from the Bureau. You heard that testimony. Can you help me square the testimony you gave and what actually happened? Who failed to do what in terms of the operational requirements, and how can we be assured today that the proper party is going to manage this, oversee it, and set the requirements?

Mr. POWNER. The requirements are clearly the Government's responsibility. OK? So clearly the Government needs to define to the contractor what it wants, so they are primarily at fault. This issue of miscommunication and now that we are communicating that is going to solve the problem, I mean, the problem here was miscommunication. The problem was an over-reliance on the contractor. The problem was poor program management. And also the problem was poor leadership and governance. So that's what needs to occur. We need to shore up the requirements, we need to fix the program management, and we need to get the executives engaged in overseeing this.

That is where we have some concerns, because you just don't flip a switch and then all of the sudden you are performing program management and executive level leadership in a stellar way.

There was a mention of IRS. Years ago that was the problem IT project. Now when you look at their program management and executive level leadership it is one of the better in the Government. Why? Because they worked at it for years. So you can't just flip the switch, so that's a huge concern and that's why we made the comments that the folks at the Department level are going to need to also play a role in overseeing this whole initiative.

Mr. HODES. As you sit here today, you are still not confident that we have in place the management team at the Bureau to get done what you have just said needs to get done?

Mr. POWNER. We still have concerns, and one of our recommendations to the Secretary of Commerce has been when this happens with other agencies and departments, I mean, there are people who have a history of coming in and rescuing problem programs. There are some folks who are very good at doing that. Perhaps we need to look at that and look for help.

Mr. HODES. Thanks very much.

Thank you, Mr. Chairman.

Mr. CLAY. Thank you.

Mr. Sarbanes, you are recognized for 5 minutes.

Mr. SARBANES. Thank you, Mr. Chairman.

Mr. Waite, you said plans weren't integrated. You had plans, but they weren't integrated, right?

Mr. WAITE. Correct.

Mr. SARBANES. Why weren't they integrated?

Mr. WAITE. Well, the integration is a lot more difficult. We were behind schedule, and we would put a plan together, for example, for address canvassing, and we had detailed plans of how to do that address canvassing, but we didn't have that integrated into the operations that would go behind it. We need to do that, and we

are working on that integration, and we now are very, very close to getting that done, but it is too late. It is a lot longer than it should be. It is a very big job. There's literally thousands of activities that need to make sure that they fit together.

Mr. SARBANES. Mr. Powner, do you do integration by having an integration team? And what are the things about this census, if there are things about this census, that make it apparently a so much more complicated management exercise than the last census? In other words, are you prepared to excuse the lack of management that you see based on some new and different dimensions of the way we want to see the census done this time around, or not?

Mr. POWNER. Clearly I don't believe there is an excuse. Many aspects of the operations are similar in that clearly individuals in this room and at this table have experience in conducting prior census. I think there is a unique aspect where they are relying more on technology and they do not have a culture that has a history of effectively acquiring the technology.

I am not saying that is an excuse, but I do think you want experienced individuals managing those technology acquisitions, and clearly there is room for improvement here.

Mr. SARBANES. Is there more reliance this time around on outside contractors because of the technology requirements?

Mr. POWNER. Yes, there is more, but we also had technology with the 2000 census. Interestingly enough, there is some of the same lessons learned. The IG issued a report on the lessons learned from 2000, and this whole requirements issue came up in 2000 where we had cost increases with the technology that was acquired then.

Mr. SARBANES. Mr. Murdock, you all appear to have conceded that there was a breakdown in management, and that has certainly been the observation from the GAO, so I am curious as to specifically what changes in the management process and the people. You don't have to give me names, but what are the kinds of positions, management positions that are being looked at to make sure that going forward this doesn't happen again.

Mr. MURDOCK. Well, we certainly have done a number of things. I talked about the intensification of management, but we are also going to increase the role of our contractor that helps us by watching us from the outside, so to speak, even though they are our contractor, and tell us when we are going away. MITRE is going to play a much more active role in the management of our projects to tell us when we may be doing things that are not in good concert with the best practices.

As I said, we have a new Decennial Director who has experience in IT as well as decennial census. I think, more importantly, we are going to have processes such as recurrent meetings between ourselves and the contractor, daily and biweekly meetings that look at individual risk factors. What are the risks that we are dealing with now? Important to us, or perhaps lacking for us in the past, has been an am the of decisiveness in terms of making decisions in a quick manner so we can move forward to complete our objectives. We are instituting processes that will ensure that decisions are made on key factors in a timely manner.

Very important, as well, is there is a good indication that we didn't do as much testing as we should. The end-to-end testing that

one of the other panelists talked about is a key part of our plans going forward. We are going to ensure that our products are working before we take them to the next stage in development and application.

So we are substantially changing the processes that have been used and we do have people such as myself that are new in this process, but which also have, if you will, a new set of eyes to look at what we have done and to move forward.

Mr. SARBANES. Well, there were so many warnings that came along the way, it is just curious why you didn't do these things, why the Census Bureau didn't respond that way before.

Can I ask one real quick question of Mr. Powner and Mr. Sciré?

Mr. CLAY. Sure.

Mr. SARBANES. Can you just tell us, in terms of the redesign, looking ahead, what are the things that you worry the most about not happening that need to happen, the sort of risk points? Take two or three that maybe aren't keeping you up nights, hopefully, but when you focus on it you could predict that if there is going to be a problem, if there is going to be a breakdown in the redesign, here is where it is going to be and here is when it is going to happen.

Mr. POWNER. Well, from a technology point of view, there are three things that I would still worry about. One is requirements. We still need to stabilize those requirements. There are other contracts. There was a comment made that the DRIS contract is on schedule. It is on schedule after they revised the schedule, so that is not on schedule, and there are still some requirements issues there. So requirements concerns me. Managing the many interfaces, that would concern me. There are a lot of interfaces where these things are going to be interacting together, the various systems, and then testing. There is a lot of testing that is going to need to occur between now and the Decennial.

We were betting that a lot of the testing was going to occur with the dress rehearsal. Now that we have deferred functionality and got in trouble, we are pushing all that, so that makes testing even more important post-dress rehearsal.

So, again, requirements, interfaces, and testing are going to be three areas that we are going to need to watch closely.

Mr. SARBANES. OK. Thank you, Mr. Chairman.

Mr. CLAY. Thank you so much.

Ms. Janey, just a final round of questioning, just for clarification. Has the final version of the hand-held been tested with MAF/TIGER? Mr. Murray, you may testify.

Mr. MURRAY. Good afternoon. Right now the final version of the hand-held with the MAF/TIGER data base has not yet been tested. It has not been tested with the final version because, as Mr. Waite mentioned earlier, there are still a few counties that are still outstanding to be delivered for MAF/TIGER, but that program is currently ahead of schedule on delivering the counties. There are just a few remaining that we have to get. Once those are delivered, then we will go through in the middle of the summer, as I think it was Dr. Murdock mentioned earlier, and we will start the testing with the final software baseline.

Mr. CLAY. Mr. Waite and Dr. Murdock, do you agree with the Mr. Murray's testimony?

Mr. WAITE. Yes. We have three counties that have been delivered by Harris that haven't been quality checked, although we have been getting 99.9 percent approval. We don't expect a problem. When they get done, which should be in just a few weeks, at the most, maybe a few days, then we will have a final version of the TIGER data base.

Harris has tested with the original version of the TIGER data base, so the main difference is that we are updating the street centerlines. We will be ready to test those with that input into the machine next month.

Mr. CLAY. Thank you for that.

Mr. Murray and Ms. Janey, according to the Bureau, many of the requirements that Harris received on January 16, 2008, were modifications to existing requirements. According to their record, 286 of the 418 requirements were clarifications of existing requirements. Harris doesn't see it that way. In your opinion, they are new requirements. How many of the requirements were actually new requirements according to Harris' record, and how many were modifications to or clarifications of requirements that were set before January 16, 2008?

Ms. JANEY. In my testimony, Mr. Chairman, I said that we saw more than 400 new or altered modifications, so we were not presenting that all 400 were new. Our number may disagree some with the Bureau in terms of how many were clarifications, but, as I pointed out in my testimony, at this late stage of development any change requires a significant amount of re-evaluation to ensure that it is going to work, basically.

Mr. CLAY. Of the 418 requirements, how many did Harris agree to complete and how many did you determine you would not be able to complete?

Ms. JANEY. I would ask for a clarification of your question. If your question was including an automated NRFU or assuming a paper-based NRFU.

Mr. CLAY. For the paper.

Ms. JANEY. For paper?

Mr. CLAY. Yes.

Ms. JANEY. In or about 246, there were only about 85 that we said were not able to be done, and there were some that are already implemented and some others that we are still in discussions with the Bureau as to how those will be disposed.

There are some technical ways of handling some of the issues. There are other process ways that the Bureau could opt to handle some of the issues.

Mr. CLAY. And at this time how many of the requirements are not completed?

Ms. JANEY. Well, we haven't begun work on any of the 400 since that was received. We have not been authorized by the Bureau to begin work on any of those.

Mr. CLAY. OK. But you still are under contract?

Ms. JANEY. Excuse me?

Mr. CLAY. You are still under contract, correct?

Ms. JANEY. Yes, sir.

Mr. CLAY. And you intend on performing? But you waited on the OK from the Bureau?

Ms. JANEY. We have to be authorized.

Mr. CLAY. OK.

Mr. MURRAY. What the Bureau has authorized us to do on these requirements is to take them to the design phase. The first step in our design process is a system requirements review and a system design review, and the Bureau has authorized us to take it to that point in the design.

And just one other point of clarification. These 416 or so requirements are not for paper NRFU. The paper NRFU requirements have not yet been defined.

Mr. CLAY. OK. Let me ask about the justification of the new cost estimates for the census, particularly the dramatic increase in the cost of the Harris contract.

Mr. Murdock and Mr. Waite, my understanding is that the cost increases that are under the control of the Census Bureau have been carefully scrubbed and analyzed; is that accurate?

Mr. MURDOCK. Certainly they have been scrubbed. They may be scrubbed some more before they are finalized.

Mr. CLAY. Well, my concern is whether the cost increases for Harris have been subject to the same scrutiny. The contract was originally going to cost about $600 million for over 500,000 handheld computers. Under the new contract, Harris will produce only 150,000 computers, less than half the number called for under the original contract, yet the amount will skyrocket to $1.3 billion. The result is that the taxpayer is now paying twice as much for fewer than half the number of computers.

We are also being told that Harris will now be paid hundreds of millions of dollars just in overhead. This dramatic increase seems hard to justify or to understand. What kind of analysis did the Census Bureau conduct to verify Harris' budget numbers?

Mr. MURDOCK. This is a rough order of magnitude and was represented as such by Harris. It has yet to be evaluated, validated, and negotiated, which is the process that goes forward after a rough order of magnitude is done.

Mr. CLAY. OK. Under the new budget the Census Bureau is going to be running the non-response followup and not Harris, yet I understand that Harris is now going to be paid an extra $80 million for supporting this effort. Harris is doing less but being paid more. How does this make any sense?

Mr. MURDOCK. Well, I think it is important to understand that one of the major activities that they are performing in this whole process is the operational control system. In fact, even though we go to paper, we are still dependent on the operational control system, which is, in a sense, the brains of the operation. It tells us how we are doing in terms of field operations, how many additional places there are to go, what the productivity is of different groups, etc. That process is still being developed by our contractor.

Now, again, we have not, as I said, done the total evaluation on this contract, and that process will go forward.

Mr. CLAY. An operational control system was not part of the original $600 million contract?

Mr. MURDOCK. There was an operational control system, but it was of a different nature. It was for an automated process, not for a paper-based process.

Mr. CLAY. My understanding is that the Commerce Department, not the Census Bureau, took the lead in scrutinizing the new Harris contract terms; is that correct?

Mr. MURDOCK. In terms of that process, the evaluation and so forth has not begun in terms of that process.

Mr. CLAY. OK. So you will work in conjunction with the Commerce Department?

Mr. MURDOCK. We will work in conjunction to do that, yes.

Mr. CLAY. OK. Thank you.

I recognize the gentleman from California.

Mr. ISSA. Mr. Chairman, I will continue in the same line that you have been going.

You know, up until now we have been talking history. I think now we are trying to talk the go-forward on a couple of these areas.

Let me understand, 418 changes, modifications, or clarifications that have occurred. If I understand the normal procedure properly that you are going to follow, Ms. Janey, you receive these. You interpret them. You produce your interpretation of what it is going to take to comply with them. You then come back, and that is what you have been authorized to do. You then come back and say this is what we believe you asked for, this is what we agree to do, and this is what it will cost. Is that roughly the next step?

Ms. JANEY. Yes.

Mr. ISSA. OK. And at that juncture, if you have misunderstood or over-complied, then the Bureau will have the ability to say that is not what we meant, we don't want you to do this, you can do less, there is a simpler way; is that correct?

Ms. JANEY. Yes.

Mr. ISSA. So we are in a position where it is, to a great extent, not in your hands, but in your hands as the Census Bureau to determine how many of these 418 and what they really mean. That is more or less correct. I am seeing nodding, so nobody disagrees here.

So it is a little premature to know what it is going to cost, but the two things we know are some of these 418 will represent material, additional taskings for which there will be additional costs in addition to your cost of preparing it, correct?

Ms. JANEY. That's correct.

Mr. ISSA. And if I understand you correctly, when the decision was made to go from automated to paper, the overhead of your control system, which is the part that the chairman was speaking of, by definition is more expensive, more difficult. Is that also true? I know what it is like to look at an electronic data system that is transferring back and forth with WalMart from my old company, and I know what it was like to go back and forth with invoices. There is no question in my mind which one costs more.

Am I getting that right, that is one of the reasons that I believe $80 million, to a certain extent we are going with a more expensive system or less efficient system than anticipated because of paper; is that right?

Ms. JANEY. Largely, yes. I wouldn't characterize it as more difficult; I would classify it as different. And it should be pointed out again, sir——

Mr. ISSA. I always think of difficult as expensive, for some reason. The dollars are what I was focusing on. And it is more expensive. It is going to take more people, more time, and therefore cost more money.

Ms. JANEY. Yes.

Mr. ISSA. OK. From the GAO's standpoint, do you feel comfortable that you have the transparency necessary with both the vendor and the Bureau to ensure that this latest round of changes doesn't skyrocket and that we are not back here again looking at yet another increase.

I knew I would have one last question that would not necessarily be sure, we can.

Mr. POWNER. Well, right now here is what we would look for. We would want to understand what the process is. I mean, clearly they are going to look at those requirements, the contractor, they are going to come up with costs, schedules, and then the question is: what does the Government do to validate that? That can be done different ways. Some Federal agencies and departments have internal capability to validate contractor schedules and estimates, some don't. And if you don't you can go out and get an independent assessment of that. Also, folks like MITRE can help with that assessment.

I would suggest they get help to make sure that the schedule and the costs are realistic.

Mr. SCIRÉ. If I could just add to that, we are also looking at the cost for the entire Decennial, and part of the estimate you are getting represent more than contract costs.

Mr. ISSA. I realize it is $5 per person per year if you break $50 into 10 years.

Mr. SCIRÉ. Yes.

Mr. ISSA. If you break it into weeks, it is even cheaper.

Mr. SCIRÉ. One of the largest cost elements here is the hiring of half a million temporary field workers, and so assumptions about productivity for those field workers, for example, can have a big affect on the ultimate life cycle costs. Same can be said for the address canvassing operation. While much smaller, if you need far more people and more devices to conduct that because of your finding that individuals are not working as many hours, or, in addition to that, while they are working they are not as effective, you are going to have higher costs.

Mr. ISSA. OK. And we have been called to a vote. I would only, not cynically, but seriously, suggest to the chairman that perhaps one staff member from each side of the dias here needs to be available for all of you to see if, in fact, the predictions made here today stay on schedule, because I know the chairman undoubtedly will call another hearing like this. I would hope between now and then that our staff on either side of the aisle not be blindsided by additional problems.

I, as one, would invite any of you that see a problem to communicate with both the majority and minority so that, in fact, we are

not here again astonished that things have been delayed or derailed.

With that, Mr. Chairman, I thank you very much. This was a very worthwhile hearing.

Mr. CLAY. Thank you for suggesting it, too.

Mr. Sarbanes, you are recognized for a second round, if you would like.

Mr. SARBANES. I do have one question for the GAO. You talked about not having a rehearsal. There is not another major rehearsal coming in terms of doing the testing, so what could happen? I mean, just paint a scenario for me. Could we end up with 500,000 temporary workers out in the field working on something that they are complaining about? I mean, is that a possible scenario? And, along those lines, if the technology is still being worked out while the census takers are being trained, potentially you could have a situation where you are going to have to change direction on them, which could create problems in the field.

I am trying to get a sense practically of what could happen in the field as a result of not getting enough testing done ahead of time.

Mr. SCIRÉ. Right. That's possible, and that is why it is so important to do everything. The Bureau needs to do everything in its power to test and understand and lay out specifically what its plans are for each of these operations.

We have talked about end-to-end testing in terms of the software. There also needs to be testing of the linkages between operations and the systems that support them. That is why I think some of the milestones and benchmarks that we talked about earlier are so important. That's the only thing that is going to give you any assurances that the Bureau will be in a position, come 2010, that they don't experience what you are describing and have to make some fundamental changes in the operations while they are unfolding.

Mr. SARBANES. Thank you.

Mr. CLAY. Thank you, Mr. Sarbanes.

I would hope that the next time the stakeholders of the 2010 decennial census meet we can reassure the American public, we can reassure this panel that we have a clear-cut path to a successful decennial census without all of these issues being on the table, with a real plan that we go forward with it. You certainly will hear again from this committee, and hopefully we will come together knowing just where we are going from there.

Let me thank all of the witnesses for their testimony today.

That concludes the hearing.

[Whereupon, at 4:20 p.m., the committees were adjourned.]

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