AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

2010 CENSUS: ASSESSING THE CENSUS BUREAU'S PROGRESS

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

SECOND SESSION

JUNE 11, 2008

Serial No. 110–172

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

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

U.S. GOVERNMENT PRINTING OFFICE

50–095 PDF WASHINGTON : 2009

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

COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM

HENRY A. WAXMAN, California, *Chairman*

EDOLPHUS TOWNS, New York
PAUL E. KANJORSKI, Pennsylvania
CAROLYN B. MALONEY, New York
ELIJAH E. CUMMINGS, Maryland
DENNIS J. KUCINICH, Ohio
DANNY K. DAVIS, Illinois
JOHN F. TIERNEY, Massachusetts
WM. LACY CLAY, Missouri
DIANE E. WATSON, California
STEPHEN F. LYNCH, Massachusetts
BRIAN HIGGINS, New York
JOHN A. YARMUTH, Kentucky
BRUCE L. BRALEY, Iowa
ELEANOR HOLMES NORTON, District of Columbia
BETTY McCOLLUM, Minnesota
JIM COOPER, Tennessee
CHRIS VAN HOLLEN, Maryland
PAUL W. HODES, New Hampshire
CHRISTOPHER S. MURPHY, Connecticut
JOHN P. SARBANES, Maryland
PETER WELCH, Vermont

TOM DAVIS, Virginia
DAN BURTON, Indiana
CHRISTOPHER SHAYS, Connecticut
JOHN M. McHUGH, New York
JOHN L. MICA, Florida
MARK E. SOUDER, Indiana
TODD RUSSELL PLATTS, Pennsylvania
CHRIS CANNON, Utah
JOHN J. DUNCAN, Jr., Tennessee
MICHAEL R. TURNER, Ohio
DARRELL E. ISSA, California
KENNY MARCHANT, Texas
LYNN A. WESTMORELAND, Georgia
PATRICK T. McHENRY, North Carolina
VIRGINIA FOXX, North Carolina
BRIAN P. BILBRAY, California
BILL SALI, Idaho
JIM JORDAN, Ohio

PHIL SCHILIRO, *Chief of Staff*
PHIL BARNETT, *Staff Director*
EARLEY GREEN, *Chief Clerk*
LAWRENCE HALLORAN, *Minority Staff Director*

SUBCOMMITTEE ON INFORMATION POLICY, CENSUS, AND NATIONAL ARCHIVES

WM. LACY CLAY, Missouri, *Chairman*

PAUL E. KANJORSKI, Pennsylvania
CAROLYN B. MALONEY, New York
JOHN A. YARMUTH, Kentucky
PAUL W. HODES, New Hampshire

MICHAEL R. TURNER, Ohio
CHRIS CANNON, Utah
BILL SALI, Idaho

TONY HAYWOOD, *Staff Director*

CONTENTS

	Page
Hearing held on June 11, 2008	1
Statement of:	
Murdock, Steven H., Director, U.S. Census Bureau, accompanied by Arnold A. Jackson, Associate Director for Decennial Census, and James T. Tyler, Chief, Budget Division; Matthew Scirè, Director, Strategic Issues, Government Accountability Office, accompanied by David Powner, Director, Information Technology Management Issues; Jason F. Providakes, Ph.D., senior vice president and general manager, Center for Enterprise Modernization, the MITRE Corp., accompanied by Glenn Himes, executive director, MITRE; and Michael P. Murray, vice president, census programs, Harris Corp.	14
Murdock, Steven H.	14
Murray, Michael P.	55
Powner, David	39
Providakes, Jason F.	39
Scirè, Matthew	22
Letters, statements, etc., submitted for the record by:	
Clay, Hon. Wm. Lacy, a Representative in Congress from the State of Missouri, prepared statement of	8
Davis, Hon. Tom, a Representative in Congress from the State of Virginia, prepared statement of	5
Maloney, Hon. Carolyn B., a Representative in Congress from the State of New York:	
Information concerning content determinations	74
Prepared statement of	104
Murdock, Steven H., Director, U.S. Census Bureau, prepared statement of	17
Murray, Michael P., vice president, census programs, Harris Corp., prepared statement of	57
Providakes, Jason F., Ph.D., senior vice president and general manager, Center for Enterprise Modernization, the MITRE Corp., prepared statement of	42
Scirè, Matthew, Director, Strategic Issues, Government Accountability Office, prepared statement of	24
Waxman, Chairman Henry A., a Representative in Congress from the State of California, prepared statement of	3

2010 CENSUS: ASSESSING THE CENSUS BUREAU'S PROGRESS

WEDNESDAY, JUNE 11, 2008

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

Washington, DC.

The committee met, pursuant to notice, at 10 a.m., in room 2154, Rayburn House Office Building, Hon. Henry A. Waxman (chairman of the Committee on Oversight and Government Reform) presiding.

Present: Representatives Waxman, Maloney, Kucinich, Clay, Watson, Sarbanes, Davis of Virginia, Shays, Turner, Issa, McHenry, and Foxx.

Staff present from the Committee on Oversight and Government Reform: Kristin Amerling, general counsel; Karen Lightfoot, communications director and senior policy advisor; Mark Stephenson and Anna Laitin, professional staff members; Earley Green, chief clerk; Jen Berenholz, deputy clerk; Ella Hoffman, press assistant; Zhongrui "JR" Deng, chief information officer; Larry Halloran, minority staff director; Jennifer Safavian, minority chief counsel for oversight and investigations; John Cuaderes and Larry Brady, minority senior investigators and policy advisors; Patrick Lyden, minority parliamentarian and member services coordinator; Benjamin Chance and Chris Espinoza, minority professional staff members; and Ali Ahmad, minority deputy press secretary.

Staff present from the Subcommittee on Information Policy, Census, and National Archives: Darryl Piggee, staff director/counsel; Michelle Mitchell and Alissa Bonner, professional staff members; Jean Gosa, clerk; and Charisma Williams, staff assistant.

Chairman WAXMAN. The meeting of the joint hearing of the committee and the subcommittee will come to order.

Two months ago, this committee held a hearing to examine a contract to use hand-held computers to conduct the 2010 census. We learned that due to serious mismanagement, the Census Bureau was forced to abandon its plans for the hand-held computers and to revert to a paper census. These changes will cost the taxpayer up to $3 billion.

The costly decision to return to a paper census was avoidable. For years, the Government Accountability Office and others auditors raised concerns about the Census Bureau's management of the contract. But the Census Bureau failed to respond to these concerns with any sense of leadership or urgency.

At the April hearing, the GAO witnesses described the situation as unacceptable and a failure in management. Chairman Clay and I called today's hearing to find out what progress the Census Bureau has made since early April.

As promised at the April hearing, the Census Bureau has completed a re-plan for the paper-based non-response followup, an integrated project schedule and a software testing plan for address canvassing. The Bureau also has given its contractor, the Harris Corp., a new set of requirements for non-response followup. Today we will ask GAO and the MITRE Corp. to provide their independent assessment of these plans and whether they provide a road map for a successful 2010 census.

Already there are warning signs of further problems. After the April joint committee hearing and at the request of Chairman Clay, the Census Bureau directed MITRE to review Harris Corp.'s $1.3 billion cost estimate. MITRE concluded that the revised contract with Harris Corp. should cost just $726 million, almost half of the contractor's original estimate.

The decennial census is an essential, constitutionally mandated program. Its results have implications for congressional representation and for billions of dollars in Federal funding decisions. We cannot afford to get this wrong. The 2010 census will take place in less than 22 months. This date cannot be changed and it cannot be delayed. The committee will not stop its efforts to determine what went wrong, but our primary goal today will be getting the census back on track.

Mr. Davis, I want to recognize you for an opening statement.

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

HENRY A. WAXMAN, CALIFORNIA,
CHAIRMAN

TOM LANTOS, CALIFORNIA
EDOLPHUS TOWNS, NEW YORK
PAUL E. KANJORSKI, PENNSYLVANIA
CAROLYN B. MALONEY, NEW YORK
ELIJAH E. CUMMINGS, MARYLAND
DENNIS J. KUCINICH, OHIO
DANNY K. DAVIS, ILLINOIS
JOHN F. TIERNEY, MASSACHUSETTS
WM. LACY CLAY, MISSOURI
DIANE E. WATSON, CALIFORNIA
STEPHEN F. LYNCH, MASSACHUSETTS
BRIAN HIGGINS, NEW YORK
JOHN A. YARMUTH, KENTUCKY
BRUCE L. BRALEY, IOWA
ELEANOR HOLMES NORTON,
DISTRICT OF COLUMBIA
BETTY MCCOLLUM, MINNESOTA
JIM COOPER, TENNESSEE
CHRIS VAN HOLLEN, MARYLAND
PAUL W. HODES, NEW HAMPSHIRE
CHRISTOPHER S. MURPHY, CONNECTICUT
JOHN P. SARBANES, MARYLAND
PETER WELCH, VERMONT

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

MAJORITY (202) 225–5051
FACSIMILE (202) 225–4784
MINORITY (202) 225–5074

www.oversight.house.gov

TOM DAVIS, VIRGINIA,
RANKING MINORITY MEMBER

DAN BURTON, INDIANA
CHRISTOPHER SHAYS, CONNECTICUT
JOHN M. MCHUGH, NEW YORK
JOHN L. MICA, FLORIDA
MARK E. SOUDER, INDIANA
TODD RUSSELL PLATTS, PENNSYLVANIA
CHRIS CANNON, UTAH
JOHN J. DUNCAN, JR., TENNESSEE
MICHAEL R. TURNER, OHIO
DARRELL E. ISSA, CALIFORNIA
KENNY MARCHANT, TEXAS
LYNN A. WESTMORELAND, GEORGIA
PATRICK T. MCHENRY, NORTH CAROLINA
VIRGINIA FOXX, NORTH CAROLINA
BRIAN P. BILBRAY, CALIFORNIA
BILL SALI, IDAHO
JIM JORDAN, OHIO

Opening Statement of Rep. Henry A. Waxman
Chairman, Committee on Oversight and Government Reform
2010 Census: Assessing the Census Bureau's Progress
June 11, 2008

Two months ago, this Committee held a hearing to examine a contract to use handheld computers to conduct the 2010 Census. We learned that due to serious mismanagement, the Census Bureau was forced to abandon its plans for the handheld computers and to revert to a paper census. These changes will cost the taxpayer up to $3 billion.

The costly decision to return to a paper census was avoidable. For years, the Government Accountability Office and other auditors raised concerns about the Census Bureau's management of the contract. But the Census Bureau failed to respond to these concerns with any sense of leadership or urgency. At the April hearing, the GAO witnesses described the situation as "unacceptable" and a "failure in management."

Chairman Clay and I called today's hearing to find out what progress the Census Bureau has made since early April. As promised at the April hearing, the Census Bureau has completed a re-plan for the paper-based non-response follow-up, an integrated project schedule, and a software testing plan for address canvassing. The Bureau also has given its contractor, the Harris Corporation, a new set of requirements for non-response follow-up. Today we will ask GAO and the MITRE Corporation to provide their independent assessment of these plans and whether they provide a road map for a successful 2010 Census.

Already there are warning signs of further problems. After the April joint committee hearing and at the request of Chairman Clay, the Census Bureau directed MITRE to review Harris Corporation's $1.3 billion cost estimate. MITRE concluded that the revised contract with Harris Corporation should cost just $726 million, almost half of the contractor's original estimate.

The decennial census is an essential, constitutionally mandated program. Its results have implications for congressional representation and for billions of dollars in federal funding decisions. We cannot afford to get this wrong. The 2010 Census will take place in less than 22 months. This date cannot be changed, and it cannot be delayed. The Committee will not stop its efforts to determine what went wrong, but our primary goal today will be getting the census back on track.

Mr. DAVIS OF VIRGINIA. Thank you, Chairman Waxman, and Chairman Clay. I appreciate your calling this hearing to continue our committee's oversight into the problems with the 2010 census.

As some of us have known for quite some time, and at our hearing on April 29th, it was revealed the decennial census is in peril. Unfortunately, little has changed since we last met. While we do need to continue to examine the root causes of the problem, our primary focus needs to be on the future and ensuring that the enumeration is successful.

Mr. Chairman, what worries me the most is that we are still no closer to a solution today than we were 2 months ago. There is no agreement between the Census Bureau and the prime contractor on a revised technology platform. The decision to revert to a paper system for non-response followups is still in planning stages. We no longer have the luxury of measuring progress in months or even weeks. Progress has to come daily, with very little room left for further error.

At the current glacial pace, I am afraid the Bureau will not be ready to meet the one deadline that cannot be extended: the constitutional mandate to count all Americans in 2010. The situation didn't arise yesterday or even last month. GAO warned us of this possibility 3 years ago. MITRE's initial report containing serious alarms about the technology program was issued a year ago. The Census Bureau acknowledged the crisis 8 months ago. A decision was made to dramatically alter the previous census plan 4 months ago. Yet today we have only minimal progress toward finalizing critical requirements and validating cost estimates for a successful census.

Still, some of those warnings finally seem to have hit home. The Census Bureau and the Commerce Department have focused on linger problems with a new sense of urgency. Just as importantly, improved communication and cooperation between the technology contractor, Harris Corp., and the Bureau reduce the risk of continued sideways drift in the implementation of critical, time-sensitive census preparations.

We should bring the same sense of urgency to our efforts to get the 2010 census back on track. First and foremost, we need to help the Bureau identify and secure the funding needed for the revised 2010 census plan. To do that, we need well-supported, should-cost estimates of key census tasks and components. But today we will be confronted with widely divergent figures.

I hope testimony at this hearing clarifies cost projections, flushes out conflicting and unsupported assumptions and begins to reconcile those important numbers. Every minute and every dollar matters as the clock ticks relentlessly toward 2010. This hearing and others we will need to convene should mark essential benchmarks toward a successful census. I look forward to continuing a constructive bipartisan approach to these issues.

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

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

Majority (202) 225-5051
Minority (202) 225-5074

Statement of Rep. Tom Davis
Ranking Republican Member
Committee on Oversight and Government Reform
"2010 Census: Assessing the Census Bureau's Progress"
June 11, 2008

Chairman Waxman and Chairman Clay, I appreciate your calling this hearing to continue our committee's oversight into the problems with the 2010 Census. As some of us have known for quite some time, and as our hearing on April 9 revealed, the decennial census is in peril. Unfortunately, little has changed since we last met. While we do need continue to examine the root causes of the problem, our primary focus needs to be on the future and ensuring the enumeration is successful.

Mr. Chairman, what worries me most is that we are still no closer to a solution today than we were two months ago. There is no agreement between the Census Bureau and the prime contractor on a revised technology platform. The decision to revert to a paper system for non-response follow-up is still in the planning stages. We no longer have the luxury of measuring progress in months or even weeks. Progress has to come daily, with very little room left for further error. At the current glacial pace, I'm afraid the Bureau will not be ready to meet the one deadline that cannot be extended – the Constitutional mandate to count all Americans in 2010.

This situation didn't arise yesterday, or even last month. GAO warned us of this possibility three years ago. MITRE's initial report containing serious alarms about technology program was issued one year ago. The Census Bureau acknowledged the crisis eight months ago. A decision was made to dramatically alter the previous census plan four months ago. Yet today we have made only minimal progress finalizing critical requirements and validating cost estimate for a successful census.

Still some of those warnings finally seem to have hit home. The Census Bureau and Commerce Department have focused on lingering problems with a new sense of urgency. Just as importantly, improved communication and cooperation between the technology contractor, Harris Corporation, and the Bureau, reduces the risk of continued sideways drift in the implementation of critical, time-sensitive census preparations.

We should bring the same sense of urgency to our efforts to get the 2010 census back on track. First and foremost, we need to help the Bureau identify and secure the funding needed for the revised 2010 census plan. To do that, we need well-supported "should cost" estimates of key census tasks and components. But today we'll be confronted with widely divergent figures. I hope testimony at this hearing clarifies cost projections, flushes out conflicting and unsupported assumptions, and begins to reconcile those important numbers.

Every minute, and every dollar, matters as the clock ticks relentlessly toward 2010. This hearing, and others we will need to convene, should mark essential benchmarks toward a successful census, and I look forward to continuing a constructive, bipartisan approach to these issues.

Chairman WAXMAN. Thank you, Mr. Davis.

Chairman Clay.

Mr. CLAY. Mr. Chairman, thank you for holding this hearing on the progress of the 2010 census.

The first hearing of the Information Policy, Census, and National Archives Subcommittee in the 110th Congress was entitled "Progress of the Reengineered 2010 Census," and held on April 24, 2007. At that hearing, the subcommittee received testimony from the Census Bureau, GAO and the Harris Corp. on several issues, including the mobile computing devices, as the hand-held computers were called at that time; the Bureau's plans to conduct a short-from only census; replacement of the long form with the American Community Survey; and the Local Update of Census Addresses Program, all critical components of the reengineered census.

At that hearing, GAO expressed concern about the lack of performance requirements for the field data collection automation program. Since then, we have learned about other serious problems, problems that prompted the full committee to hold a joint hearing with the subcommittee to examine the status of FDCA. The Census Bureau and Harris vowed to work together to address this problem.

Since April 9th, the staff of the committee and subcommittee have held a series of briefings with the Census Bureau, GAO, the MITRE Corp. and Harris Corp. to get updates on the progress made since the hearing. Staff has been assured by the Bureau and Harris that progress is being made. We will find out today.

Mr. Chairman, although it is important to know what happened and why it happened, my major interest today is in solutions; what are the Census Bureau and the contractor doing to resolve all outstanding issues and get the 2010 census back on track? I do not want to hear excuses. We are running out of time. We are less than 2 years away from census day. I expect to hear concrete and viable plans today.

Thank you, Mr. Chairman. I yield back.

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

Opening Statement
Wm. Lacy Clay, Chairman
Information Policy, Census, and National Archives Subcommittee

"2010 Census: Assessing the Census Bureau's Progress"

Joint Hearing
Oversight and Government Reform Committee

Wednesday, June 11, 2008
2154 Rayburn HOB
10:00 a.m.

Mr. Chairman, thank you for holding this hearing on the progress of the 2010 Census.

The first hearing of the Information Policy, Census, and National Archives Subcommittee in the 110th Congress was entitled "Progress of the Reengineered 2010

Census" and held on April 24, 2007. At that hearing, the subcommittee received testimony from the Census Bureau, GAO and the Harris Corporation on several issues, including the mobile computing devices (MCDs) as the handheld computers were called at that time; the Bureau's plans to conduct a short-form only census; replacement of the long form with the American Community Survey; and the Local Update of Census Addresses Program,

all critical components of the reengineered census.

At that hearing, GAO expressed concern about the lack of performance requirements for the Field Data Collection Automation (FDCA) program. Since then, we have learned about other serious problems; problems that prompted the Full Committee to hold a joint hearing with the subcommittee to examine the status of FDCA. The Census Bureau and Harris

vowed to work together to address the problems.

Since April 9th, the staff of the Committee and subcommittee have held a series of briefings with the Census Bureau, GAO, the Mitre Corporation, and Harris Corporation to get updates on the progress made since the hearing. Staff has been assured by the Bureau and Harris that progress is being made. We will find out today.

Mr. Chairman, although it is important to know what happened and why it happened, my major interest today is in SOLUTIONS! What are the Census Bureau and the contractor doing to resolve all outstanding issues and get the 2010 Census back on track! I do not want to hear excuses! We are running out of time! We are less than 2 years away from Census Day. I expect to hear concrete and viable plans today.

Thank you.

Chairman WAXMAN. Thank you very much, Chairman Clay.

Without objection, the record will stay open for any opening statement that Members wish to put into the record.

We have with us for our witnesses the Honorable Steven H. Murdock, the Director of the U.S. Census Bureau. Dr. Murdock is the former State Demographer for Texas. He is accompanied by Mr. Arnold Jackson, Associate Director for decennial census and Mr. Jay Tyler, Budget Director for the Bureau.

Before we recognize the witnesses, I do want to recognize our colleague, Mr. Turner, for an opening statement.

Mr. TURNER. Mr. Chairman, thank you. Thank you for allowing me to make a statement. I apologize for running a little bit late to get to the hearing. I want to thank you and our ranking member for your attention to this issue on the progress of the 2010 decennial census.

It has been 2 months since our last hearing on the revamped plans for the 2010 census. It has been 2 months, and yet many believe we have seen little progress. The Bureau has completed their planning for the paper-based census, but little to no progress has been made on key programs, such as addressing canvassing and non-responsive followup.

Why is it that we are 1 year removed from the address canvassing dress rehearsal and yet the Bureau is just now presenting a plan on how to move forward on this aspect of the 2010 census? Clearly, this plan could have been presented and implemented much earlier.

It has been 4 months since the Bureau changed to a paper nonresponsive followup, yet the Bureau just settled 5 days ago on the requirements of this key aspect in 2010. In fact, it will be likely mid-August until we know if the plans that they now have for the paper census are even accomplishable.

Mr. Chairman, the Bureau is measuring success by their ability to have plans. We should insist success be measured by their ability to run a census and not what they can produce on paper. The decennial census is important for every person living in the United States. It is important to me and for every Member of Congress who wants to understand who their constituents are. We should not settle for mediocrity, especially when we know this is something that can be done. After all, this is our country's 23rd census, so we know what we are asking for can be accomplished; we know it can be done.

I hope this committee continues to oversee this very important issue and I appreciate your holding these hearings. It is imperative we get to the 2010 decennial census, that it get back on track. I yield back the balance of my time.

Chairman WAXMAN. Thank you very much.

Dr. Murdock will be joined by Mr. Arnold Jackson and Mr. Jay Tyler. Mr. Matthew Scirè is the Director of Strategic Issues at the GAO and oversees GAO's work on the 2010 census. With him is Mr. David Powner, Director of Information Technology Management Issues at GAO. 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 pro-

grams. He is accompanied by Dr. Glenn Himes, MITRE's executive director. Mr. Michael Murray is vice president of census programs at Harris Corp., and is responsible for the field data collection automation and MAF/Tiger programs.

We are pleased to welcome all of you to our hearing today. It is the practice of this committee that all witnesses who testify do so under oath. So I would like to ask everyone that is going to participate in answering questions and giving testimony to please rise and raise your right hands.

[Witnesses sworn.]

Chairman WAXMAN. The record will indicate that all the witnesses answered in the affirmative.

Dr. Murdock, we want to start with you. Your prepared statements, and this is true for everyone, will be part of the record. We would like to ask, if you would, to try to limit the oral presentation to 5 minutes. We will have a clock, I will turn it on in a minute, it will be green for 4 minutes, then the last minute it will turn yellow, then when the time is up, it will turn red. When you see the red light, please plan to conclude.

There is a button on the base of the mic. Be sure it is on. We are looking forward to hearing what you have to say.

STATEMENTS OF STEVEN H. MURDOCK, DIRECTOR, U.S. CENSUS BUREAU, ACCOMPANIED BY ARNOLD A. JACKSON, ASSOCIATE DIRECTOR FOR DECENNIAL CENSUS, AND JAMES T. TYLER, CHIEF, BUDGET DIVISION; MATTHEW SCIRÈ, DIRECTOR, STRATEGIC ISSUES, GOVERNMENT ACCOUNTABILITY OFFICE, ACCOMPANIED BY DAVID POWNER, DIRECTOR, INFORMATION TECHNOLOGY MANAGEMENT ISSUES; JASON F. PROVIDAKES, PH.D., SENIOR VICE PRESIDENT AND GENERAL MANAGER, CENTER FOR ENTERPRISE MODERNIZATION, THE MITRE CORP., ACCOMPANIED BY GLENN HIMES, EXECUTIVE DIRECTOR, MITRE; AND MICHAEL P. MURRAY, VICE PRESIDENT, CENSUS PROGRAMS, HARRIS CORP.

STATEMENT OF STEVEN H. MURDOCK

Mr. MURDOCK. Thank you, Mr. Chairman, members of the committee. I would like to thank all of you for the opportunity to brief you again on the status of the 2010 census, and in particular, our ongoing efforts to address the problems associated with the Field Data Collection Automation [FDCA], program.

Recent hearings have appropriately focused on our contract with the Harris Corp. and our efforts to rescope the FDCA program. As you know, addressing the problems associated with FDCA has been my priority since I arrived just a little over 5 months ago. After the problems became clear, I established the risk reduction task force, chaired by former Deputy Director William Barron. The task force's work was then reviewed by an expert panel established by the Secretary. The task force's recommendations were confirmed by the expert panel and the Secretary made the decision that we should move forward on a paper-based non-response followup operation, while retaining the use of the hand-held computers in address canvassing.

In addition to our decision to move to a paper-based non-response followup operation, we have been laying the groundwork to ensure that the remaining FDCA operations are successful. We are making progress in our work with Harris and have begun embedding Census Bureau staff in Harris' operations and incorporating staff from Harris into the 2010 census operations. As a result, communication has improved. We produced our final requirements for the paper-based NRFU operation on June 6th, and we have secured an agreement with Harris to provide their final cost estimates by July 15th.

We also have initiated a contingency planning process that is assessing our options relative to the FDCA process and contract. You will hear today about the independent cost estimate we asked MITRE Corp. to develop as part of our preparation for the upcoming negotiation with Harris, which we initiated in response to subcommittee Chairman Clay's recommendation. This work by MITRE has been extremely valuable to us.

As we work with Harris to finalize the terms for building and implementing an efficient and successful FDCA system, we will consider the independent cost estimate, as well as the specific information in Harris' cost estimate, and our own understanding of the critical functionality that the FDCA system must contain to ensure a successful 2010 census. My commitment to the committee is that our final contract will be clearly justified and that our management of the contract will be transparent and rigorous.

I last appeared before this committee on April 9th. At that time, I committed the Census Bureau to meeting three significant deliverables. In 30 days, we would produce the detailed plans for the paper-based NRFU operation. This was necessary because of the decision to change the operation that had been made by the Secretary.

In 45 days, we pledged to complete development of an integrated schedule for all 2010 census operations. This was needed due to the effects of the changes in the 2010 design, their impacts on other parts of the census operations.

Finally, we committed that in 60 days, we would establish the testing plan for the address canvassing operation. This was necessary because the task force had indicated and the expert panel concurred that the existing plan for testing needed supplementation. Since that hearing, our decennial census staff has worked around the clock, and I am proud to report that we met our deadlines for completing each of these three building blocks. As you requested, Mr. Chairman, we also have briefed your staff on each of these deliverables.

In addition, we finalized the 2010 project management plan, developed the 2010 census risk register and finalized the 2010 census risk management plan. This is a substantial body of work, and it reflects the commitment of the Census Bureau staff and leadership to establishing a framework to ensure a high quality 2010 census. I am submitting each of these products for the record.

This work does not begin to cover the full range of 2010 census operations. But the fundamental components of our work to address the problems with FDCA are now in place, and key work products are at or nearly completed to ensure a successful 2010

census. It is important to remember that the FDCA contract is only part of the 2010 census. Mr. Chairman, in our work together, it is vital for this committee to be fully appraised on the full range of ongoing decennial census operations. I will come back to the committee to discuss other crucial operations, including the communications program, the partnership program, the local update of census addresses program, and other automated systems.

Thank you for the opportunity to bring you up to date on the 2010 census. I am joined by Arnold Jackson, the Associate Director for decennial census, and Jay Tyler, chief of our Budget Division. We will be happy to take your questions.

[The prepared statement of Mr. Murdock follows:]

PREPARED STATEMENT OF
STEVE H. MURDOCK
DIRECTOR
US CENSUS BUREAU

2010 Census Status Update

Before the House Committee on Oversight and Government Reform

11 June 2008

Mr. Chairman, Members of the Committee, I would like to thank you for this opportunity to brief you again on the status of the 2010 Census, and in particular, our ongoing efforts to address the problems associated with the Field Data Collection Automation (FDCA) Program.

Recent hearings have appropriately focused on our contract with Harris Corporation, and our efforts to re-scope the FDCA program. As you know, addressing the problems associated with FDCA has been my priority since I arrived five months ago. The problems with FDCA had become apparent as a result of the Address Canvassing Dress Rehearsal, and they were clarified as a result of the work of our Integrated Program Team established by our Deputy Director. When we received the contractor's rough order of magnitude and recognized additional difficulties, I established the Risk Reduction Task Force, chaired by former Deputy Director William Barron. The task force's work was then reviewed by an Expert Panel established by the Secretary. The Task Force's recommendation, confirmed by the Expert Panel and the Secretary, was to move to a paper-based Nonresponse Follow-up (NRFU) operation while retaining the use of the handheld computers in address canvassing. This is a decision I fully support because it increases our control of 2010 Census systems development while allowing 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.

In addition to our decision to move to a paper-based Nonresponse Follow-up (NRFU) operation, we have been laying the groundwork to ensure that the remaining FDCA operations are successful. We are making progress in our work with Harris and have begun embedding Census Bureau staff in Harris's operation and incorporating staff from Harris into the 2010 Census operations. As a result, communication has improved. We produced our final requirements for the paper-based NRFU operation on June 6, 2008, and we have secured an agreement from Harris to provide their final cost estimate by July 15. We also have initiated a contingency planning process that is assessing our options relative to the FDCA process and contract.

You will hear today about the independent cost estimate we asked MITRE Corporation to develop as part of our preparation for the upcoming negotiations with Harris, which we initiated in response to Subcommittee Chairman Clay's recommendation. This work by MITRE has been extremely valuable to us. As we work with Harris to finalize the terms for building and implementing an efficient and successful FDCA system, we will consider the independent cost estimate as well as the specific information in Harris's cost estimate and our own understanding of the critical functionality that the FDCA system must contain to ensure a successful 2010 Census. . My commitment to the Committee is that our final contract will be clearly justified, and that our management of the contract will be transparent and rigorous.

It is important to remember that the FDCA contract is only one part of the 2010 Census. Mr. Chairman, in our work together it is vital for this Committee to be fully apprised on the full range of ongoing decennial census operations.

I last appeared before this committee on April 9. At that time I committed the Census Bureau to meeting three significant deliverables: In 30 days, (by May 9), we would produce the detailed plan for the paper-based NRFU operation; in 45 days (by May 24) we would complete development of the integrated schedule for all 2010 Census operations; and in 60 days (by June 8) we would establish the testing plan for the Address Canvassing operation. We regarded these dates as internal deadlines for producing the work products. Since that hearing, our decennial census staff have been working around the clock, and I am proud to report that we met our deadlines for completing each of these three key building blocks, and as you requested, we also have briefed your staff on each of these deliverables. In addition, we finalized a 2010 Program Management Plan, developed the 2010 Census Risk Register, and finalized the 2010 Census Risk Management Plan.

This is a substantial body of work, and it reflects the commitment of the Census Bureau's staff and leadership to establishing a framework to ensure a high quality 2010 Census. I would like to take a few minutes to outline each of these products, which I am submitting to the Committee along with my testimony.

2010 Census NRFU Re-Plan (Completed May 9)
Once we made the decision to re-scope the FDCA program, we needed to re-design the NRFU operation, the largest, most complex and costly operation in the 2010 Census. NRFU must be conducted within a tight 10-week time frame in order to preserve data quality and meet our Constitutionally mandated deadlines. In the absence of hand-held devices, NRFU will now be conducted using paper maps, paper address registers, paper assignment tracking reports and paper enumerator questionnaires and forms. It will leverage information technology from the FDCA operations control system to manage and control assignments in the field. The detailed re-plan for NRFU is now complete, and it includes important new innovations that will allow us to update enumerator assignments four times, compared to just once during Census 2000. Removing households that responded to the census after the NRFU operation begins saves money by decreasing the number of households we have to contact directly. Incorporating additional updates is a significant improvement over Census 2000.

2010 Census Integrated Schedule (Completed May 23)
The 2010 Census is a complex program composed of 44 major independent operations incorporating over 11,000 unique activities needed to conduct the census. The 2010 Census Integrated Schedule delineates the time schedules relative to these operations and activities and outlines their interrelationships. These are sequenced, and dependent upon one another. Census Bureau staff have established the detailed schedule that outlines when each activity must begin and end. This schedule will be managed utilizing computer software that monitors and reports on the detailed components of each activity, allowing staff and leadership to understand and respond to the ramifications of schedule changes. It is easy to underestimate the complexity of the decennial census. The schedule itself tracks over eleven thousand distinct activities, some of which summarize bundles of additional sub-activities. The software we use was proven in Census 2000, and reports from the system identify potential problems early so that management can act quickly to make sure that the 2010 Census, which is already underway, stays on track.

2010 Census Address Canvassing Testing Plan (Completed June 6)
The current plan for the Decennial Address Canvassing operation relies primarily on the Field Data Collection Automation (FDCA) contract to supply substantial portions of software for the operation. Given the experience in the Dress Rehearsal, a comprehensive, logical test plan is critical leading up to the production field activity in April 2009. The Census Bureau's test plan is organized into five comprehensive categories: FDCA testing, Large Block testing, Geography Division's testing, Interface testing (primarily FDCA interfaces with the Census Bureau), and an Operational Field Test. This plan lays out a logical flow of test activities, involves Census Bureau stakeholders throughout, details the dates and purposes of each test, and ends with a confirmation test that puts all the pieces together in an environment that replicates actual census conditions.

2010 Census Program Management Plan
The 2010 Census Program Management Plan will inform decennial census staff and contractors how issues are resolved and decisions are made regarding the 2010 Census. The Census Bureau is a matrix organization with functional and operational responsibility distributed among the various divisions and offices of the agency. There are eight key implementing divisions for the decennial census: The Decennial Management Division, the Decennial Contracts Management Office, The Decennial Systems and Processing Office, the Decennial Statistical Studies Division, the Geography Division, the Technologies Management Office, the Field Division, and the National Processing Center. The Management Plan ensures coordination throughout the organization involved with myriad, interconnected census operations and activities, and establishes clear lines of authority and mechanisms enabling leadership to focus on problems as they arise. An important and essential component of this plan is that it outlines the decision making process and structure to ensure that timely decisions are made.

2010 Census Risk Register and Management Plan
Risk mitigation is an ongoing process that involves the highest levels of the agency. The 2010 Census Risk Register and Management Plan ensures that risks are identified and managed by the teams overseeing each of the key 2010 Census operations. High risks are reported immediately to senior management, and mitigation plans are developed and adjusted as appropriate. To date, 25 program-level risks have been identified, and we have established a Risk Review Board to monitor these risks to ensure their effective management.

The work I have outlined does not begin to cover the full range of 2010 Census Operations. My intent has been to show that the fundamental components of our work to address the problems with FDCA are now in place, and that key work products are at or nearing completion to ensure a successful 2010 Census. I will come back to the Committee to discuss other crucial operations including the Communications program, the Partnership program, the Local Update of Census Addresses program, and our other automated systems.

Thank you for this opportunity to bring you up to date on the 2010 Census. I am joined by Arnold Jackson, Associate Director for Decennial Census; and Jay Tyler, Chief of our Budget Division. We are happy to take your questions.

Chairman WAXMAN. Thank you very much, Dr. Murdock.

Mr. Scirè.

STATEMENT OF MATTHEW SCIRÈ

Mr. SCIRÈ. 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 is David Powner, Director with GAO's Information Technology Team, who has been reviewing the Census Bureau's major information technology investments.

Two months ago, we appeared before this committee to discuss the Bureau's plans for conducting the 2010 census. We highlighted a number of challenges the Bureau faced and the need for action along several fronts, including the redesign of the largest census field operation non-response followup.

Today we can report that the Bureau has taken some important steps toward preparing for 2010, though there remains uncertainty and substantial risk. In April, the Director set the Bureau on a path to produce three documents intended to strengthen implementation of the 2010 census. The Bureau has produced them, and as a result of this committee's continuing attention, the Bureau is another step closer to being prepared for conducting the 2010 census.

I will briefly outline some of the steps the Bureau has taken and some of the uncertainty that remains. Last April, we noted that moving to a paper-based, non-response followup operation would mean that the Bureau may be unable to conduct a full dress rehearsal of its critical and largest field operation. At that time, we said it would be important for the Bureau to specify how it would provide assurance that this operation will be tested in the absence of a full dress rehearsal.

On May 8th, the Bureau produced a NRFU operational concept which provides an overview of the major activities, information flows and systems that will be needed to complete non-response followup operations. However, it is not certain when and how the Bureau will test its revised plans for this operation.

In April, we also said that the Bureau needed to establish plans for working around limitations in the technology to be used in address canvassing. The Bureau has done more to describe its workaround for large blocks, and last Friday produced an address canvassing testing plan. This plan describes various testing of operations and systems, including testing of software to be used in large blocks. The plan also envisions conducting a partial re-do of the dress rehearsal to validate the functionality of the entire system.

I will defer to my colleague in describing the Bureau's plans for testing this key field data collection automation system.

Three weeks ago, the Bureau produced an integrated schedule of over 11,000 activity milestones, as well as a summary of 175 key operational milestones. Nonetheless, the Bureau does not include among its list of key milestones a date when it expects to complete testing of its systems and operations for non-response followup. Last week, the Bureau produced a revised summary of high-level risks. But it has yet to assess project risk associated with its movement to a paper-based operation.

We are currently reviewing in greater detail the summary of key milestones, the integrated schedule of milestones as well as the recently completed risk management documentation. Going forward, it will be important for the Bureau to ensure that among the key milestones and activities highlighted for oversight are those whose success or failure represent the greatest impact on the ultimate cost and quality of the 2010 census.

The Bureau has taken some additional steps to manage its revised operations. It added temporary action officers to its 2010 governance structure. These officers ensure tasks and milestones for six key objectives, including preparing a testing plan, are met. The Bureau has also established regular status reporting from teams and action officers and the Bureau Director has a standing weekly meeting with the Deputy Secretary.

In April, we emphasized the urgent need for the Bureau to address significant and longstanding weaknesses in managing information technology. We do so again today. In April, we said that the Bureau needed to finalize requirements for its field data collection automation contract. Today, the Bureau has finalized these requirements, but does not expect to finalize costs until mid-August. 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. Before I do, I want to thank you again for the opportunity to speak to you today. As in the past, we look forward to supporting this committee's efforts. I would be glad to take any questions that you may have.

[The prepared statement of Mr. Scirè 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

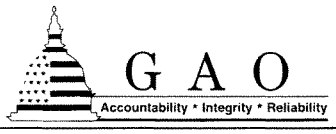
For Release on Delivery
Expected at 10:00 a.m. EDT
Wednesday, June 11, 2008

2010 CENSUS

Plans for Decennial Census Operations and Technology Have Progressed, But Much Uncertainty Remains

Statement of Mathew J. Scirè
Director, Strategic Issues

David A. Powner
Director, Information Technology Management Issues



GAO-08-886T

June 11, 2008

GAO
Accountability·Integrity·Reliability

Highlights

Highlights of GAO-08-886T, a testimony to the Committee on Oversight and Government Reform and the Subcommittee on Information Policy, Census, and National Archives, House of Representatives

2010 CENSUS

Plans for Decennial Census Operations and Technology Have Progressed, But Much Uncertainty Remains

Why GAO Did This Study

On April 3, 2008, the Secretary of Commerce announced significant changes to how the Census Bureau (Bureau) would conduct nonresponse follow-up, its largest field operation, in which census workers interview households that do not return initial census forms for the 2010 decennial census, and to its Field Data Collection Automation (FDCA) contract. The Bureau has since issued a redesigned plan to conduct a paper-based follow-up operation, an integrated 2010 Census project schedule, and is working on revising the FDCA contract. These are major changes late in the decennial census cycle. This testimony discusses (1) the Bureau's plans for conducting a paper-based nonresponse follow-up operation, (2) management of the FDCA contract and its latest cost estimates, and (3) the status of the Bureau's integrated 2010 project schedule. This testimony is based on past work, recent interviews with Bureau officials, and a review of redesign documents.

What GAO Recommends

At this time GAO is not making any new recommendations.

To view the full product, including the scope and methodology, click on GAO-08-886T. For more information, contact Mathew Scirè at (202) 512-6806 or sciremj@gao.gov or David Powner at (202) 512-9286 or pownerd@gao.gov.

What GAO Found

The Bureau has taken important steps to plan for a paper-based nonresponse follow-up operation, but several aspects remain uncertain. On May 8, 2008, the Bureau issued a paper-based nonresponse follow-up plan that details key components of the operation and describes processes for managing it and other operations. However, the plan envisions using an information system to manage the field operation workload, which experienced significant problems when tested earlier in the dress rehearsal. These problems make it more critical to test the system's capabilities for supporting the nonresponse follow-up operation. The Bureau will also institute new strategies—through second mailings and a new approach to remove late mail returns—but has only tested some aspects of these operations and will be unable to test them in a dress rehearsal, making it difficult to estimate their impact on operations in 2010. Ideally, the dress rehearsal should test almost all of the operations and procedures planned for the decennial under as close to census-like conditions as possible. Bureau officials expect that some small-scale testing will occur, particularly integration testing for its operations control system and cognitive testing of the forms used by enumerators for nonresponse follow-up, but what will be tested and when is not yet certain.

The Bureau has taken several positive steps to address FDCA program management and oversight, but cost estimates need reconciling. The Bureau has taken actions to strengthen the FDCA program office leadership and expertise. To lead the program office, the Bureau has assigned an experienced Census program manager and hired an outside information technology expert to provide executive level guidance. The Bureau has also taken actions to improve communications and transparency of contractor activities. Further, the Bureau has obtained an independent government cost estimate based on the changes to the FDCA program's scope, which is nearly $600 million less than the contractor's rough order of magnitude estimate. After the contractor develops its detailed cost estimate, then the Bureau will need to reconcile the two cost estimates and renegotiate the contract. The Bureau will need to ensure that the final contract modifications and terms allow for FDCA program activities to be conducted in a timely and accurate manner for the 2010 decennial census.

The Bureau's integrated schedule, dated May 22, 2008, identifies over 11,000 activities and milestones for the census. There is overlap in the testing and deployment schedule for the handheld device that will be used to collect address data in the field. Further, the Bureau's summary of key milestones does not include a milestone for when testing of key activities related to nonresponse follow-up will take place. Such milestones are important because nonresponse follow-up is the single largest field operation and will not be part of a dress rehearsal. The Bureau recognizes that it could include a key milestone for nonresponse follow-up testing activities. GAO is reviewing in greater detail the summary and integrated schedule of milestones and a summary of program risks provided on June 4th.

Mr. Chairmen and Members of the Committee and Subcommittee:

We are pleased to be here today to discuss the Census Bureau's (Bureau) plans for conducting the decennial census. For 2010, the Bureau intended to automate field data collection activities as a way to reduce costs and improve data quality and operational efficiency; however, testing uncovered several problems with its planned use of technology and the Bureau has now revised its plans. This statement focuses on the Bureau's efforts to redesign the 2010 Census, including 1) the Bureau's plans for conducting a paper-based nonresponse follow-up operation in 2010; (2) management of the Field Data Collection Automation (FDCA) program and its latest cost estimates; and (3) the status of the Bureau's integrated 2010 schedule, including milestones.

In March 2008, we designated the 2010 Census as a high-risk area, citing several long-standing and emerging challenges.[1] These challenges include weaknesses in managing information technology (IT), questions surrounding the performance of handheld computers, uncertainty over the cost of the 2010 Census, and the elimination of several operations from the 2008 Dress Rehearsal. In February 2008, the Director of the Bureau initiated a replanning of the FDCA program, a major acquisition that includes systems, equipment (including handheld computers), and infrastructure for field staff to use in collecting data for the 2010 Census. After analyzing several options to revise the design of the decennial, the Secretary of Commerce, on April 3, 2008, announced that the Bureau would no longer use handheld computers in its largest field operation, nonresponse follow-up—in which field workers interview households that did not return census forms. However, the Bureau would continue with the contract for the FDCA program to provide handheld computers for address canvassing—in which field workers verify addresses—and develop the information system for controlling the workload of all census field operations. The Bureau estimated that, along with updating its assumptions, the option of conducting a paper-based nonresponse follow-up but using handheld computers for address canvassing, would result in a cost increase of $2.2 billion to $3 billion over the previously reported estimate of $11.5 billion.

[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). See also GAO, *Census 2010: Census at Critical Juncture for Implementing Risk Reduction Strategies*, GAO-08-659T (Washington, D.C.: Apr. 9, 2008).

On April 15, 2008, the Bureau Director reported on the Bureau's ongoing efforts to address problems associated with the FDCA program and its plans to implement a paper-based nonresponse follow-up. In addition to announcing strengthened management planning and oversight, he reiterated that—from April 9, 2008 when the Director testified before this Committee—the Bureau would provide a detailed operating plan for its FDCA program within 30 days, including deadlines for key milestones, and the related paper-based nonresponse follow-up operation; in 45 days, the Bureau would develop an integrated project schedule for the 2010 Census; and, in 60 days, the Bureau would produce a testing program for the automated address canvassing operation.

Our testimony today is based on our past work, including our observation of the use of handheld computers in the address canvassing dress rehearsal, as well as the status of the Bureau's redesign efforts. In assessing the status of the redesign, we reviewed and discussed with Bureau officials documents, including plans for a paper-based nonresponse follow-up operation, related FDCA documents, and the 2010 Census integrated schedule. 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.

In summary, the Bureau has taken important steps to plan for a paper-based nonresponse follow-up operation, but several aspects remain uncertain. The Bureau's plan for nonresponse follow-up, released on May 8, 2008, details key components of the operation and its management. However, the plan envisions using an information system, to manage the field operation workload, which experienced significant problems when tested earlier in the dress rehearsal, and proposes new replacement mailing and late mail return strategies, which have not been fully tested. The Bureau has also taken several positive steps to address FDCA program management and oversight, but will need to reconcile the cost estimates from its own FDCA contractor and an independent government estimate, which differed by nearly $600 million. Finally, the Bureau's integrated schedule, dated May 22, 2008, identifies over 11,000 activities and milestones for the decennial. However, there is overlap in the testing and deployment schedule for the handheld device that will be used to collect address data in the field, and the integrated schedule also does not specifically define testing for key information technology systems (e.g. system, integration, and end-to-end). The Bureau also issued the 2010

Census Key Operational Milestone Schedule. This represents a higher level summary of about 175 key activities and is linked to the more exhaustive integrated schedule. However, there are several notable exceptions to this schedule of key operational milestones. For example, the schedule does not include a milestone for when testing of key activities related to nonresponse follow-up will take place. Such milestones are important because nonresponse follow-up is the single largest field operation and will not be part of a dress rehearsal. The Bureau recognizes that it could include a key milestone for nonresponse follow-up testing activities. We are currently reviewing in greater detail the summary and integrated schedule of milestones and the recently revised summary of program risks provided on June 4th.

Background

The Bureau has less than two years until Census Day. To ensure a successful census, sound risk management will be crucial, particularly given its scope, magnitude, and immutable deadlines of the census. The size of the decennial operation means that small problems can magnify quickly, and big problems could be overwhelming. For example, 60 seconds might seem like an inconsequential amount of time, but in 2000, if enumerators had spent just 1 minute more at each household during nonresponse follow-up, almost $10 million would have been added to the cost of the census. Further, sound risk management is important to a successful census because many risks are interrelated, and a shortcoming in one operation could cause other operations to spiral downward. For instance, a low mail response rate would drive up the follow-up workload, which in turn would increase staffing needs and costs. Of course, the reverse is also true, where a success in one operation could positively affect downstream operations. Nevertheless, rigorous up-front planning and testing, as well as risk mitigation plans, are the best ways to stave off problems. Finally, the census is conducted against a backdrop of immutable deadlines; the census' elaborate chain of interrelated pre- and post-Census Day activities is predicated upon those dates. To meet legally mandated reporting requirements, including delivery of population counts to the President on December 31, 2010, census activities need to take place at specific times and in the proper sequence.

Bureau Has Taken Important Steps in Planning for a Paper-based Nonresponse Follow-up Operation, But Much Remains Uncertain

On May 8, 2008 the Bureau issued its plans for conducting the 2010 Census paper-based nonresponse follow-up operation outlining key operational decisions. Among these is the need to develop an information system to manage the workload for a paper-based nonresponse follow-up operation and for additional field infrastructure, such as more telephones and computers to support this operation, to restructure the replacement mailing[2] and the removal of late mail returns from the nonresponse follow-up workload, as well as the need for cognitive testing of the enumerator questionnaire used to collect data from nonrespondents.

The contractor carrying out the FDCA program will develop the operations control system, which is designed to manage field operations that rely on paper as well as those that rely upon the handheld computers. The Bureau is particularly concerned about this system because when it was tested as part of earlier dress rehearsal operations—for example, during group quarters validation—it was found to be unreliable. As a result, the workload for these operations had to be supplemented with additional paper-based efforts by local census office staff, instead of electronically as intended. The operations control system is critical because it is intended to provide managers with essential real-time information such as enumerator productivity and the status of workload such as interviews conducted and remaining. Bureau officials said that the manual workaround was manageable for the dress rehearsal with just two local census offices; however, such a manual workaround would be nearly impossible to do when operations are carried out nationwide next year. Officials said that they expect to review computer screen shots of the operations control system reports it will use to manage the nonresponse follow-up operation in January 2009; however, the Bureau has not yet determined when and how testing of the operations control system before nonresponse follow-up, which begins in April 2010, will occur.

The Bureau will be using newly developed systems for integrating responses and managing nonresponse follow-up workload that have not yet been fully tested in a census-like environment. The Bureau's contract for the Decennial Response Integration System, designed to help identify households that have not yet returned census forms and to collect the results from enumerators conducting nonresponse follow-up interviews, will process each mail return and enumerator questionnaire and transmit

[2] A replacement mailing is a replacement questionnaire sent to households to remind and encourage them to return their census questionnaire.

to the FDCA program the number of questionnaires received. In turn, FDCA will manage the nonresponse follow-up workload, in part by removing initial late mail returns from the list of housing units requiring follow-up visits. Consequently, depending on time and cost considerations, Bureau officials believe that the Bureau must conduct, at a minimum, a small scale simulation of the integration and communication between the Decennial Response Integration System and FDCA for such aspects as load testing for a paper-based operation, and interfaces such as when the paper is processed by the Decennial Response Integration System and when the check-in status is transmitted to individual local census offices through management reports processed by the FDCA program. When or how these tests will be completed is not clear.

The Bureau's plans for nonresponse follow-up will also require changes in local census office infrastructure. The Bureau expects it will need additional hardware, including printing and scanning equipment, computers, and telephones. Further, the Bureau expects to scale the FDCA network to support a system for keying in large volumes of data related to hiring and payroll for over 700,000 field workers it plans to hire for the nonresponse follow-up operation. Previously, the Bureau expected to maintain field worker time reporting using the handheld computer. Also, the Bureau expected to hire fewer field workers.

The Bureau's redesign has also changed the replacement mailing strategy which will be used in 2010. The replacement mailing is a second mailing sent to nonresponding households. Testing has shown that a second mailing increases the overall response rate and reduces costs by increasing the number of returns that come in by mail, decreasing the need for census field workers to collect census data in person. Prior to the redesign, the Bureau planned to send second mailings to all nonresponding households that initially received the census form in the mail. However these plans changed, in part because, according to the Bureau, without using handheld computers for nonresponse follow-up, it would not be able to dynamically remove late mail returns—including those resulting from the replacement mailing—from the enumerator assignments on a daily basis. The Bureau had to devise a way to balance the time available to print replacement questionnaires with the time available to remove late mail returns from the paper-based nonresponse follow-up workload.

The Bureau now plans a multi-part approach. First, it will send approximately 25-30 million blanket replacement mailings to census tracts with low response rates, based on historical response rate data from 1990

and 2000 Census and the American Community Survey. As a result, all housing units in these selected census tracts would receive a second census form, regardless of whether or not they returned the initial form. Similarly, the Bureau plans to target a second mailing to an additional 15 million households in census tracts that are in the middle-range of mail response rates. Finally, the Bureau will not send a replacement mailing to households located in census tracts that previously had high mail response rates. This combination "blanket" and "targeted" mailing strategy is a new approach that will not be tested prior to the 2010 Census. If the replacement mailing does not function as planned, this strategy could confuse respondents in the blanket mailing areas and result in multiple responses from the same household that return both forms. It is instructive to consider that the Bureau's previous experience with a blanket second "replacement" questionnaire sent to all housing units located in the 1998 dress rehearsal sites caused a significant number of households with multiple responses. As a result, the replacement mailing was dropped from the 2000 Census design because the Bureau was concerned that it would have been overwhelming to process multiple census responses during the actual census.

Moreover, without the benefit of implementing nonresponse follow-up during the dress rehearsal, the Bureau will not know how well its new system for removal of late mail returns will work. While the Bureau encourages respondents to mail back their census forms quickly, some are not returned until the middle of April or later, after the nonresponse follow-up operation has begun. To reduce the cost of nonresponse follow-up and to minimize respondent burden, it is beneficial to the Bureau to remove these late mail returns from the nonresponse follow-up universe. Because nonresponse follow-up will be paper-based rather than conducted with handheld computers, the Bureau will remove late mail returns with the FDCA program prior to April 20 and manually thereafter; however, the recent Bureau plans provide only timelines for removing late mail returns and the Bureau has not yet finalized the workload estimates or how it will manage this work. Not having an opportunity to rehearse its strategy for removing late mail returns makes difficult any estimate of resulting workload.

In addition, Bureau officials said that it will be important to conduct cognitive testing of the questionnaire used by enumerators for nonresponse follow-up. With the change from using handheld computers, a paper questionnaire will be used by census enumerators in the 2010 nonresponse follow-up when making personal visits to housing units to collect census data. When developing this questionnaire, the Bureau plans

to draw upon its extensive research and testing of interviewer-conducted questionnaires developed for other censuses and surveys as well as lessons learned in Census 2000. According to its May 8, 2008 plans for conducting the paper-based nonresponse follow-up, the Bureau will conduct this cognitive and usability testing in early summer 2008 and the testing will address both respondent interactions and ease of use for the census enumerators. The Bureau expects the questionnaire will have space for up to six people as in Census 2000 and will link other household members to the address via a continuation form; include coverage questions; meet the Decennial Response Integration System data capture specifications; and collect data on the outcome of the enumeration.

Not being able to test the paper-based nonresponse follow-up in the 2008 Dress Rehearsal introduces risk because the dress rehearsal will no longer be a dry-run of the decennial census. While the Bureau has carried out a paper-based follow-up operation in the past, there are now new procedures and system interfaces that, as a result of its exclusion from the dress rehearsal, will not be tested under census-like conditions. We discussed the nonresponse follow-up plan with Bureau officials and they acknowledge the importance of testing new and changed activities of nonresponse follow-up as well as system interfaces to reduce risk. However, because plans have changed for many aspects of the nonresponse follow-up operation, Bureau officials are uncertain about testing and are still trying to determine which activities and interfaces will be tested and when that testing will occur.

It is important to note that the Bureau has taken some important initial steps to manage the replannning effort. For example, the Bureau has added temporary "action officers" to its 2010 governance structure. As of April 17, 2008, six action officers had been identified to achieve the six objectives in its Recovery Plan—nonresponse follow-up replan, reduce FDCA risk, improve communications, document decennial program testing, improve program management, and baseline an integrated schedule. Each action officer is assigned to one of the objectives. These action officers are intended to be catalysts, liaisons, and facilitators responsible for ensuring that the tasks and milestones for each objective are met. Also, the action officers meet with the Associate and Assistant Directors to facilitate quick decision-making and on a regular basis provide updates on the status of plans. Weekly, the Bureau's Director meets with the Department of Commerce's Deputy Secretary to discuss the status of the replan for the 2010 Census.

The Bureau has also issued documents that describe actions it will take to identify and manage risk. The Bureau's 2010 Census Program Management Plan, issued May 5, 2008, contains information about the risk management process and notes that 24 program-level or high level-risks have been identified, were currently being validated, and that each of these 24 risks would have either mitigation or contingency plans associated with them. However, according to Bureau officials, these 24 risks were associated with an automated operation and the Bureau had not yet developed risks related to the paper-based nonresponse follow-up operation. We requested information on these 24 risks, and on June 4, 2008, the Bureau provided us with an updated program-level risk document. The update now includes 25 program-level risks and identifies several risks related to the redesign including late design changes and testing. However, the Bureau has not updated project-level risks—which are risks specific to an operation or system—for nonresponse follow-up since the change to paper was announced. Once the Bureau provides project-level risk documents, we will assess the Bureau's actions to identify, prioritize, and manage risk for the replanned nonresponse follow-up operation.

Bureau Has Improved Program Management and Oversight, but Cost Estimates Need Timely Reconciling

The Bureau has taken steps to strengthen the FDCA program office leadership and expertise. The Bureau has recently assigned an experienced Bureau manager to manage the FDCA program office. According to the Bureau, the manager has extensive experience in directing major IT projects. The Bureau has also hired an outside IT expert, to provide advice and guidance to the FDCA program office. The Bureau has also implemented key activities to help improve management and transparency of contractor activities. Bureau officials have established a schedule for daily assessment meetings with contractor personnel; are conducting weekly status assessment and resolution meetings with the Deputy Director and Director; and are holding regular meetings with the Department of Commerce.

The Bureau has obtained cost estimates for FDCA from both Harris and MITRE, based on the recent changes to the scope of the program. In particular, these cost estimates include the January 16, 2008 requirements and the decision for a paper-based nonresponse follow-up operation. Harris is estimating that the revised FDCA program will cost roughly $1.3 billion; however, this cost estimate is preliminary and expected to be further refined.

At the direction of the Bureau, MITRE developed an independent government cost estimate in April 2008. MITRE's estimate is about $726

million, which is nearly $600 million less than the contractor's rough order of magnitude estimate. A comparison of the two estimates reveals significant differences in two areas: software development and common support. In particular, Harris is estimating that software development will be about $200 million greater than MITRE's independent estimate; and that common support will be about $300 million greater than MITRE's estimate.

- Software development ($200 million difference): MITRE officials noted that these differences could be attributed to different assumptions based on abnormal software development (such as starts and stops due to budget instability), labor rates used, amount of additional staff needed in order to maintain the schedule and to address quality and testing issues, as well as cost contingency reserves.

- Common support ($300 million difference): Although this program element contains the largest cost difference, MITRE officials noted that they could not identify the primary cost drivers that caused the gap. However, possible explanations could be cost contingency reserves that may have been built into the Harris estimate, labor rates used, unexpected high level of change management personnel resulting from budget and requirements changes, and other potential impacts on management resulting from program instability.

Harris had originally planned to deliver the cost estimate by August 20, 2008. However, the Bureau requested that this estimate be delivered sooner and Harris recently agreed to deliver this cost estimate by July 15, 2008. The Bureau and contractor plan to reconcile and agree to a final estimate by August 15, 2008. We plan to analyze the independent cost estimate and the Harris final estimate for the program. As part of this analysis, we intend to evaluate the methodology, as well as underlying assumptions, used to develop each estimate.

The Bureau needs to act swiftly to finalize the FDCA program's cost estimate and renegotiate the contract. In particular, it will need to have a final cost estimate from Harris in mid-July, and will need to reconcile this estimate with MITRE's independent estimate thoroughly and quickly to have a final cost estimate by August 15, 2008. Our body of work on the lessons learned on other major IT acquisitions, highlights the importance of establishing realistic cost estimates (through reconciliation of program and independent cost estimates), using fixed price contract techniques for low risk procurement areas, where appropriate, and establishing management reserve funds for unexpected costs. In moving forward, it is

important that the Bureau exercise diligence in finalizing the contract terms to ensure that the FDCA program is conducted in a timely and efficient manner for the 2010 decennial.

Bureau's Integrated Schedule Identified Activities and Associated Milestones but Did Not Address Risks and Costs

The Bureau designed its 2010 Census Integrated Schedule, dated May 22, 2008, to provide information on its schedule framework and activity-level design as well as to describe the program complexity and methods that the Bureau will use to manage the 44 interdependent operations, incorporating over 11,000 unique activities, to conduct the 2010 Census. The Bureau briefed committee staff and us on this final integrated schedule last week. Based on this briefing and our preliminary review of the schedule, we can offer some observations.

The integrated schedule does identify activities that need to be accomplished for the decennial and the Bureau establishes milestones for completing tasks. However, the schedule does not link those activities with associated risks nor does it capture the cost of operations. We previously recommended to manage the 2010 Census and contain costs, the Bureau develop a comprehensive, integrated project plan for the 2010 Census that should include risk and mitigation plans, updated cost estimates, and detailed milestones that identify all significant relationships.[3] We also observed that testing the handheld computer that will be used in the address canvassing operation—an activity we have previously identified as important in mitigating risks associated with use of new technology—overlapped with its deployment. Specifically, in describing the testing and integrating of handheld computers for the address canvassing operation, the schedule indicates that this activity will begin in December 2008 and be completed in late March 2009; however, the deployment of the handheld device for address canvassing will actually start in February 2009, before the completion of testing and integration. It would appear uncertain that the testing and integration milestones would permit modification to technology or operations prior to the onset of operations. Further, the Bureau's integrated schedule does not specifically define testing (e.g., system, integration, and end-to-end). Separately, the Bureau on June 6, 200 produced a testing plan for the address canvassing operation.

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

On May 22, 2008, the Bureau also issued the 2010 Census Key Operational Milestone Schedule. This represents a higher level summary of key operations and is linked to the more exhaustive integrated schedule. The Bureau identified about 175 activities that it considers key and that are used by senior management to oversee the 2010 Census. However, there are several notable exceptions to this schedule of key operational milestones. For example, there is no key milestone for identification of program and project risks in light of the significant change in planned operations, nor for developing necessary mitigation or contingency plans. Including key milestones for risk identification and mitigation in its high-level schedule will enable the Bureau to stay focused on activities which can directly impact the quality or cost of the 2010 Census. Nor does the schedule include a milestone for when testing of key activities related to nonresponse follow-up will take place. This is despite the fact that this represents the single largest field operation and will not be part of a dress rehearsal. The Bureau does recognize that it could include in its high-level summary schedule a key milestone for nonresponse follow-up testing activities. Further testing schedules for address canvassing and the operations control system also do not appear as key milestones, though they do appear in the detailed integrated schedule. Including these critical activities as part of the list of key milestones could ensure greater management attention, as well as help in focus oversight. We are currently reviewing in greater detail the summary and integrated schedule of milestones and the recently revised program-level risk document provided on June 4, 2008.

In summary, the Bureau has taken some important steps toward managing the changes it plans for conducting the 2010 Census. Yet much remains uncertain and in the absence of a full dress rehearsal, the risks to a successful decennial census are substantial. Risks are especially high for the 2010 Census nonresponse follow-up operation both because the Bureau will not reap the benefits of having a dress rehearsal for this key operation but also because it is changing its approach late in the decade. These make even more compelling the need for the Bureau to specify what tests it plans to conduct in the absence of a dress rehearsal and when such testing will take place.

The Bureau will also need to take several next steps to finalize the FDCA program's cost estimate. In particular, it will need to have a final cost estimate from Harris, as soon as possible, in order to have a sufficient amount of time to complete modifications to the contract by the end of the fiscal year. Our body of work on the lessons learned on other major IT

acquisitions, highlights the importance of establishing realistic cost estimates (through reconciliation of program and independent cost estimates), using fixed price contract techniques for low risk procurement areas, such as hardware, and establishing management reserve funds for unexpected costs. In moving forward, it is important that the Bureau exercise diligence in finalizing the contract terms to ensure that the FDCA program can be conducted in a timely and efficient manner.

Finally, the Bureau has developed a detailed integrated schedule of activities that need to be conducted during the 2010 Census and established milestones for completing them. It will be important for the Bureau to ensure that among the key milestones and activities that are highlighted for management and oversight are those that represent the greatest impact on the ultimate cost and quality of the 2010 Census.

Mr. Chairmen and members of the committee and subcommittee, this concludes our statement. We would be happy to respond to any questions that you or members of the subcommittee may have at this time.

If you have any questions on matters discussed in this testimony, please contact Mathew J. Scirè at (202) 512-6806 or David A. Powner at (202) 512-9286 or by email at sciremj@gao.gov or pownerd@gao.gov. Other key contributors to this testimony include Carol Cha, Betty Clark, Vijay D'Souza, Sarah Farkas, Richard Hung, Andrea Levine, Catherine Myrick, Lisa Pearson, Cynthia Scott, and Niti Tandon.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "E-mail Updates."

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are $2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office
441 G Street NW, Room LM
Washington, DC 20548

To order by Phone: Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm
E-mail: fraudnet@gao.gov
Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548

PRINTED ON RECYCLED PAPER

Chairman WAXMAN. Thank you very much.

Mr. Powner.

STATEMENT OF DAVID A. POWNER

Mr. POWNER. Chairman Waxman, Mr. Clay, Ranking Members Davis, Turner and members of the committee, thank you for holding this hearing. I have a few brief comments to make on the FDCA re-plan.

First, Commerce Department Executive Director Murdock and Mr. Jackson deserve credit for strengthening the FDCA program office leadership and governance. They have assigned a seasoned program manager to the FDCA program, hired an IT expert to help in overseeing the contractor and have improved oversight of and communication with the contractor.

In addition, their use of MITRE in evaluating FDCA costs and providing expert advice in other areas has greatly assisted in contractor oversight.

Regarding FDCA's costs, the difference between the Harris rough order of magnitude estimate of $1.3 billion and MITRE's independent estimate of $726 million raises significant questions and concerns. Starting with some history here, MITRE provided independent cost estimates on the FDCA program prior to contract awarded in April 2006 and again in the fall of 2007. Both of those estimates turned out to be roughly $20 million higher than Harris' estimates at that time. This is typical, as independent estimates are usually higher than program or contractor estimates.

We agree with Mr. Murray's written statement, which says we should not expend too much energy comparing the rough order of magnitude estimate to the detailed estimate and that the key comparison needs to occur after Harris delivers their detailed estimate on July 15th. I would like to stress that it is extremely important to have this estimate by mid-July to have ample time to analyze and reconcile the estimates and to explore all options. But given how MITRE and Harris estimates have been relatively similar over the past 2 years, to have a nearly $500 million to $600 million delta at this point in time is mind-boggling and makes no sense. These differences need to be reconciled. Moving forward, it is important that once Harris delivers their detailed estimate by mid-July that these estimates and their assumptions are completely understood and reconciled so the Government can explore all options and aggressively renegotiate a reasonable, revised contract cost for the FDCA program.

Mr. Chairman, thank you for your oversight and I look forward to your questions.

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

Dr. Providakes.

STATEMENT OF JASON PROVIDAKES

Mr. PROVIDAKES. Good morning. Thank you for the opportunity you have given to the MITRE Corp. to update the committee on the U.S. Census Bureau's progress in achieving successful 2010 decennial census.

Today I will focus on the progress since we appeared before this committee on April 9th. Accompanying me today is my colleague,

Dr. Glenn Himes, the executive director of civilian agencies at MITRE, plus enterprise modernization as well.

The MITRE Corp. 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 is a unique organization that assists the U.S. Government in scientific research and analyses, development and acquisition and/or systems engineering integration of large programs.

FFRDCs are established and designed for the purpose of engaging with Government, over the long term, to address these long-term, complex problems. FFRDC operates in the public interest with objectivity, independence, freedom from conflict of interest and full disclosure of their affairs to their respective Government sponsors. It continues to be our privilege to serve with the talented engineers and other professionals who support the Census Bureau in its efforts to prepare for the 2010 census.

We are pleased to report today that the Bureau has demonstrated substantial improvements in the last 2 months. In April 2008, the Director of Census Bureau asked MITRE to provide recommendations on how to improve the Bureau's management of the FDCA program. MITRE worked with the census leaders to define and implement a program improvement road map that consisted of plans, schedules and processes. Census assigned action offers to lead and be accountable for progress in each area. Each action officer developed milestones and reported status to the Director on a regular basis.

Although these activities began only 2 months ago, substantial progress has been accomplished. Census developed or updated its program management plan, its risk management process, its communications plan, a program testing plan and an integrated schedule over the past 2 months. An operations center and Web site are being developed to improve access to key program status and information for full transparency. Managers are responding quickly to requests for document reviews and approvals, which is creating a faster decision tempo. As a result, the Census Bureau has improved its ability to monitor and control its programs.

The decision to implement a paper-based non-response followup operation represented a major change to the decennial census that required substantial changes to existing plans. In only 2 months, census developed and delivered an operational concept that depicts the major steps in the non-response operations and highlights the related information flows. The documentation describing the reduction in scope for the paper-based non-response followup was delivered to the Harris team on schedule on June 6, 2008. Accomplishing these urgent activities was another major accomplishment for the Census Bureau.

Finally, based on a request from this committee, the Director of the Census Bureau asked the MITRE Corp. to update the estimated costs of the FDCA contract to account for changes, primarily reductions in the scope of the program. MITRE completed the update in May. Our estimate of the life cycle costs for FDCA is $726

million. This is substantially lower than the rough order of magnitude estimate of $1.3 billion provided by the contract of the Harris Corp. The assumptions behind our cost estimate and the general methodology have been reviewed by members of your staff, the Government Accountability Office, the Office of Management and Budget, the Department of Commerce, the Commerce Office of Inspector General and the Bureau of Census and the Harris Corp.

MITRE has high confidence that the program can be accomplished at the estimated cost. Although some of the check technologies that are relevant to the program have changed in the past 2 years, we believe technology is sufficiently mature to perform the program at the estimated costs. Our confidence in our estimate is not based solely on the maturity of our cost model. Our confidence is also based on our ability to develop a technical reference model that can be rapidly implemented of a proof of concept demonstration on a commercially available hand-held computer.

We remain committed to helping the Census Bureau overcome the current challenges to the FDCA program to enable a successful census. Thank you for inviting us to this hearing. We 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

June 11, 2008

2010 Census: Assessing the Census Bureau's Progress

Jason F. Providakes, Ph.D.
Senior Vice President and General Manager
Center for Enterprise Management
The MITRE Corporation

Table of Contents

1	Introduction	1
2	Improvements in Developing and Implementing Key Plans and Schedules	3
3	Updated Estimated Cost of the FDCA Contract	5
4	Preparation to Renegotiate the FDCA Contract	10
Appendix A	Acronyms	A-1

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 U. S. 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 are very complex and filled with risk. Because of this complexity, the Census Bureau requested MITRE assistance in 2004.

MITRE's support to the Census Bureau on its Field Data Collection Automation (FDCA) program falls into roughly four phases: preparation, cost estimation, independent assessments, and support. MITRE provided testimony on April 9, 2008 to this committee on the activities in each of the four phases. Today's testimony provides observations of the Census Bureau's improvements in managing the FDCA program by developing and implementing key plans and schedules, updating the estimated cost of the FDCA contract, and preparing to renegotiate the contract.

Improvements in Developing and Implementing Key Plans and Schedules: In April 2008, the Director of the Census Bureau asked MITRE to provide recommendations on how to improve the Bureau's management of the FDCA program. MITRE worked with Census leaders to define and implement plans, schedules, and processes. The Bureau has demonstrated substantial improvements in these last two months. Further details are provided in Section 2.

Updated Estimated Cost of the FDCA Contract: MITRE developed the original Independent Government Cost Estimate in April 2005. In April 2008, the Director of the Census Bureau asked MITRE to update the estimated cost of the FDCA contract to account for changes in the

scope of the program. MITRE completed the update in May 2008. The estimated costs are substantially lower than the rough order of magnitude (ROM) estimate provided by the contractor, the Harris Corporation. In spite of the significant difference between the IGCE and the Harris ROM, MITRE has high confidence that the program can be accomplished at the estimated cost.

Our confidence in our estimate is not based solely on the maturity of our cost model. Our confidence is also based on our ability to develop a technical reference model that we rapidly implemented as a proof of concept demonstration on a commercially available handheld computer. Further details are provided in Section 3.

Preparation to Renegotiate the FDCA Contract: The FDCA contractor, the Harris Corporation, is expected to submit its updated contract cost proposal by July 15, 2008. MITRE has been asked to participate in the evaluation of the revised cost proposal. This is described in further detail in Section 4.

2 Improvements in Developing and Implementing Key Plans and Schedules

Since April 2008, MITRE has helped Census leaders define and implement plans, schedules, processes, and initiatives. The Census Bureau has made substantial improvements to the management of its programs including:

- The development of a program improvement roadmap and the assignment of action officers to carry out specific activities.
- The initiation of an infrastructure assessment to determine the readiness and capability of the infrastructure provided by the FDCA contractor at the Local Census Offices and Regional Census Centers.
- The assignment of Census Bureau personnel to Harris locations to improve the transfer of critical knowledge. They are also referred to as "embedded personnel."
- The update of the FDCA Independent Government Cost Estimate. It is discussed in more detail in Section 3.

Program Improvement Roadmap. The Census Bureau recently initiated a roadmap for improvement comprised of six major activities. Census assigned action officers to lead and be accountable for progress in each area. Each action officer developed milestones and reports status to the Director on a regular basis. Although these activities began only two months ago, substantial progress has been accomplished, including:

1. **Improve Communications.** MITRE and Census are developing a Communications Plan that addresses both internal and external stakeholders.

2. **Reduce FDCA Risk.** The Census Bureau aggressively pursued a revised FDCA cost proposal from Harris by July 15, 2008 to use as the basis for renegotiating the FDCA contract. The Census Program Management Office (PMO) is completing an assessment of the FDCA software to determine the current condition of the software.

3. **Develop Program Testing Plan.** The Census team developed a catalog of test activities and a revised Program Test Strategy that is currently undergoing review. A new test plan for Address Canvassing was completed and is also under review. The plan includes embedding Census Bureau personnel at the developer sites, an activity that is already underway.

4. **Improve Program Management.** The Associate Director for the Decennial Census established the vision for a Census Operations Center. Both a web site and a physical Operations Center are being developed to provide access to key program information. A Program Management Plan was completed that included roles, responsibilities, and decision- making authority. Progress is being made on risk management. The list of program risks was updated, and regular meetings are being held to discuss the key

issues facing the program. Managers are responding quickly to requests for document reviews and approvals, which is creating a faster decision tempo. MITRE has actively contributed to the activities of the program management group.

5. **Update the Integrated Schedule.** The Census schedule group completed an update of the Integrated Schedule on May 22, 2008. A process was developed to monitor progress against the schedule on a weekly basis.

6. **Replan of the Non-Response Follow-Up Operation.** The team developed and delivered the Paper-Based Non-Response Operation (NRO) Group Operational Concept. This product depicts the major steps in the Non-Response Operations and highlights the related information flows. The work of this group formed the basis for the set of new requirements for paper based NRFU(Non-Response Follow Up) that were delivered to Harris on schedule on June 6, 2008. MITRE has been closely involved with these activities.

Infrastructure Assessment. Based on problems observed during the Address Canvassing (AC) dress rehearsal performed in May 2007, the Census Bureau identified risks associated with the FDCA infrastructure. MITRE was tasked by Census to independently assess whether the proposed infrastructure will meet Census performance needs during peak demand periods. A team of MITRE engineers has been reviewing design documents, visiting field locations, and developing a simulation model as part of the assessment of the proposed infrastructure.

Embedding of Census Bureau Personnel. The Census Bureau has begun embedding personnel at the Largo, Maryland development facilities. Similarly, Harris is providing personnel who are full- time at Census Bureau headquarters. These personnel have most recently assisted in the development of the new requirements for the paper-based NRFU operation along with personnel from MITRE.

3 Updated Estimated Cost of the FDCA Contract

On January 16, 2008, the Census Bureau delivered a final set of requirements for the FDCA program to the Harris Corporation. The Census Bureau requested a Rough Order of Magnitude (ROM) cost estimate by the end of the month to account for the additional requirements that were over and above the original contract scope.

On January 31, 2008, a joint Census and MITRE team completed a FDCA software architecture assessment that concluded: "Given the current Harris software development plan AND given the current scope, schedule, and budget turbulence, the team concludes there is a low confidence of successful implementation of paper and automated field operations."

On February 4, Harris provided the Census Bureau with the requested ROM, which represented a significant increase to the contract. Because of concerns about the program cost and performance, the Secretary of Commerce and the Director of the Census Bureau commissioned a FDCA Risk Reduction Task Force to examine program alternatives.

The FDCA Risk Reduction Task Force evaluated four program alternatives and their risks. The task force recommended, and the Director of the Census Bureau and the Secretary of Commerce accepted "Alternative 2", which included five key recommendations:

- Automated Address Canvassing provided by Harris
- Paper-Based NRFU Operations
- Operational Control System (OCS) for Paper-Based Operations, including a Paper-Based NRFU provided by Harris
- Single Regional Census Centers (RCC) network solution provided by the Census Bureau
- Census Coverage Measurement (CCM) Automated Instrument and OCS provided by Census Bureau.

Based on these changes to the FDCA Program, the Harris Corporation revised their ROM for the total contract cost to $1306 million (compared to the current baseline of $703 million).

On April 9, 2008, the House Committee on Oversight and Government Reform and the Subcommittee on Information Policy, Census, and National Archives held a joint hearing on the FDCA contract. During the hearing, Representative Clay stated:

> "Please, let me inject right here that we would like from you, Mr. Providakes (Sr. V.P. and General Manager of the MITRE Corporation), as well as GAO, a scrubbing of Harris' contract. We would like your analysis of just what the American tax payer is paying for."

Subsequently, the MITRE Corporation received direction from U.S. Census Bureau Director, Dr. Steven Murdock, to update the FDCA Independent Government Cost Estimate (IGCE).

The original IGCE was produced by MITRE in April 2005 to assist the Census Bureau in the initial planning and acquisition processes for FDCA. It served as a key data source and tool in the cost evaluation process for proposals from the contractors bidding for the FDCA contract.

The original IGCE was $620 million for the lifecycle of the FDCA program. All three proposals from industry were within a 10 percent margin of the MITRE estimate, including the Harris Corporation proposal of $595 million. Census awarded the FDCA contract to the Harris Corporation in March of 2006.

Since the time of contract award there have been several significant changes that impact the estimated value of the contract. These changes include:

- Engineering Change Proposals (ECPs) submitted by Harris and accepted by Census that modify the original scope of the contract.
- A set of requirements that were developed by the Census Bureau and delivered to Harris on January 16, 2008.
- The recommendation by the FDCA Risk Reduction Task Force and the approval by the Secretary of Commerce to revert to a paper based NRFU operation for the 2010 Decennial Census.

The IGCE is developed with the assistance of a sophisticated analytical model. The model was updated in two steps. First, the model was updated to reflect the current contract base of $703 million by adding the engineering ECPs that were approved prior to January 16, 2008. The second update included the changes from the January 16th, 2008 requirements and the Risk Reduction Task Force recommendations.

One purpose of this initial update was to represent the changes in program scope introduced by the ECPs. The other purpose was to "tune" the model using the Harris program performance during the first eighteen months of the contract. Additional adjustments were made to the inputs of the model to account for:

- The equipment at the LCO's (local Census offices) was increased based on input provided by the Census Bureau for this pre-NRFU replan time period.
- The award fee structure in the IGCE was changed to reflect Harris' proposed structure as presented to the Census Bureau in January 2006.
- Labor rates and equipment costs were reviewed and updated.

Table 1 summarizes the cost estimates based on the current contract base.

Table 1. Cost Estimates at Contract Award and After Approved Updates

Description	Estimates at Contract Award (April 2006)	Current Contract Base (December 2007)
Harris	**$596M**	**$703M**
IGCE	**$620M**	**$722M**

For the second step of updating the IGCE, MITRE updated the IGCE model to reflect the new requirements delivered to Harris on January 16, 2008 and the recommendations of the FDCA Risk Reduction Task Force. During briefings of the draft IGCE results, MITRE received feedback about the assumptions from Harris managers and engineers and from Census Bureau managers. As a result, the latest version of the IGCE reflects:

- The January 16, 2008 set of requirements.
- The recommendations of the FDCA Risk Reduction Task Force.
- Acceptance of ECP-11 for additional equipment at the Regional Census Centers.
- Additional program changes identified in February and March 2008.
- Comments received from review of the IGCE by Harris and Census Bureau managers
- Associated secondary impacts to help desk and other operations and automation
- Award fee updates
- Increases in the number of Local Census Offices (LCO) and the equipment in each LCO to account for increased workload caused by a paper-based NRFU.

The latest value of the MITRE IGCE is contained in Table 2, along with Harris' ROM and MITRE and Harris prior contract values and cost estimates.

Table 2. Cost Estimates Including Current Alternative

Description	Estimates at Time of Contract Award (April 2006)	Harris' Current Contract Base (December 2007)	Scope Updated to Reflect Current Alternative (May 2008)
Harris	$596M	$703M	$1,306M (Rough Order of Magnitude)
IGCE	$620M	$722M	$726M

MITRE met with representatives from the Government Accountability Office (GAO), who reviewed the IGCE methodology and results.

The major changes in the estimated contract costs for the IGCE from the Current Contract Base to the Current Alternative are contained in Table 3. It should be noted that the cost impact of the new requirements delivered on January 16, 2008 was relatively small.

It should be noted that the IGCE represents the estimated contract cost. MITRE estimates that the Census Bureau will require additional funding for a management reserve of $67 million. This is based on 10 percent of the base contract (excluding award fees) according to best practices for a complex information technology program of this size.

Table 3. Major IGCE Cost Changes

Contract Change	Cost Impact in IGCE ($Millions)
Reduced Number of Handheld Computers	**-130**
Removal of Census Coverage Measurement Software from Scope	**-7**
Reduction of Award Fees Percentages	**-8**
Increase in Help Desk Support	**59**
Increase in equipment in each Local Census Office	**40**
New and Modified Requirements	**17**
Inclusion of RCC Equipment	**13**
Miscellaneous Adjustments Based on Comments from Harris and Census	**13**
Increase in number of Local Census Offices	**7**
Total Cost Increase in IGCE	**4**

Note: Cost estimates are rounded to nearest million

The update of the IGCE was neither an audit nor a validation of the Harris ROM. Because the ROM was not provided with a full basis of estimate, it is not possible to deduce the causes of the differences. However, based on cost summaries provided by MITRE and Harris in a common framework for the Department of Commerce, the primary differences appear to occur in three cost categories:

Software Development	$199 million
Help Desk	$68 million
Common Support	$296 million

In spite of the significant difference between the IGCE and the Harris ROM, MITRE has high confidence that the program can be accomplished at the estimated cost. Although some of the technologies that are relevant to this program have changed in the past two years, we believe the technology is sufficiently mature to perform the program at the estimated costs.

Our confidence in our estimate is not based solely on the maturity of our cost model. Our confidence is also based on our ability to develop a technical reference model that we rapidly implemented as a proof of concept demonstration on a commercially available handheld computer. A technical reference model describes the standards and technologies that enable the development and implementation of a business application. The proof of concept was implemented to validate the power, maturity, and ease of use of readily available hardware and software components that comply with our technical reference model.

4 Preparation to Renegotiate the FDCA Contract

The Harris Corporation is expected to provide their updated contract cost estimate on July 15, 2008. MITRE has been asked to participate in the evaluation of the revised cost proposal. MITRE has a funded task order to assist the Director of Acquisition and the Associate Director for Decennial Census with review of the Harris cost proposal and to participate in the cost negotiations. The Associate Director has indicated that he will use the MITRE IGCE as one source of data during the review of the Harris cost proposal and the subsequent negotiations.

Appendix A Acronyms

CCM	Census Coverage Measurement
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
NRO	Non-Response Operation
OCS	Operational Control System
PM	Program Manager
PMO	Program Management Office
RCC	Regional Census Centers
ROM	Rough Order of Magnitude

Chairman WAXMAN. Thank you very much.

Mr. Murray.

STATEMENT OF MICHAEL P. MURRAY

Mr. MURRAY. Chairman Waxman, members of this distinguished committee, thank you for the opportunity to update you on Harris Corp.'s role in supporting the U.S. Department of Commerce and the Census Bureau in the modernization and automation of the 2010 decennial census.

In April, we reported to this committee on the status of the field data collection automation project for which Harris is providing contract support. At that time, we were working with the Census Bureau to address the next steps in this critical project. I would like to provide an update on our progress in supporting the most technologically advanced census in our country's history.

Together we are making solid progress toward the implementation of a fully integrated system for the 2010 decennial census. The Harris team is confident that based on progress to date, both the mobile computing environment and the office computing environment will be ready to support a successful decennial address canvassing operation. The dress rehearsal address canvassing conducted in April 2007 was a valuable field operational test. Some items worked very well. For example, the hand-held computers used in dress rehearsal were intuitive, secure and easily used by people with limited experience. Map spots were collected for over 500,000 addresses. The Harris team demonstrated the ability to successfully provide secure, over-the-air software upgrades during operations to correct problems and maintain operational effectiveness.

The dress rehearsal provided insight and feedback into areas where improvements were needed, which was the reason for conducting dress rehearsal. Since that time, Harris has worked closely with the Census Bureau to incorporate these needed improvements.

There are three key accomplishments that have been completed since the last hearing: the completion of the system requirements review, the completion of the detailed design review and the start of the production process for the 150,000 address canvassing hand-held computers. These milestones reflect the most recent progress and there are other important milestones that must be met in the coming months.

For example, by December of this year, just six short months from now, we must ensure that 150 early local census offices are in place and fully integrated into a nationwide census network in support of the decennial address canvassing operation. This is a milestone that will require tremendous cooperation and will mark a significant achievement toward the 2010 decennial census goal.

In recent weeks, there have been questions about the differences in cost estimates provided for this project. I would like to address these differences and explain how they arose. In January, Harris was asked to provide a rough order of magnitude [ROM], to project the total budget impact as a result of the updated requirements. Harris developed this ROM over a short, 2-week period.

In April, the Census Bureau tasked a separate contractor, the MITRE Corp., with developing an independent Government cost estimate model in response to the subcommittee's recommendation. There are significant differences between the ROM delivered by Harris and the estimate prepared by MITRE. However, the numbers projected separately by Harris and MITRE cannot be compared because they were based on independent assumptions. Harris is jointly working with the Census Bureau to develop a detailed proposal consistent with the requirements which will include the updated program costs. The updated program cost, developed with complete transparency, will be formally delivered to the Census Bureau in mid-July.

I would also like to note several positive changes that have taken place in the relationship between the Department of Commerce, the Census Bureau and Harris Corp. over the last 2 months that are making a difference in the long-term success of this project. Specifically, through enhanced communication and collaboration, we are making more timely decisions, elevating and resolving problems, and are setting the framework for a more structured program execution.

Finally, I would like to remind both the committee and our colleagues that we have a shared goal, and that is to ensure the 2010 decennial census is the most accurate, most complete and most secure in our Nation's history. We are grateful to Secretary Gutierrez and Director Murdock for their commitment in fostering commitment and collaboration. Time is of the essence, and we must focus on the important benchmarks and near-term milestones that we will need to meet in the coming months to reach that shared goal.

Mr. Chairman and members of the committee, I appreciate the opportunity to testify before you, and look forward to answering your questions.

[The prepared statement of Mr. Murray follows:]

HARRIS

Testimony
of
Michael P. Murray
Vice President – Census Programs, Harris Corporation

Joint Hearing
Oversight and Government Reform Committee
Information Policy, Census and National Archives Subcommittee
Wednesday, June 11, 2008
2154 Rayburn HOB
10:00 a.m.

Chairman Waxman and members of this distinguished Committee, my name is Michael Murray and I am the vice president of Census Programs for Harris Corporation. Thank you for this opportunity to update you on Harris Corporation's role in supporting the U.S. Department of Commerce and the U.S. Census Bureau in the modernization and automation of the 2010 Decennial Census.

In April, we reported to this committee on the status of the Field Data Collection Automation (FDCA) project, for which Harris is providing contract support. At that time, we were working with the Census Bureau to address the next steps in this critical project. I would like to provide an update on our progress in supporting the most technologically advanced census in our country's history.

Together, we are making solid progress towards the implementation of a fully integrated system for the 2010 Decennial Census. The Harris team is confident that, based upon progress to date, both the Mobile Computing Environment and the Office Computing Environment will be ready to support a successful Decennial Address Canvassing operation. The Dress Rehearsal Address Canvassing conducted in April 2007 was an invaluable educational and testing experience. Some items worked very well—for example, the handheld computers used in the Dress Rehearsal canvassing operation were intuitive, secure, and easily used by most people with little to no technology experience. Map spots were collected for over 500,000 addresses. The Harris team demonstrated the ability to successfully provide secure "over-the-air" software upgrades during operations to correct problems and maintain operational effectiveness, which will be of enormous

value during the Decennial Address Canvassing effort. We are building upon these successes as we move forward.

The Dress Rehearsal also provided insight and feedback into areas where improvements were needed, which, in fact, was the very reason for conducting the dress rehearsal. Since the Dress Rehearsal, Harris has worked closely with the Census Bureau to incorporate these needed improvements. Many of the issues that were documented during Dress Rehearsal were implemented in the March 2008 Non-Response Follow-Up Operational Test baseline. These changes have already been through extensive testing and have been demonstrated to Census.

Some of the key accomplishments that have been completed to date for Decennial Address Canvassing are:

- Completion of system requirements
- Completion of software requirements
- Completion of use cases
- Completion of Handheld Computer/Office Computing Environment screen and report mock-ups
- Interface Control Documents completed and submitted for Census approval
- System/Software Requirements Reviews (SRR) conducted
- Detailed Design Review conducted

These milestones are only the most recent in what has been an unparalleled record of achievement in the effort to modernize the Census for the 21st century, and there are more to come. For example, by December of this year—just six short months from now—we must ensure that 150 Early Local Census Offices (ELCOs) are in place and fully integrated into the nationwide Census network in support of the Decennial Address Canvassing effort. This is a milestone that will require tremendous cooperation and focus, and will mark a significant achievement toward the 2010 Decennial Census goals.

HARRIS

In recent weeks, there has been some question about differences in cost numbers provided for this project. I would like to address these differences and explain how they arose. In January, Harris was asked to provide a "rough order of magnitude" (ROM) projection of the total budget impact of the FDCA project, based upon what had been completed and what remained to be completed. Harris developed this ROM over a two-week period. In April, the Census Bureau tasked a separate contractor, the MITRE Corporation, with developing an Independent Government Cost Estimate (IGCE) model in response to the subcommittee's recommendation. There was a significant difference between the ROM delivered by Harris and the model prepared by MITRE. However, the numbers projected separately by Harris and MITRE cannot rightfully be compared, because they were based upon fundamentally different assumptions. To address this matter, Harris is jointly working with the Census Bureau to develop a detailed proposal, consistent with the requirements, which will include the revised program costs. The updated program costs, along with complete transparency throughout the process, will be provided to the Census Bureau in mid-July.

I would also like to note several positive changes that have taken place in the relationship between the Department of Commerce, the Census Bureau, and Harris Corporation over the last two months that are making a difference in the long-term success of this project. I am pleased to report that a renewed commitment to enhanced communication and collaboration on both sides is paying dividends, and the resolution of open items is occurring more rapidly. We are now holding weekly meetings of senior level team members to address emerging problems, and to identify potential problem areas to be addressed before they develop into larger issues. At this time, Harris has embedded teams of contractors working with Census Bureau personnel to ensure upfront, real-time communication and to minimize potential misunderstandings. The Census Bureau has done the same. We remain committed to ongoing efforts to improve communication with the Census Bureau at every level, as well as with other contractors, to ensure that the modernization of the 2010 Census unfolds with the highest level of efficiency and effectiveness.

Finally, I would like to remind both the committee and our colleagues that we have a shared goal, and that is, to ensure the 2010 Decennial Census is the most accurate, the most complete, and the most secure in our nation's history. We are grateful to Secretary Gutierrez, Director Murdock, and the men and women of the Census Bureau for their commitment to fostering cooperation and collaboration that will ensure the successful execution of this project. The 2010 Census is a massive undertaking, and the FDCA contract is only a small, but extremely critical component of this historic effort. Time is of the essence, and we must keep our focus on the important benchmarks and near-term milestones, that we will need to meet in the coming months to reach that shared goal.

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. Thank you very much, Mr. Murray. I thank all of you for your presentation to us.

In March, the Government Accountability Office designated the decennial census as a high-risk area. This came after years of warning from GAO about weaknesses in operational planning, contract management and cost estimation, among other issues. At our April hearing, the GAO witnesses warned that the redesign of the decennial census created new risks that the Census Bureau would need to manage. Asked about the specific risks that he would focus on, Mr. Powner listed stabilizing requirements for the Harris contract, managing the interfaces between systems, and the need for extensive testing.

Mr. Scirè and Mr. Powner, it has been 2 months since you flagged these risks at our last hearing, has the Census Bureau taken adequate action to mitigate these risks?

Mr. POWNER. Regarding the requirements, there has been a fair amount of work, and credit, as Dr. Providakes pointed out, is warranted here in the requirements area. I would refer to the requirements as stable now. There still will be some changes, but we are not in a requirements instability phase. So good progress there.

In regard to the interfaces and the testing, there is still a lot of work that remains. Those test plans need to be put in place, then ultimately the execution of those test plans are where the rubber is really going to meet the road, and we are going to see whether there is progress with actual data in hand.

So testing is still a major TBD.

Chairman WAXMAN. Let me ask a question more generally. What are the key risks still facing the decennial census as a whole, and what more would you do to mitigate them?

Mr. POWNER. There are several key risks. First of all, I think we need to come to agreement on the cost here. This wide range, I know we have a delta, we need the final estimate from Harris in mid-July, then really reconcile those differences, because there are opportunities to whittle that cost down from the $1.3 billion.

Going forward, schedule is the major risk. There is a lot to do with little time. So we are going to face schedule risks in all these areas, whether it is the technologies, and I will defer to Mr. Scirè to talk about getting the key operations in place.

Chairman WAXMAN. Mr. Scirè.

Mr. SCIRÈ. What I would add to that is, the key areas that we think need to be focused on are the non-response followup operations and the testing that they need to do to demonstrate that they will be ready to go forward with this paper-based operation. We don't yet see the specifics in terms of plans for how they are going to test or what sort of assurances that they will be providing for you, that they will be prepared to conduct non-response followup.

I would also draw attention to the operations control system, which is another deliverable for the contractor. And of course, that is the brains of the operation. It is used in all the different field operations. It has had some problems in its use in the paper-based operations that have been tested so far, where the field ended up having to work around and use manual systems.

So I think it important that we keep attention on the progress in getting the operations control system in place and for demonstrating that it will perform what is expected of it.

Chairman WAXMAN. Thank you.

Dr. Murdock and Mr. Jackson, would you care to respond? Do you agree that these are the key risks to the Decennial moving forward?

Mr. MURDOCK. Certainly these are very important risks that we are taking very seriously and making very concerted efforts to address them. I will let Mr. Jackson talk in more specific terms.

Mr. JACKSON. Mr. Chairman, the risks that were cited I think were cost, schedule and testing. Cost will be negotiated in the July 15th replan negotiations. We are very confident moving forward that we will be able to reconcile what might appear to be major differences. Now there are, as Harris Corp. pointed out, and MITRE, assumption differences that need to be reconciled. Our approach has been to not pre-negotiate or to negotiate in public but to take the MITRE information and to seek a fair price for the work we need when those negotiations ensue July 15th. I am confident that we will be able to do that.

Second, regarding schedule, schedule is tight. The decennial census process is typically done in the framework of a tight schedule. We are in the process, however, of developing contingencies and rapid decisionmaking, other tools and techniques to try to mitigate the risks of a tight schedule. But I would not deny that the schedule is tight and has gotten tighter as we have heeded GAO's recommendations and MITRE's to do more testing, which I think was the third risk mentioned.

In the whole area of testing, our testing program is targeted around the sequence of operations that need to be done. According, the address canvassing operation, which launches next April, we do have a test plan, and to date, the interfaces part of that plan has been completed. While we would prefer to have it all done, we will then proceed to non-response followup testing, which will start in January 2009. We are still, as was said earlier, working toward a firm end date.

I would just say, as a note on the non-response followup, when we remove the hand-held computer and return to a paper-based non-response followup, while the need for testing did not diminish, it certainly declined in terms of its importance, in a sense. We have done paper-based non-response followup many times, and that is just one point. The real point is that the remaining systems in non-response followup are very similar to the back-end systems that are in address canvassing. You have heard mention of paper-based operations. Well, that is what non-response followup is.

So the testing that is now left to be done of the automated systems will be done, it will be rigorous. However, we bear the benefit of those systems mirroring the systems that back up address canvassing.

Chairman WAXMAN. Thank you very much.

Mr. Davis.

Mr. DAVIS OF VIRGINIA. At the last hearing, talking to Mr. Murdock, the April 9th hearing record I think is unequivocally clear in pointing to the failure of the Bureau to identify, articulate

and deliver to Harris in a timely manner the requirements that were needed. Although the Bureau was turning to a paper-based system, there remained several technology aspects of the FDCA program that have yet to have all the requirements fully defined. At the last hearing, you indicated to this committee that the only FDCA requirements remaining were those having to do with the decision to revert to a paper-based NRFU. We have documentation that shows this is really not the case.

Why is it that the Bureau continues to change the NRFU requirements at this late date, after testifying that it wouldn't?

Mr. MURDOCK. When we look at these requirements, we see them, many of them, as clarifications. I think one of the great strides forward that we have had in the last couple of months is working out with the Harris Corp. our disagreements, if you will, our differences relative to how we evaluate specific aspects of our program. That is one of them. We believed at the time and we believe now that those are not new requirements; but rather, in many cases they were specifications or clarifications of the requirements.

Mr. DAVIS OF VIRGINIA. Isn't it reasonable to say the program remains in crisis until the requirements process is really wrapped up?

Mr. MURDOCK. We believe the requirements process is basically wrapped up. We provided the last set of requirements, and I think Mr. Murray would agree with us, we have basically clarified that and there are not questions out there, to any great extent, on differences in requirements.

Mr. DAVIS OF VIRGINIA. In most cases, you are still adding costs and changing the scope of the program by adding requirements, even if you define the requirements needs of the Bureau as only clarifications. Now, considering the increased costs and the expanded scope, do you agree that the amount of clarifications need to be kept to a minimum?

Mr. MURDOCK. We certainly are trying to stabilize the program to ensure that we all have a clear and consistent and agreed-upon road map going forward. I believe that is happening.

Mr. DAVIS OF VIRGINIA. What do you have in place to make sure that requirements, both new and clarifications, are kept under control?

Mr. MURDOCK. We have a very clear process of decisionmaking; we have created a management plan that requires that changes go through a change review process; and that process goes through several layers of decisionmakers to ensure that any changes that are made are absolutely essential. They end up on Mr. Jackson's desk, where he makes the ultimate decision regarding such potential changes.

Mr. DAVIS OF VIRGINIA. Why is it taking so long to finalize the requirements for address canvassing?

Mr. MURDOCK. We believe those are finalized. As I indicated a minute ago, there were disagreements about some of those, but we believe that process is basically completed now.

Mr. DAVIS OF VIRGINIA. Well, the dress rehearsal ended in June 2007. You supposedly had the final requirements identified in January 2008. But we are still negotiating requirements or clarifications. Given the amount of time from the dress rehearsal until

now, are you telling me now that we are through with the requirements, that this is the clarifications, that it is done as we sit here today? Or are there still clarifications and issues that we have not come to closure on?

Mr. MURDOCK. We believe that the requirements have basically been resolved to both of our—we agree to them and that we basically have resolved those issues and that we are today sitting at a place where we know jointly, ourselves and the Harris Corp., where to go, how to get there and are proceeding to do so.

Mr. DAVIS OF VIRGINIA. Let me ask the other participants, do you agree with that? Mr. Powner.

Mr. POWNER. Regarding the requirements, there were requirements delivered on January 16th and June 6th. Now, are they perfectly locked down? No. There are still some requirements that are trickling in. Our analysis of this situation——

Mr. DAVIS OF VIRGINIA. So the key word there is basically, meaning it is not done yet, right?

Mr. POWNER. There are still clarifications that are going on. I would refer to the requirements situation now as stable. There still are some changes going on, some clarifications, but overall where we have been, the requirements aren't perfectly locked down, but we are a lot closer. I think we are at a point now where we actually can move forward with a reasonable cost estimate from the Harris Corp. That is the way we view it. I know there are a lot of different opinions about whether these are new requirements or not. Our take on this is consistent with the Director's, that most of the discussion is around those January 16th requirements being clarified. I would not refer to those as new requirements, but they are just discussions that are ongoing to make sure they are well understood.

Mr. DAVIS OF VIRGINIA. Mr. Chairman, can I juste ask one additional question? For the Bureau, last week you unveiled a test planning for address canvassing, even though you have known about address canvassing problems since the dress rehearsal ended in June 2007. Why are we just now getting around to focusing on the problems of address canvassing?

Mr. MURDOCK. Among the reasons for re-addressing that issue is the task force and the expert panel that reviewed the assessment of the task force, and the task force had indicated that there needed to be supplementation of the testing program, not only in address canvassing, but in other parts as well. So we could not, until we had evaluated the suggestions of the task force, complete that testing program. We have done that in a very expedited fashion.

Mr. CLAY [presiding]. Thank you.

Mr. Murdock, I commend you and your staff for the hard work you have put toward getting the census back on track. At the April 9th joint hearing, the Bureau stated that it had not scrubbed the numbers provided by Harris in the rough order of magnitude. What are the Bureau's plans for verifying the cost estimate that Harris will submit on July 15th, and how do you plan to analyze the figures?

Mr. MURDOCK. We have done a number of things related to that. As you know, in accordance with really sound practices, just as we had had, before we let the contract, we had a cost estimate done.

We repeated that process and as you know, had MITRE complete an independent Government cost estimate for us to indicate what they thought of the reformulated program, what the costs were.

We have in turn obtained the services of a contractor that is an expert in the area of IT and in the costs related to IT. Mr. Jackson will in concert with such other professionals and processionals in our organization be taking the cost estimate, be taking the cost proposal as it is developed by the Harris Corp. and working toward a cost proposal and for a contract that we think successfully will get us to a successful census and that is appropriate relative to work to be done.

Mr. CLAY. Mr. Powner, to quote your testimony, you found that $500 to $600 million difference is mind-boggling and makes no sense. At the April 9th hearing, I requested that GAO analyze the cost estimate. I would like to make that same request today. What are your plans for verifying the cost estimate to be submitted on July 15th?

Mr. POWNER. We have been through the MITRE estimate in great detail, and once the Harris estimate is delivered, we plan to brief your staff on our findings on where the differences are and why we have differences. I can tell you right now that there are some different assumptions, and our written statement points this out, in the areas of software development and common support. There are different assumptions made on the amount of software development that needs to be completed between now and the 2010 census. And also, when you look at common support, there are differences in terms of the level and numbers of middle level management associated with the contract. So those are some areas that we are going to be focused on keenly.

Mr. CLAY. Thank you.

Mr. Murray, given the urgency of this matter, is there any way to complete contract negotiations before August 15th?

Mr. MURRAY. One of the key steps that we are taking in working with the Census Bureau is we have invited them in, and they have started to attend our actual proposal development. So they are participating in, day to day with us, reviewing our basis of estimates, and looking at the details that we are preparing. We have also worked with them to determine, developing more of a streamlined technical approach and technical proposal that can be provided, so that we can first meet the dates of July 15th. After July 15th to August 15th is the time to actually definitize. So in order to speed up the definitization process, the key thing that needs to be done is to make sure that you have that continued involvement up to July 15th, so that on July 15th when the proposal is submitted, there are no surprises to the Bureau.

We have followed that process on the MAF/Tiger program, where we worked the proposal jointly with the Census Bureau. We are trying to do that the same on the FDCA program. On MAF/Tiger, when we submitted a final proposal, it was close to accept as is. There were some questions and some clarifications that had to followup after we submitted it. But the actual definitization of that contract went very quickly, because we had side by side involvements throughout the process in developing the proposal. We are doing that today with the Census Bureau.

Mr. CLAY. Is that a yes or a no? Can you complete negotiations by August 15th?

Mr. MURRAY. Can we complete negotiations?

Mr. CLAY. Before August 15th, considering the urgency.

Mr. MURRAY. We can complete by August 15th.

Mr. CLAY. You said you are starting the production process of the hand-helds.

Mr. MURRAY. Correct.

Mr. CLAY. Does the Bureau know the functionality of the hand-helds and actually agree with Harris as it relates to the hand-held devices? Does the Bureau know what they are purchasing and do you know what the Bureau wants?

Mr. MURRAY. What I was referencing in my testimony is the actual production of the hardware device itself. The Bureau is aware of that. They have been engaged in the development of that device and they understand what they are getting with the hand-held itself. The next step, then, and what we are working on right now, is the actual software application that rides on top the hand-held. The hardware device itself is stable, and the high-tech computing corp is off procuring the material to go build those devices so we can get them in. The next challenge is completing the actual software development activity and the software application to ride on that hand-held to give the Census Bureau the user interface and the screens that they are looking for.

Mr. CLAY. And that will be completed when?

Mr. MURRAY. The hand-held device will be delivered in October.

Mr. CLAY. Thank you.

Mr. Turner, you are recognized.

Mr. TURNER. Thank you, Mr. Chairman.

Obviously I know that in all the recent hearings we have had, everyone has expressed just how disappointed we are that we have all come to this point. Millions of dollars have been wasted; the program has been placed at list. The Senate and the House have repeatedly held hearings. Our subcommittee, when I was chair, had numerous hearings. Our current chairman had numerous hearings. The full committee has had numerous hearings on it, the Senate the same thing, with the intent of trying to, with the help of the GAO, which has repeatedly laid out the to-do list or tasks that needed to be completed on trying to get this program back on track.

One of the issues, obviously, when you have a program that is going awry is to look to the issue of accountability. For accountability, you look for who is in charge. I have a question here that our staff has proposed.

In looking to the briefings that our staff has received, they have been told, and Mr. Murdock, you also today emphasize that the Associate Director in charge of the Decennial, Arnold Jackson, is the Bureau's single point of contact on resolving Decennial problems going forward. Yet our staff has concerns, because some of the information that they have received suggests that others in the Bureau may still be making significant changes to the field data collection automation program, without Mr. Jackson or around Mr. Jackson. Their concern goes back to what we saw when this pro-

gram really begin to go off track, and that was the issue of too many cooks in the kitchen.

So I have to ask, and I will start with Mr. Jackson, your thoughts on your ability to coalesce authority and what additional assistance that you might need or problems or areas where you see that perhaps we still might have too many people involved in the decisionmaking.

Mr. JACKSON. Thank you for that offer, Mr. Turner. I think in the last, I say 3 or 4 months that I have been involved at the head of the program I have been able to garner the support necessary from not only Director Murdock but from the Department of Commerce to make the decisions that need to be made as quickly as possible with the information that is needed. I would be the first to admit that we probably have fallen into a pattern of slow or bureaucratic decisionmaking.

I have, I think, instituted a different culture. I am in daily contact with Mr. Murray at Harris Corp., around issues, around requirements, such that we are able to, whenever possible, resolve matters frequently within 24 hours or less. That is not perfect, but we are, I think, moving in the right direction.

I am not sure who at the Census Bureau thinks that they are making decisions on FDCA that I am not aware of, but I am pretty confident that I have a structure in place to make sure that the responsibility and accountability is focused on me. I think there are several examples that Mr. Murray and I could give of decisions that are either pending or have been made, that I made with my staff in consultation in a very rapid and focused way.

Mr. TURNER. I appreciate that reassurance, because we are certainly looking forward to the effects of your leadership.

Mr. JACKSON. Thank you.

Mr. TURNER. Mr. Murdock, any comments?

Mr. MURDOCK. We have certainly increased management intensity substantially at the Bureau. Mr. Jackson, I am sure, hears from me more times a day than he would like sometimes. We are constantly in interaction. We have increased not only the number of meetings and the times that I meet with him and other people in his program, we have instituted a number of other actions and are briefed weekly, for example, by the MITRE Corp., which is embedded in many of our team processes throughout the FDCA program and other parts of the census to keep abreast of what is happening.

We are having substantial support from the Department of Commerce in this regard as well. I think our management team could not be working more effectively together than they are. It is very much a hand in glove operation with a single goal, and that is to produce an accurate and timely 2010 census.

Mr. TURNER. On that issue of chain of command, Dr. Providakes, could you please comment on that and also, Mr. Murray.

Mr. PROVIDAKES. Comment on?

Mr. TURNER. On the issue of chain of command and the census and your belief of its effectiveness.

Mr. PROVIDAKES. I am positive on the current program management structure and the decision processes which have been put in place in census. We talked about risks and concerns. We tend to

get hung up on, I think to date, on the requirements process. I agree with Dave Powner and company that the key requirements are stable and have been stable for some time. They are a set of clarifications which occur as part of not the requirement process but the development process. We seem to lose sight sometimes that there is a development process that needs to occur to come up with the design and implementation of that design to fill the capability. The clarification process is in fact not unique, it is natural, it should occur, it should occur regularly and should it be conceived or perceived as a cost dimension to the process.

So we have to transition from requirements process to development process, and that entails a close interaction between the Government side on the requirements and on the contractor's side as they begin to develop their design to go forth with an implementation.

Mr. TURNER. Mr. Murray.

Mr. MURRAY. I want to echo what Mr. Jackson said. I would agree with his comments, the collaboration and cooperation between Harris and census has significantly improved. Mr. Jackson and I probably communicate two, three, four times a day to include Saturdays and Sundays. We are working very closely together at the executive level.

At the working level team approach, we are working well together on that front as well. We have invited the Census Bureau to attend our cost reviews, our system requirements reviews, our detailed design reviews. The Census Bureau has invited us to attend their FDCA strategy session, so the cooperation and collaboration has improved significantly.

Mr. TURNER. Do our GAO panelists have any comment on this?

Mr. POWNER. We agree that the communication is improving. I think the decisionmaking pace, we are also seeing a quickening with that. As an example, there was one time we were talking about cost estimates coming in in the September timeframe. I think there was a push to move those dates up, so that we could renegotiate contracts sooner than later. That is one example where we see that pace quickening, and we just need more of that.

Mr. TURNER. Thank you.

Thank you, Mr. Chairman.

Mr. CLAY. Thank you.

The gentleman from Maryland, Mr. Sarbanes, is recognized for 5 minutes.

Mr. SARBANES. Thank you, Mr. Chairman.

Mr. Scirè or Mr. Powner, the decision to abandon the hand-helds with respect to the non-response followup, was that a result of testing or was that a result of other things that came up, making folks realize that it wasn't going to happen?

Mr. SCIRÈ. I think it is a result of the experience in the address canvassing operation where the Bureau knew, going back into June of last year, that there were concerns about use of the technology. There was also some concern, I think, at the time, when the risk reduction task force was looking at this as to whether or not the Bureau had confidence that Harris could produce a solution for non-response followup in addition to producing a solution for ad-

dress canvassing and the operation control system and field infrastructure. So I think it was a combination of those factors.

Mr. SARBANES. So the testing that is yet to happen, what are the possible outcomes of that testing? I guess they could range from concluding that the thing that you wanted to use, whatever technology is being developed for, that is not even going to work, right? That could be one result? What is the range of possible outcomes or conclusions that could come from the testing that is yet to happen?

Mr. SCIRÈ. There is testing that is yet to happen, both in terms of the address canvassing operation, but also in terms of non-response followup. So there are corrections that the Bureau could make to operations potentially, in both of those, to the extent they are able to simulate an operation. So far as the software and the performance of the systems and devices, there is still opportunity to make changes there as well. I would defer to my colleague in terms of the technology.

We talk about testing in the non-response followup operation. There are some things that the Bureau has not had a chance to rehearse, even though there are many things as a part of that operation they have done in the past. For example, they have never done a second mailing before. This is sort of getting into the operations. And the late mail return that they are going to be doing has not been tested in a dress rehearsal. So there is testing that we think they could do, or other ways that they might be able to provide you assurance that these operations, which are really going to be new in many respects for 2010, and in the case of late mail return, totally new, to assure that it will work.

Mr. SARBANES. I guess what worries me is that there is an absolute deadline.

Mr. SCIRÈ. Right.

Mr. SARBANES. So you can envision a situation in which, at a certain point, you just start throwing things overboard, because you know you have to meet the deadline. And you have to start cutting corners, based on testing or maybe you haven't been able to test something fully, so you decide either to throw it out or just go with it without having tested it fully and come what may. So that is what I think is producing high anxiety here, and the fact that testing and other things has been pushed back so far has contributed to that.

Let me go on. I am really interested in what the consequences are of not being ready. In other words, let's say we go into the census and we are only 80 percent ready when we started it and implemented it, or executed it. So what suffers? I would imagine that in the address canvassing portion of it, and in the non-response followup and other elements that we haven't even discussed, that the impact of it not being done well falls unevenly across the populations that you want to capture in the census. I am just guessing at that.

But I would imagine there are certain households that are easier to address canvass than others, and there are communities, constituencies, whatever it is, populations out there who, if the system is not fully developed and tested, will come away from the census

having been harmed in one way or the other. Of course, we know we use this information for all kinds of things.

So speak to that. What are some of the impacts of not being ready in terms of the ultimate information we are trying to collect? Who might suffer more than others?

Mr. SCIRÈ. The ultimate impact is that this could affect the quality of information, the quality of the count. It can affect the cost. And the Bureau tries to front-load a lot of its resources, so that in the event they need to throw more resources at an operation, it can. That is one risk mitigation technique that it is using.

But you only have a finite amount of time, essentially, to do the work. So if you are not able to get it done within that amount of time, that could have ripple effects on subsequent operations. It could affect the quality of the data that you are collecting. And you are right, there are certain areas that are easier to canvass, to understand what the addresses are. Communities where there is not a lot of change in either new construction or other changes, you might have a more stable address list. In other communities, that may not be the case.

The Bureau has worked over the decade to improve addresses and maps. So in some areas, especially that have changed, you may have a greater difficulty in those locations.

The non-response followup, some households are more likely to respond than others. So you are going to——

Mr. SARBANES. We always have this aftershock from the census where there are different communities that come in and argue that they haven't been fully counted as a result of the process, because of various factors that are at play. What I am worrying about is that we are increasing the potential for that to happen if we are not ready. Then you are going to get these communities coming in later, making the case, then of course the cow has left the barn there, whatever the expression would be, at that point. There is not a whole lot you can do to compensate adequately for it.

I have one real brief question. I just wanted to get a sense from the GAO, in terms of the intensity of focus, we were not very encouraged at the last hearing, has the Census Bureau now ramped up so that they are at 100 percent intensity in terms of what needs to happen between now and when this thing is executed? Or in your view, are they at 80 percent and need to get to 100? Or are they at 100 and have to stay at 100? Where would you say they are?

Mr. SCIRÈ. Let me just briefly answer in terms of the operations, then I will turn it over to my colleague in terms of technology. The one thing where we do think there needs to be greater attention, I realize that the NRFU operation is something that has largely been done in the past. But there are some things that have not been done, there are also interfaces with systems that were not used before, and that in fact are being developed right now.

So we think it is very important for the Bureau to be able to specify when it will complete and what it will do in terms of testing and other methods for assuring that operation will be ready to go, to get at your point about having sort of a drop dead timeframe. So we think that is very important for the Bureau to do.

We also think it is very important for the Bureau to take a close look at the risks that are represented under the revised non-response followup operation and reassess the project level risk of that operation.

Mr. POWNER. I would say they are 100 percent focused now. The question is execution. And on that focus, I think they deserve credit for seeking the help of others. MITRE has played a large role in this. They mentioned the IT expert, Mr. Ron Ponder, who they have hired. He has a lot of experience in the telecommunications industry, managing contracts. Those are all steps in the right direction.

So the focus is there. Now we just need to execute.

Mr. CLAY. Thank you.

Mr. Issa, you are recognized for 5 minutes.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. Murdock, do you agree that Congress has a lot at stake in getting an accurate decennial census?

Mr. MURDOCK. Absolutely.

Mr. ISSA. And do you agree that it is important for us to stay engaged, as an oversight committee, to that end?

Mr. MURDOCK. Yes, absolutely.

Mr. ISSA. And do you agree that an honest dialog between Members of Congress and the Bureau would be constructive to that end?

Mr. MURDOCK. It is.

Mr. ISSA. Then I would ask, even though I know you personally would not have the time to do every meeting, would you be willing to make sure that in your stead, a senior staff person is made available at the request either of the chairman or the ranking member of the full committee, on a bi-weekly basis, if requested?

Mr. MURDOCK. If requested, we certainly would provide someone, yes.

Mr. ISSA. I appreciate that.

Additionally, staying with sort of the same line, would you say that clearly, both by statute and by constitution, you have to get an accurate count at this 10 year mark?

Mr. MURDOCK. Yes.

Mr. ISSA. Would you also agree that since this is the 23rd that it has to be substantially as accurate and substantially similar in procedures of accuracy to the previous 22 counts?

Mr. MURDOCK. Our goal for every census, I think, is to ensure that we have as accurate a census as possible. So accuracy and timeliness are the two paramount virtues of the census.

Mr. ISSA. Thank you. If the Congress demands that the 2010 decennial census count every person living in the United States, any territory or possession of the United States or the Commonwealth of Puerto Rico and all Federal civilian and military personnel serving abroad, and that it is the sense of Congress that conducting the 2010 decennial census, the Secretary of State should use all legal and reasonable means to count every person living in the United States, any territory or possession of the United States, or the Commonwealth of Puerto Rico and the Federal civilian and military personnel serving abroad, if Congress demanded that, is that what you believe you would be doing as of today?

Mr. MURDOCK. Yes. Our goal is to provide a timely census and a complete census.

Mr. ISSA. Mr. Chairman, to that end, I would ask that House Resolution 1262 be considered tomorrow at the markup as a timely reflection of today's hearing, recognizing that at this late date it may be difficult. But I believe you will find the resolution which staff has is really consistent with what these many hearings have done. I will ask that in lieu of asking that excerpts of Groundhog Day be put into the record. [Laughter.]

Mr. CLAY. I will take a look at the resolution and then consult with Chairman Waxman about the schedule for tomorrow.

Mr. ISSA. Thank you very much. The groundhog part really got to you all, didn't it? [Laughter.]

It is interesting that we are back here again. To that end, let me ask probably the most important question for me, as a mid-term Congressman. I have been here 8 years, I expect to be here eight more, the Lord and the voters willing, particularly the latter, maybe. If the voters will, it could happen. So I would hope, in fact, maybe to be here long enough to see the next census.

But let me ask a question. If the statute were changed after this census to call for a perpetual equivalent—I come from industry. We long ago gave up doing inventory by closing the factory for 2 or 3 or 4 days at the end of every fiscal year, telling the workers to go home and just having inventory managers count. It wasn't very accurate, it was difficult and it was inefficient.

In your opinion, and I think it goes up and down, but if in fact we authorized and began providing the funds to convert to a perpetual census, and I know you do updates, but a perpetual census that allowed for a strategy of counts, obviously you might do an additional 10-year count to verify the accuracy of all the work you have done, but going to a perpetual count, so that the Census Bureau at all times was constantly updating, and at any time would have the highest level of accuracy it could have as a result of this perpetual, which is what we do in inventory, at least in the electronics industry, where I come from, would that be something that you believe Congress, with your help, should begin exploring?

Mr. MURDOCK. We would certainly need to have our legal people and others look at this. I don't know all the issues that might be there legally or constitutionally. Certainly many countries have equivalents of population registers, where there is a continuous registering of moves and supplemented by censuses. But certainly we would be interested in looking into that.

Mr. ISSA. Mr. Chairman, just a quick followup. I am assuming that we get over both the statute and constitutional hurdles, so that we in fact are not dealing with that part. But from a standpoint of your agency, continuous operation at a level where your work force is steady, substantially steady, where your constant canvassing of regions or however you are doing it similar, the equivalent to what we do in industry, the question is, is that a goal that is reasonable to get a world-class system, or do you believe we should stay with the do it once every 10 years, and quite frankly, reinvent the wheel every 10 years? That is really the question I would hope to get your thoughts on today. Because 12 years from now is very close.

Mr. MURDOCK. It is a goal that we have already implemented in part in terms of what we refer to as the long form, the detailed questions, income, education, etc. We developed the American Community Survey. This now provides ongoing data for small areas on annual basis. And as you probably know from using the census in previous decades, if you were using 1990 or 2000, what you found is that as you went on in the decade, those data on those factors became less and less applicable, because changes had occurred.

Certainly we have done that in this area. I think steps to be taken that would get us toward such data on the basic population issues would certainly be desirable.

Mr. ISSA. Thank you, Mr. Chairman.

Mr. CLAY. You are welcome.

The gentlewoman from New York, Mrs. Maloney.

Mrs. MALONEY. Thank you, Mr. Chairman, for holding this hearing, and Mr. Waxman and Mr. Davis, and for your vigilance over the management of the census 2010, which is just 22 months away. I have several questions really about where you personally stand, Mr. Murdock, on the directives from the Commerce Department to turn the census into a sweepstakes lottery, or plans to experiment with an internet response, and why the largely successful census in the Schools program from 2000 is being cut back.

But central to all of these questions is standards. I would like to focus on really, what are your standards in evaluating any changes. Basically, when you evaluate the census operations that will be added or changed in the coming months—we only have 22 months—and what scientific standards the Census Bureau has published or at least has in place to make a judgment on these changes.

For example, I have here an October 2006 decision memo from the Census Bureau on the evaluation process used to consider changes to the race question on the decennial survey. I ask unanimous consent to have it placed in the record.

Mr. CLAY. Without objection, so ordered.

[The information referred to follows:]

Attachment B

October 30, 2006

CONTENT DETERMINATION FOR THE 2010 DECENNIAL CENSUS PROGRAM

As one part of the 2010 Decennial Census Program, the Census Bureau must make its final content determinations for the 100-percent population and housing short-form questions by January 2007. This date is earlier than in prior decennial cycles for several reasons. Most importantly, in order to achieve comparability, the Census Bureau must use the same 100-percent questions in the American Community Survey (ACS), beginning with its 2008 data collection year, as will be used in the 2010 Census. Also, in keeping with the practice of good software development, the electronic instruments for both the 2010 Census and the ACS require earlier development. The Census Bureau accords strong importance to using the same questions in the 2010 Census as are tested in the 2008 Dress Rehearsal.

2010 CENSUS DECISION FACTORS

The Census Bureau used the following factors in making its content proposals for the 2010 Census. These factors are not ranked in order of importance, nor are they absolute. For most of the data items, this decision was not easy, but rather involved weighing competing decision factors.

The proposed content that follows is not the result of a mechanistic application of rigid factors, but rather reflects the Census Bureau's best judgment as a professional statistical agency. Distributions are discussed only to provide broad information about how the alternatives performed, as the test was not designed to allow inferences about the number or percentage of any population group. Additionally, the 2005 National Census Test (NCT) was a national mail test only and did not contain a content reinterview, so we were unable to validate responses. One must be careful in drawing conclusions about the total universe and about which distribution is superior.

> **Improvement, Not Just Change.** The Census 2000 questionnaire was a major redesign of prior forms. This redesign effort was successful; evaluations revealed that the Census 2000 questionnaire changes substantially improved the completeness of Hispanic origin and race reporting in the mail mode. The content testing program for the 2010 Census, in contrast, was designed to provide improvements to a form that was generally successful. Accordingly, changes to the Census 2000 questions should be based primarily on evaluations of test data that demonstrate improvement to the quality, completeness, and relevance of the data. Secondarily, some minor changes may be warranted to improve layout and meet space constraints. Maintaining continuity from 2000 to

2010 is important, and the Census Bureau will change a question only if there is clear evidence that the change will improve the results.

Maximizing Item Response Without Reducing Detailed Information. As a general rule, the Census Bureau should select questions that maximize item response, that is, include questions that produce lower item non-response rates. Maximizing item response is important because if the Census Bureau does not obtain a usable response, it must rely on recognized methods such as editing and imputation to supply the missing value. While editing and imputation are established and valuable procedures, the goal is to select questions that minimize their use while providing quality data.

Obtaining detailed population information is another important goal. It would not be advantageous to select questions that reduce item non-response if those questions also substantially reduce the level of detailed population information obtained from the 2010 Census.

Implementation Issues. Implementation issues, particularly related to layout and space constraints of the mail form, are of paramount importance in selecting the 2010 Census content. For example, planning for the 2010 Census assumes a short-form census, where all of the content fits onto a single sheet. Expanding the form into a booklet would greatly increase cost and has the potential to lower mail response. The ACS also has design limitations associated with its mail form.

Mode Consistency. In general, the Census Bureau should select versions of questions that can be adapted across all instruments (paper and electronic) and operations to collect equivalent information regardless of mode. Both the 2010 Census and the ACS will manage cost and quality by using multiple modes of data collection, including mailout/mailback, telephone, and personal visit. The Census Bureau issued draft "Mode Consistency Guidelines" in May 2006 with the goal to minimize differences caused by using various modes to collect data.[1] The guidelines recognize that achieving mode consistency may require adapting questions across modes.

Adherence to Pretesting Standards. The Census Bureau's July 25, 2003 standard, "Census Bureau Standard: Pretesting Questionnaires and Related Materials for Surveys and Censuses"[2] states: "When a key economic or socioeconomic indicator may be affected by a questionnaire

[1] "Mode Consistency Guidelines," Draft Issued for Internal Discussion, U.S. Census Bureau, May 3, 2006.
[2] "Census Bureau Standard: Pretesting Questionnaires and Related Materials for Surveys and Censuses," U. S. Census Bureau, July 25, 2003, p.6.

or procedural change, the Census Bureau recommends that an experimental field test be conducted to evaluate the effects of the proposed changes on survey estimates." The 2010 Census final content determination will be made largely on the basis of two large mail tests, the 2003 and 2005 National Census Tests.

Selection of an Entire Panel for Hispanic Origin and Race Questions. The Census Bureau's testing program has demonstrated repeatedly that even very small changes in questionnaire design for the Hispanic origin and race questions (e.g., format of the question or response categories, question order, wording, use of examples, instructions, etc.) can cause effects that are both large and difficult to anticipate. The 2005 NCT was designed so that the Census Bureau should select the Hispanic origin and race questions together and *in toto* from a single panel. The Census Bureau believes there is a significant risk in making even small revisions to the tested joint Hispanic origin and race questions, because we cannot accurately predict the full effect of any proposed changes.

2010 CENSUS PROPOSED CONTENT

This document is a summary of the Census Bureau's decision-making process, not a repetition of all test results. Readers are strongly encouraged to consult the evaluation reports for a more complete picture of the results of the testing the Census Bureau has conducted on the questionnaire.

The following sections summarize the Census Bureau's consideration of the foregoing decision factors in forming content proposals for the 100-percent population and housing short-form questions for the 2010 Census and the ACS. We examined the entirety of the test results; only statistically significant differences are discussed in this summary.

TENURE

Control (Census 2000 wording)

3. Is this house, apartment, or mobile home — *Mark ☒ ONE box.*

- ☐ Owned by you or someone in this household with a mortgage or loan?
- ☐ Owned by you or someone in this household free and clear (without a mortgage or loan)?
- ☐ Rented for cash rent?
- ☐ Occupied without payment of cash rent?

Alternative 1

3. Is this house, apartment, or mobile home — *Mark ☒ ONE box.*

- ☐ Owned by you or someone in this household with a mortgage or loan?
- ☐ Owned by you or someone in this household free and clear (without a mortgage or loan)?
- ☐ Rented?
- ☐ Occupied without payment of rent?

Alternative 2

3. Is this house, apartment, or mobile home — *Mark ☒ ONE box.*

- ☐ Owned by you or someone in this household with a mortgage or loan? *Include home equity loans*
- ☐ Owned by you or someone in this household free and clear (without a mortgage or loan)?
- ☐ Rented for cash rent?
- ☐ Occupied without payment of cash rent?

Alternative 3

3. Is this house, apartment, or mobile home — *Mark ☒ ONE box.*

- ☐ Owned by you or someone in this household with a mortgage or loan? *Include home equity loans*
- ☐ Owned by you or someone in this household free and clear (without a mortgage or loan)?
- ☐ Rented?
- ☐ Occupied without payment of rent?

Scope: The Census Bureau tested three versions of the tenure question. Each was designed to examine specific changes to response categories. In the first alternative, the use of "cash rent" was dropped from the two renter response options, since earlier research demonstrated that respondents commonly misunderstood the concept of "cash rent" because most rent is paid by check rather than cash (Hunter and DeMaio, 2004). The second alternative tested an added instruction to include home equity loans in the first owner response option, "Owned … with a mortgage or loan? *Include home equity loans.*" The Census Bureau used this approach to address concerns that respondents may not understand that a home should be classified as "mortgaged" if there is a home equity loan (Hunter and DeMaio, 2004). For the third alternative, both of the above treatments were included to determine any impact on the results when the changes appear together in a single question.

Findings: Alternative 1, which dropped the word "cash" from the renter response options, showed significantly less item nonresponse than the control. Thus, the evidence suggests that the word "cash" was confusing renters who typically pay by check. Also, significantly fewer housing units were reported as owned "*free and clear*" when a home equity loan instruction was included as in alternative 2. This instruction clarified for respondents that their property is considered "mortgaged" if a home equity loan is present. Alternative 3 also had significantly lower item nonresponse and reflected the improvements tested individually in alternatives 1 and 2. No implementation or mode consistency issues are raised with these alternatives.

Proposed Content: The Census Bureau's proposal for the tenure question is alternative 3. Alternative 3 appears to represent an improvement to the baseline.

References:

Cynthia A. Rothhaas, et al., "2005 National Census Test: Tenure, Relationship, and Age Report," U.S. Census Bureau, August 30, 2006.

Jennifer Hunter and Theresa DeMaio, "Report on Cognitive Testing of Tenure, Age, and Relationship Questions for the 2005 National Content Test," U.S. Census Bureau, November 22, 2004.

Attachment B

RELATIONSHIP

Control (Census 2000 wording)

2. How is this person related to Person 1? *Mark ☒ ONE box.*

- ☐ Husband/wife
- ☐ Natural-born son/daughter
- ☐ Adopted son/daughter
- ☐ Stepson/stepdaughter
- ☐ Brother/sister
- ☐ Father/mother
- ☐ Grandchild
- ☐ Parent-in-law
- ☐ Son-in-law/daughter-in-law
- ☐ Other relative — *Print exact relationship*

If NOT RELATED to Person 1

- ☐ Roomer, boarder
- ☐ Housemate, roommate
- ☐ Unmarried partner
- ☐ Foster child
- ☐ Other nonrelative

Alternative

2. How is this person related to Person 1? *Mark ☒ ONE box.*

- ☐ Husband or wife
- ☐ Biological son or daughter
- ☐ Adopted son or daughter
- ☐ Stepson or stepdaughter
- ☐ Brother or sister
- ☐ Father or mother
- ☐ Grandchild
- ☐ Parent-in-law
- ☐ Son-in-law or daughter-in-law
- ☐ Other relative
- ☐ Roomer or boarder
- ☐ Housemate or roommate
- ☐ Unmarried partner
- ☐ Foster child or foster adult
- ☐ Other nonrelative

Scope: The Census Bureau tested one alternative to the Census 2000 relationship question. Our objective was to clarify response categories, eliminate known sources of confusion with this item, and save space on the form.

The first response option, "Natural-born son/daughter" was changed to "Biological son or daughter" because earlier testing showed that adoptive parents had an unfavorable reaction to the use of the term "Natural born." From cognitive testing, the Census Bureau learned that some respondents misinterpreted the term by equating "natural" to births involving no drugs, and possibly excluding caesarian birth or in-vitro fertilization (Hunter and DeMaio, 2004). Also, some Spanish speakers misinterpret the term, "Natural-born" in English as "born out of wedlock." On other Census Bureau surveys, such as the Survey of Income and Program Participation (SIPP), the word "biological" is used already instead of "natural." Other terms also were changed for clarification. The phrase, "foster adult" was added to the "foster child" category to address changing living arrangements of adults receiving care in residential housing, since persons 18 years and older receiving such care were found to have reported themselves in the "foster child" category in Census 2000. The conjunction "or" replaced slashes (/) and commas (,) to clarify wording and improve the readability of the relationship categories.

The write-in space for the "Other relative" response option was deleted. Census Bureau coding experts have observed that a relatively large number of the write-in entries represented nonrelatives, data that could not be coded, duplicates of another response

category, or foreign language equivalents of English relationship categories already listed. Finally, due to questionnaire space constraints, the Census Bureau removed the spanner above the nonrelative categories that read "If NOT RELATED to Person 1:."

Findings: All of the above-described changes were tested together, so Census Bureau staff cannot determine which wording change or changes caused the observed response changes. No difference was observed in item nonresponse between using "Natural-born son/daughter" and "Biological son or daughter." This finding was contrary to the Census Bureau's expectation that the alternative response option would show slightly higher distributional totals than the category "Natural born" in the control version. Regarding the change to "Foster child or foster adult," the results were based on two groups -- individuals whose reported age was under 18 years and those with a reported age of 18 years and older. No significant difference in response distributions between the control question and the test version for the population under 18 years was found. The Census Bureau was unable to determine estimates for individuals 18 years and over in this response category because the cell sizes were too small.

One clear advantage from the changes to the relationship question was the reduction in multiple responses, which the Census Bureau thinks is attributable to removing the spanner above the categories of nonrelatives. Our findings showed a significant difference between the percentages of multiple responses occurring in the test version (0.1 percent) and in the control (0.3 percent). In the "high non-White or Hispanic stratum,"[3] the "Other relative" category without a write-in option showed a significantly higher number of responses than the control (2.4 percent to 1.6 percent, respectively). For the remaining changes in this question, no significant effect on reporting at the national level was found.

Proposed Content: The Census Bureau proposes the alternative, with a modification dictated by implementation issues. Space considerations for both the 2010 Census and the ACS mandate that the relationship question drop a response category. The Census Bureau chose to remove the response category of "Foster child or foster adult" because "Foster child" was the category with the fewest responses reported in Census 2000. The following question is believed to represent an improvement over the Census 2000 question.

[3] The samples in the test were allocated to two strata (High non-White or Hispanic Concentration and Low non-White or Hispanic Concentration) that reflect differences in the racial composition of the sample area. Twelve demographic/tenure groups were combined based on block level proportions to create the two strata.

Proposed Question

2. How is this person related to Person 1? *Mark X ONE box.*

Husband or wife	Parent-in-law
Biological son or daughter	Son-in-law, daughter-in-law
Adopted son or daughter	Other relative
Stepson or stepdaughter	Roomer or boarder
Brother or sister	Housemate or roommate
Father or mother	Unmarried partner
Grandchild	Other nonrelative

References:

Cynthia A. Rothhaas, et al., "2005 National Census Test: Tenure, Relationship, and Age Report," U.S. Census Bureau, August 30, 2006.

Jennifer Hunter and Theresa DeMaio, "Report on Cognitive Testing of Tenure, Age, and Relationship Questions for the 2005 National Content Test," U.S. Census Bureau, November 22, 2004.

SEX

Control (Census 2000 wording)

6. What is Person 1's sex? *Mark (X) ONE box.*

☐ Male ☐ Female

Alternative

6. What is Person 1's sex? ☐ Male ☐ Female

Scope: An alternative question about sex was tested to see if space on the form could be saved. The alternative did not include the instruction, "*Mark [X] ONE box*" and placed the response categories, "Male" and "Female" on the same line with the question itself. The instruction may have been a carry over from the 1990 Census intended to train respondents how to answer, since sex was the first item on the form requiring a filled circle.

Findings: The alternative had different results for Person 1 than for subsequent people in the form. For Person 1, there was a small but statistically significant improvement in the completeness of sex reporting. For Persons 2 through 6, the changes in the test version led to a significant loss of data. Some respondents may have overlooked the entire compressed, single-line item or the individual response categories if they extended beyond eyeshot of the vertical navigational path. The findings also showed that deleting the "*Mark [X] ONE box*" instruction did not lead to more respondents marking both response categories. About 0.05 percent checked "Male" and "Female" in both the control and test versions.

Proposed Content: The Census Bureau's proposal for the sex question is the control version, which places the instruction and the response categories on separate lines. The implementation (space) advantages of the alternative are outweighed by the fact that the control appears to produce more complete data.

Reference:
Elizabeth A. Martin, "Results of the 'Space Saving' Format Changes and Reversal of the Order of Age and Date of Birth Items," U.S. Census Bureau, October 23, 2006.

AGE AND DATE OF BIRTH

Control (Census 2000 wording)

7. What is Person 1's age and what is Person 1's date of birth?
Print numbers in boxes.

Age on September 15, 2005 | Month | Day | Year of birth

Alternative 1

7. What is Person 1's age and what is Person 1's date of birth?
Please report babies as age 0 when the child is less than 1 year old.
Print numbers in boxes.

Age on September 15, 2005 | Month | Day | Year of birth

Alternative 2

7. What is Person 1's date of birth and what is Person 1's age?
Print numbers in boxes.

Month | Day | Year of birth | Age on September 15, 2005

Scope: Alternative 1 of the age and date of birth question tested the addition of an instruction to direct respondents to report babies as age zero when the child is less than one year old. Earlier research showed that people do not think of their babies as having lived zero years, but rather report their babies' ages in months, weeks, or days (Spencer and Perkins, 1998).

Alternative 2 tested reversing the traditional sequence of the age and the date of birth categories to first obtain the person's month, day, and year of birth before his or her age on Census Day. This sequence is consistent with electronic data collection modes used in 2000 and planned for 2010.

Findings: For alternative 1, the findings, regardless of the presence of the babies' age instruction, showed that there was no difference in item non-response for reported age nationally or in the "high non-White or Hispanic stratum."[4] For the "low non-White or Hispanic stratum," the item non-response rate was significantly lower (0.3 percentage points) than from the control. For babies' who are age zero (based on their date of birth), it is important to note that the age instruction increased the reporting of age zero and decreased the erroneous reporting of ages 1 through 11. Also, item non-response for reported age zero was significantly lower with the age instruction included for babies' age zero (based on their date of birth). While the percent of babies with a reported age of zero was significantly higher with the babies' age instruction than without, distributions for the other age groups (ages 1-11, 12-24 and individual ages 1-11) did not change significantly.

For alternative 2, the findings showed that asking date of birth first led to small but significant improvements in all the date of birth items, with no statistically significant effects on the completeness or validity of reported age. Specifically, month, day, and year of birth are significantly less likely to be left blank when date of birth is asked before age. In the 1996 National Content Test, the results from the 1998 report by Spencer and Perkins favored the age-first sequence, although direct comparisons between the 2005 National Census Test and 1996 National Content Test are impossible due to differences in question format and statistical analysis.

Proposed Content: The Census Bureau proposes using alternative 1. While mode consistency would favor alternative 2 (because it has the same question order as electronic instruments), no individual alternative both reversed the age and the date of birth sequence and added the babies' age instruction. The Census Bureau, therefore, proposes including the age instruction to increase the accuracy of age reporting for babies and retaining the traditional sequence of age before date of birth. The Census Bureau expects substantive improvements in reporting age zero as a result of adding the babies' age instruction, while tests of both orders of the age and date of birth question included individually in alternatives 1 and 2 reflected good results.

References:

Elizabeth A. Martin, "Results of the 'Space Saving' Format Changes and Reversal of the Order of Age and Date of Birth Items," U.S. Census Bureau, October 23, 2006.

Cynthia A. Rothhaas, et al., "2005 National Census Test: Tenure, Relationship, and Age Report," U.S. Census Bureau, August 30, 2006.

Gregory Spencer and R. Colby Perkins, Jr., "The Effect of Different Question Formats on Age and Birthdate Statistics From the 1996 National Content Survey," U.S. Census Bureau, January 23, 1998.

[4] Op. cit., p. 6.

HISPANIC ORIGIN AND RACE

(NOTE: Facsimiles of the control and alternatives 2-6 appear at the end of this discussion.)

Scope: As discussed earlier, the content portion of the testing program for the 2010 Census was designed to refine the success achieved with the Census 2000 questionnaire. There was no overall effort, as was the case prior to Census 2000, to revise the Office of Management and Budget (OMB) standards on race and ethnicity reporting.

The Hispanic origin and race portions of the 2005 NCT involved a control and five experimental panels (alternatives 2-5). The major focus for the Hispanic origin and race questions in the 2005 NCT was to compare a two-question format (the Hispanic origin question, followed by the race question) with an experimental three-question format (a shortened Hispanic origin question, followed by a shortened race question, followed by a modified ancestry question). The modified ancestry question used in the alternatives with the three-question format was intended to elicit detailed information on all race and ethnic groups. The expectation was that the question could produce data that could be used for editing and imputation when the respondent left blank the questions on Hispanic origin and/or race. The Hispanic origin and race questions were designed and tested in tandem. The Census Bureau believes that these questions should be considered as a package, as small changes in one question may impact the other.

Other treatments included:

1) an expanded note to respondents that directed them to answer both the Hispanic origin and race questions and the statement that *"For this census, Hispanic origins are not races."*
2) changes to question wording and response categories (e.g., with and without examples of groups).
3) formatting differences (i.e., single- and double-banked response categories). In the three-question format, the Hispanic origin question included a "Yes" and "No" response option, and the question on race included the five minimum race categories (White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or Other Pacific Islander) required by the OMB as well as "Some other race."

The 2005 NCT tested four versions of the three-question format (alternatives 2-5). Alternative 2 included examples, while alternatives 3-5 did not. Examples were included to test whether respondents needed them to understand the categories in these shortened versions of the questions. Alternative 4 included an additional statement in the race question – "*For this census, Hispanic origins are not races.*" – designed to increase reporting in the OMB race categories. An introduction was added to the ancestry question to provide clarification of the intent of the question and to increase respondents' willingness to provide detailed information. Alternative 5 assessed the necessity of

having a separate American Indian or Alaska Native question to collect information on tribal affiliation and enrollment.

Recognizing that the experimental alternatives might not be successful, the 2005 NCT also included two alternatives that retained the convention from Census 2000 of a two-question series. Neither of these two alternatives was identical to the Census 2000 question; rather each is believed to represent an incremental improvement to Census 2000. The question wording of the control was slightly revised from Census 2000, and we considered this as the control because it was the closest to the Census 2000 design. The control included examples for the "Other Hispanic," "Other Asian," and "Other Pacific Islander" response categories. The 2003 National Census Test suggested that adding examples improved reporting of specific Hispanic origin and detailed race groups. Alternative 6 also included examples, an expanded note to respondents to answer both the question on Hispanic origin and the question on race, and changes to the instruction to the race question. Alternative 6 also included other changes intended to simplify and shorten instructions and formats.

The variations between the alternatives are complex and best summarized by the chart on the next page.

Attachment B

SUMMARY OF ALTERNATIVES AND TREATMENTS FOR HISPANIC ORIGIN AND RACE

TREATMENT	CONTROL	ALTERNATIVES				
	1	2	3	4	5	6
Two-Question Format						
Census 2000-style question	X					X
Note to respondents included only an instruction to answer both the Hispanic origin and race questions	X					
Note to respondents included an instruction to answer both the Hispanic origin and race questions and a statement saying that – *For this census, Hispanic origins are not races.*						X
Reordered Hispanic origin identifiers						X
Single-banked Hispanic origin response categories						X
Included instruction – *Mark [X] "No" if not of Spanish, Hispanic, or Latino origin.*	X					
Different race instructions – For Control: *Mark [X] one or more races to indicate what this person considers himself/herself to be.* For Alternative 6: *Mark [X] one or more boxes.*	X					X
Examples in Hispanic origin and race questions	X					X
Three-Question Format						
Shortened Hispanic origin and race questions combined with added ancestry question		X	X	X	X	
Examples in Hispanic origin and race questions		X				
Note to respondents included only an instruction to answer both the Hispanic origin and race questions				X		
Included a modified ancestry question with a narrative lead in				X	X	
Separate question for American Indian or Alaska Native tribe					X	

Findings:

Three-Question Format Versus Two-Question Format. In the 2005 NCT, the experimental panels with a three-question format generally obtained a higher rate of response to the Hispanic origin and race questions than did the two-question format. Alternatives 2-5, however, exhibited two major problems. The first was a loss of detailed information for Hispanics, Asians, and Native Hawaiian and Other Pacific Islanders. The second was a decrease in the proportion of all respondents reporting in OMB-recognized race categories.

A lower proportion of Hispanics reported a specific origin via the ancestry question in alternatives 2-5 than in the control. Hispanics failed to provide a specific Hispanic origin group more than 35 percent of the time in alternatives 2-5. By comparison, 93.5 percent reported a specific Hispanic origin in the control.

For the overall population, the response rate to the race question was high in both the control and alternatives 2-5, and no differences in the response rate to the race question were found between alternatives 2-5 and the control. There were higher percentages of "Some other race" respondents in alternatives 2-5 among the overall population, and they reported a detailed race group more often in alternatives 2, 3, and 5 than in the control.

There were more Native Hawaiians and Other Pacific Islanders reported in alternatives 3-5 than in the control, but these respondents reported a detailed race (e.g., Guamanian or Chamorro, Samoan, Fijian) less often in alternatives 3-5 compared with the control. Asian respondents reported a detailed race (e.g., Asian Indian, Filipino) less often in alternatives 2-5 compared with the control, although no difference in item response was found for Asians.

Two-Question Format Alternative. The control and alternative 6 differ from each other in multiple ways, making it difficult to determine which difference led to which result. Results, however, generally favored alternative 6 over the control in terms of obtaining more complete and usable data.

A larger proportion of Hispanics reported a specific Hispanic origin group in alternative 6 than in the control. A lower proportion reported "Some other race" in alternative 6 when compared with the control. The Native Hawaiian and Other Pacific Islander group is the only race group for which there is a statistical difference in the percentage who report a detailed race group.

Proposed Content: The Census Bureau's initial question was whether to select one of the alternatives with the two-question format or one of the experimental alternatives with the three-question format. While the three-question format shows promise in a number of areas, alternatives 2-5 all showed an unacceptable drop in detailed responses for the Hispanic, Asian, and Native Hawaiian and Other Pacific Islander groups. Additionally, alternatives 2-5 represent a substantial change from the successful Census 2000 content.

Without clear evidence of improvement, the Census Bureau does not believe it is appropriate to change the baseline content. This led us to focus on the control and alternative 6 as the two options for the 2010 Census. Some of the objectives for the 2005 NCT are relevant only in the context of alternatives 2-5: e.g., obtaining information on tribal enrollment and assessing the use of ancestry data for editing and imputation.

In choosing between the control and alternative 6, the Census Bureau first noted that both panels represent what we believe to be incremental refinements to the successful Census 2000 content. Decades of expertise in survey methodology and qualitative testing led us to prefer certain elements of alternative 6. For example, the identifier "of Hispanic, Latino, or Spanish origin" in alternative 6 is believed to represent a design improvement over the Census 2000 identifier "Spanish/Hispanic/Latino." Mode consistency is not a major factor in deciding between the control and alternative 6, but somewhat favors alternative 6 as space constraints in both the 2010 Census and the ACS will likely require single banking the Hispanic origin response categories on certain forms.

While the Census Bureau noted differences in distributions between the control and alternative 6 for both Hispanic origin and race, we do not believe these differences can be used to favor one over the other. Distributions are presented only to provide broad information about how the alternatives performed, as the test was not designed to allow inferences about the number or percentage of any population group. Additionally, one must keep in mind that the 2005 NCT was a national mail test only and did not contain a content reinterview that would have allowed validation of responses. One must be careful in drawing conclusions about the total universe and about which distribution is superior.

The control obtained a lower item non-response rate than alternative 6 to the Hispanic origin question; there was no difference between the control and alternative 6 for item non-response to the race question. However, the evidence did reveal differences in detailed reporting for both the Hispanic origin and the race questions. Hispanic respondents were more likely to provide detailed Hispanic origin groups in alternative 6 than in the control. Conversely, Native Hawaiian and Other Pacific Islander respondents were less likely to provide detailed information in alternative 6 than in the control. The two alternatives produced similar detailed reporting for Asians, and there was no statistically significant difference in the reporting of tribes. It appears, therefore, that alternative 6 will result in the collection of the largest amount of detailed information for the total population.

The Census Bureau proposes to use alternative 6 in the 2010 Decennial Census Program. We believe this alternative represents an improvement over the Census 2000 question series and best reflects the necessary balance between maximizing self-response and producing detailed information about Hispanic origin and race. This alternative meets operational considerations and can be adapted to maximize mode consistency.

References:

Eleanor Gerber and Melinda Crowley, "Report on Cognitive Testing of a Shortened Sequence of Hispanic Origin, Race, and Modified Ancestry Questions: Content Development for the 2005 National Content Test," U.S. Census Bureau, October 18, 2005.

Elizabeth A. Martin, "Results of the 'Space Saving' Format Changes and Reversal of the Order of Age and Date of Birth Items," U.S. Census Bureau, October 23, 2006.

Nicholas Alberti, "2005 National Census Test Race and Ethnicity Questions," U.S. Census Bureau, October 30, 2006.

Attachment B

Control (Census 2000-style w/ Hispanic origin and race examples)

➔ **NOTE: Please answer BOTH Questions 8 and 9.**

8. Is Person 1 of Spanish, Hispanic, or Latino origin?
Mark ☒ "No" if not of Spanish, Hispanic, or Latino origin.

- ☐ No, not of Spanish, Hispanic, or Latino origin
- ☐ Yes, Puerto Rican
- ☐ Yes, Mexican, Mexican Am., Chicano
- ☐ Yes, Cuban
- ☐ Yes, another Spanish, Hispanic, or Latino origin — *Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard, and so on.*

9. What is Person 1's race? *Mark ☒ one or more races to indicate what this person considers himself/herself to be.*

- ☐ White
- ☐ Black, African Am., or Negro
- ☐ American Indian or Alaska Native — *Print name of enrolled or principal tribe.*
- ☐ Asian Indian
- ☐ Japanese
- ☐ Native Hawaiian
- ☐ Chinese
- ☐ Korean
- ☐ Guamanian or Chamorro
- ☐ Filipino
- ☐ Vietnamese
- ☐ Samoan
- ☐ Other Asian — *Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.*
- ☐ Other Pacific Islander — *Print race, for example, Fijian, Tongan, and so on.*
- ☐ Some other race — *Print race.*

Two-Question Format

Alternative 2 (Shortened Hispanic origin and race (w/examples) and ancestry

8. Is Person 1 of Hispanic, Latino, or Spanish origin? *For example, Mexican, Puerto Rican, Colombian, etc.*

☐ Yes ☐ No

9. What is Person 1's race? *Mark ☒ one or more races.*

- ☐ **White or Caucasian** *(French, Scottish, etc.)*
- ☐ **Black, African Am., or Negro** *(Ethiopian, West Indian, etc.)*
- ☐ **American Indian or Alaska Native** *(Navajo, Athabascan, etc.)*
- ☐ **Asian** *(Asian Indian, Korean, etc.)*
- ☐ **Native Hawaiian or Other Pacific Islander** *(Fijian, Tongan, etc.)*
- ☐ **Some other race**

10. What is Person 1's ancestry or tribe? *For example, Italian, African American, Dominican, Aleut, Jamaican, Chinese, Pakistani, Salvadoran, Rosebud Sioux, Nigerian, Samoan, Russian, etc.*

☐ Don't know

Three-Question Format

Attachment B

Alternative 3 (Shortened Hispanic origin and race (w/o examples) and ancestry)

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
   ☐ Yes ☐ No

9. What is Person 1's race? *Mark ☒ one or more races.*
   ☐ White or Caucasian
   ☐ Black, African Am., or Negro
   ☐ American Indian or Alaska Native
   ☐ Asian
   ☐ Native Hawaiian or Other Pacific Islander
   ☐ Some other race

10. What is Person 1's ancestry or tribe? *For example, Italian, African American, Dominican, Aleut, Jamaican, Chinese, Pakistani, Salvadoran, Rosebud Sioux, Nigerian, Samoan, Russian, etc.*

☐ Don't know

Three-Question Format

Alternative 4 (Shortened Hispanic origin, race w/ instruction, and ancestry (w/ narrative lead-in)

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
   ☐ Yes ☐ No

9. What is Person 1's race? *Mark ☒ one or more races.*
   For this census, Hispanic origins are not races.
   ☐ White or Caucasian
   ☐ Black, African Am., or Negro
   ☐ American Indian or Alaska Native
   ☐ Asian
   ☐ Native Hawaiian or Other Pacific Islander
   ☐ Some other race

10. People in the United States are from many countries, tribes, and cultural groups. What is Person 1's ancestry or tribe? *For example, Italian, African American, Dominican, Aleut, Jamaican, Chinese, Pakistani, Salvadoran, Rosebud Sioux, Nigerian, Samoan, Russian, etc.*

☐ Don't know

Three-Question Format

Attachment B

Alternative 5 (Includes a separate American Indian and Alaska Native Enrollment Question)

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
   ☐ Yes ☐ No
9. What is Person 1's race? *Mark ☒ one or more races*
   ☐ White or Caucasian
   ☐ Black, African Am., or Negro
   ☐ American Indian or Alaska Native
   ☐ Asian
   ☐ Native Hawaiian or Other Pacific Islander
   ☐ Some other race
10. If Person 1 is an American Indian or Alaska Native, what is Person 1's tribe?

    Enrolled? ☐ Yes ☐ No ☐ Don't know
11. People in the United States are from many countries and cultural groups. What is Person 1's ancestry? *For example, Italian, African, Dominican, Jamaican, Chinese, Pakistani, Salvadoran, Nigerian, Samoan, Russian, etc.*

    ☐ Don't know ☐ Only United States

Three-Question Format

Alternative 6 (Modified Census 2000-style w/ revised respondent note and race wording, reordered Hispanic origin identifiers, and Hispanic origin and race examples)

→ NOTE: Please answer BOTH Question 8 about Hispanic origin and Question 9 about race. For this census, Hispanic origins are not races.

8. Is Person 1 of Hispanic, Latino, or Spanish origin?
   ☐ No, not of Hispanic, Latino, or Spanish origin
   ☐ Yes, Mexican, Mexican Am., Chicano
   ☐ Yes, Puerto Rican
   ☐ Yes, Cuban
   ☐ Yes, another Hispanic, Latino, or Spanish origin — *Print origin, for example, Argentinean, Colombian, Dominican, Nicaraguan, Salvadoran, Spaniard and so on.*

9. What is Person 1's race? *Mark ☒ one or more boxes.*
   ☐ White
   ☐ Black, African Am., or Negro
   ☐ American Indian or Alaska Native — *Print name of enrolled or principal tribe.*

   ☐ Asian Indian ☐ Japanese ☐ Native Hawaiian
   ☐ Chinese ☐ Korean ☐ Guamanian or Chamorro
   ☐ Filipino ☐ Vietnamese ☐ Samoan
   ☐ Other Asian — *Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on.* ☐ Other Pacific Islander — *Print race, for example, Fijian, Tongan, and so on.*

   ☐ Some other race — *Print race.*

Two-Question Format

Mrs. MALONEY. In this case, the Census Bureau made several decisions not to change the format of the race question. They made these decisions based upon criteria that was publicly shared and articulated in advance. Among the criteria listed in this memo are "Changes to the Census 2000 question should be based primarily on evaluation of test data that demonstrate improvement to the quality, completeness and relevance of the data. Change will improve the results," "adherence to protesting standards."

That last point is important. The Bureau insisted that no change to the questions should be implemented in the 2010 census unless the changes were tested in the field. Now, we have to stress that the standards used here were ad hoc standards. That is, they were created just for the evaluation of the race question. The Bureau was not using uniform, Bureau-wide, pre-established and debated standards. But at least they used some standards on this race question.

So my specific question, Director Murdock, is if the Census Bureau insisted on public, pre-set evaluation standards on the race question, what are your public established standards for evaluating the sweepstakes lottery and shrinking the census in schools program?

Mr. MURDOCK. Let me comment first on the specific programs that you have indicated. Those are both looking at incentives and looking at issues related to several other matters that have come from members of the Senate Oversight Committee. Senator Carper indicated an interest and asked us if we would look at this.

But whether we are looking at this or any other issue, we would use a clear set of factors. The first thing I think that a director, myself or any other one here looks at is, will this impact the two major goals of the census, and that is timeliness and accuracy. If we think that it does, then we look at it, then we obviously don't go forward after an evaluation has been done.

Within those, then we have to look at more detailed things, what does it mean in terms of cost, what does it mean in terms of schedule? Could it delay that census and key parts of that census, so that we couldn't interrelate the various processes successfully? We have to look at technical capabilities: are there things that we simply can't do in those, and we can't do because it will affect our two primary factors? And we have to look at regulatory requirements. Is there some way, for example, that what a certain process might do would impact Title 13 provisions and jeopardize the security that we provide to respondents in terms of what they are doing and what information we are providing from them?

So we look at these and make our decisions relative to those kinds of basic criteria. It is often a tradeoff of a variety of issues. These two are very much just in the basic evaluation issue. If you look, for example, at the incentives project, what we have provided to the point in this is to provide people from the Department of Commerce with our past studies. There have been several in past censuses. Personnel from the Department of Commerce are taking the lead in looking at some of these issues.

We will make that final decision and we will make that final decision on the basis of these kinds of criteria that I have just outlined for you.

Mrs. MALONEY. But basically my question is, with the race question, there were standards that were out there that we could look at and that scientists could look at. We haven't seen any standards or publicly established standards for the sweepstakes lottery and the census in the schools program. So I am very concerned that it doesn't appear that you or the committee have any standards to make these decisions, and we now have billions of dollars in increased costs with the likelihood of a less accurate census because of that.

Mr. MURDOCK. I obviously would not agree with your first premise, and that is that we have no standards, that we are not interested in——

Mrs. MALONEY. Well, then, could you give the committee the published, established standards for evaluating the sweepstakes lottery and the shrinking of the census in the schools program?

Mr. MURDOCK. I cannot at this point. But we do not, we will not go forward with those programs unless they are compatible with our other goals and the other decision issues that I laid out for you today.

Mrs. MALONEY. Basically when you make these decisions, you should have standards and they should be established and published, as you did with the race question. That is my point.

My time is up, I thank you, Mr. Chairman.

Mr. CLAY. Thank you, Mrs. Maloney.

Mr. McHenry is recognized for 5 minutes.

Mr. MCHENRY. Thank you, Mr. Chairman.

Thank you all for testifying today. We just, we have done this a number of times, a census in this country. It should be regular practice. But I think the concern for Congress is to make sure that everyone is counted. To that end, I just want to ask the Census Bureau, what are you doing to ensure that every individual is counted? In my State of North Carolina, the ramifications are pretty large. We could gain another congressional seat, whatever that means, but we could gain another congressional seat based on an accurate counting of the population. I would like to hear your thoughts, Mr. Murdock, Mr. Jackson, on how you are ensuring that is done.

Mr. MURDOCK. We have a variety of programs, as you know, our whole goal is that, to ensure that everyone is counted. Some of our key programs in this area are a communications program which is ensuring that everyone knows to the fullest extent possible what it is that, the importance of the census and responding to the census. Even more important is our partnership program, which involves the hiring of specialists to work, particularly with hard to enumerate populations, to go out and find mechanisms that will increase their confidence in responding to the census and their feelings of safety and security in doing so. These specialists work with thousands of local organizations, not just Government, but Government as well, in looking at options that will increase the count, to ensure that we get as complete a count as possible.

Mr. MCHENRY. To that end, Mr. Murdock, you had the dress rehearsal a year ago and it took a full year to address the problems that arose out of that dress rehearsal. Why the holdup?

Mr. MURDOCK. In general, I am not sure of which specific problem you are talking about. But certainly, the dress rehearsals are just that, they are ways that we test how we are doing and then from there, determine how we can streamline processes and do what we are doing more effectively.

Mr. MCHENRY. The schedule is tightening, is it not?

Mr. MURDOCK. It is.

Mr. MCHENRY. Do you foresee being able to get a full and accurate count by roughly the equivalent of the 2000 accounts, by the deadline?

Mr. MURDOCK. Our goal is to get absolutely the best count that we possibly can, and our goal is always to be as good as past censuses.

Mr. MCHENRY. Are you on schedule to do that?

Mr. MURDOCK. I believe we are getting back on schedule. Certainly we still have challenges, we have risks that have been laid out here today. But we are getting back on schedule and I am confident we are going to.

Mr. MCHENRY. So you are not quite back on schedule yet? So you are saying you are not on schedule but you are getting there?

Mr. MURDOCK. We have made some major steps in getting back on schedule. We are still challenged relative to the fact that we have a lot to do in a short period of time. I believe we can do all of it, and I am confident that we will make all our deadlines. I think what we are seeing today is a number of other groups here today that are seeing that the same way.

Mr. MCHENRY. What do you need from the Congress in order to get this done?

Mr. MURDOCK. I think we need your ongoing support in terms of our programs, our budget and things as we go forward in time.

Mr. MCHENRY. So is that financial? Do you need a larger appropriation to get this done?

Mr. MURDOCK. We have that addressed in materials that are before you, and that will be in subsequent budgets.

Mr. MCHENRY. OK. Going back, there is a, well, I would just mention this. UPS delivers an estimated 400 million packages a month. If you need some outside help, there are folks that actually know how to find houses in the private sector, and that have devices with which to track 4 billion packages a year. So what you are talking about is small in scope compared to a FedEx or UPS or a number of these other outside groups. Get some expertise in there. We have given you a substantial budget to do that.

Back to the question for the GAO, much of what is discussed at this hearing is about the cost estimates, and with the Harris Corp., who is here, and MITRE, about their various cost estimates. Harris accounted for $1.3 billion for the followup, those that don't respond. And MITRE said, I guess the update is $717 million. It looks like, to me, just the obvious thing is that they are comparing apples to oranges. You can't have a doubling using the same underlying premises and the same modeling.

Can you talk about the modeling? How is the modeling for these cost estimates? Is there a more accurate way that we can get a better cost estimate?

Mr. PROVIDAKES. Let me try to address that a little bit. I don't think it is comparing apples and oranges. You start with the requirements. We spent an exhaustive measure looking at what we believe are the key requirements, which we believe have stabilized. We took those, we took like you said, our commercial practices regarding our model, we took the last 2 years to assess the performance of the contractor, which is important to have as well.

We looked at technology maturity, which again has advanced over the last several years significantly in this area. And you combine all that, you end up with an independent cost estimate. This is not something new that we haven't done before. We have done it considerably many times in the past, and as the GAO has mentioned, you generally find these cost estimates to be on the high side. They tend to be conservative.

Mr. MCHENRY. Let me ask the GAO to address the question. At the end, I will give Mr. Murray an opportunity to respond as well. But if you could address the differences here. It looks like there are two different models. And I am not casting blame, I want to make sure that we have an accurate assessment.

Mr. POWNER. I think it is important to understand that the rough order of magnitude is a rough order of magnitude. What MITRE has is a detailed estimate. So the true comparison will occur once the detailed estimate is delivered from Harris July 15th. Then we can really look at differences.

But some of the areas that we know, and this is in our statement, that there are differences, if you roughly compare rough order of magnitude to the detailed estimate, it is in the software development and common support area. There are huge differences there, $200 million in software development and $300 million roughly in common support. We should not have differences that are that wide, even with the ROM. That is our professional opinion on that.

Hopefully, we will see that shrinking, once the detailed estimate is delivered by Harris.

Mr. MCHENRY. Mr. Murray, do you have any response to that?

Mr. MURRAY. I agree with Mr. Powner. Essentially, we clearly had different assumptions between our ROM and the MITRE model. Instead of going and vetting the differences between those two, we are really trying to look forward, we are working with the Census Bureau to develop a very detailed comprehensive cost proposal. We are going to provide complete transparency for them to have insight into that proposal. It will be delivered on July 17th, and GAO and MITRE are welcome to review that document as well.

Mr. MCHENRY. Thank you.

One final thing, Mr. Chairman, if I may, to Mr. Murdock. To followup on the partnerships that you have, are there programs—my district is largely rural, a large portion of my district is rural. What are you doing to ensure that rural areas are included in your partnerships?

Mr. MURDOCK. Rural areas are part of the partnership program. The partnership program isn't only an urban program, it is a rural program as well. So for example, the State that I am originally from, Texas, the partnership specialists have played a very impor-

tant role in the past census in getting to communities that were in very sparsely settled areas and to ensure that they get as accurate and complete a count as anyone in a larger, major city does.

Mr. MCHENRY. Thank you. Thank you, Mr. Chairman.

Mr. CLAY. Thank you, Mr. McHenry.

Ms. Watson, you are recognized for 5 minutes.

Ms. WATSON. I sincerely want to thank the panelists for the information you are providing us. Address canvassing is the first major operation of the decennial census, and one that sets the stage for the success of the census. If an address is not added to the master list during the canvass, the people living at that address will receive a census form, will not have an enumerator come to the door and could be left out of the count. So training for address canvassing begins, as I understand, January 2009. And address canvassing dress rehearsal last year revealed problems with the hand-held computers, as has been mentioned, help desk and other essential systems. These are needed to be fixed before April 2009, when the canvass begins.

Mr. Scirè and Mr. Powner, GAO has reviewed the problems identified in the address canvassing dress rehearsal and the Bureau's supposed solutions. I understand you are most concerned about the performance of the hand-helds and the compressed time line for software testing.

So what do you see as the key risks facing the Census Bureau with regard to address canvassing?

Mr. SCIRÈ. I think it is completing the testing plan that they have laid out and maybe being even more aggressive in the time line that they have established. One of the things we pointed out in our statement is that the timeframe that they lay out for integration and testing of the hand-held computers actually overlaps with the operation for address canvassing. Obviously we will want to complete that before the operation actually begins.

The time lines are very, very tight. So it is important for the Bureau to stay on top of this very vigorously to make sure that they are ready to go. There is another piece here, and that is the redesign for address canvassing is actually taking a dual track, if you will. For large assignment areas, the process will be different, or I should say large blocks, the process will be different. So we think it important that the interfaces and the linkages from the results from both of those operations are tested, and also that whatever sort of operational training or material or what have you that might be needed as a result of it, that's also tested and in place.

Ms. WATSON. Mr. Powner.

Mr. POWNER. I have nothing further to add.

Ms. WATSON. OK. Mr. Providakes.

Mr. PROVIDAKES. I don't think I would have a lot more. Again, I want to get back to this notion of the risks associated with the program and trying to converge on the development. You do have this large discrepancy between the cost differences that—I believe Dave Powner is correct—have to get resolved when the detailed costs come in from Harris. Your date you had mentioned regarding the time all this has to get done, we have to quickly close on this issue regarding the development of the hand-held. As we had mentioned earlier, August 15th doesn't give a lot of time after that if

there is a major issue regarding convergence on costs and performance associated with the contract negotiations.

Ms. WATSON. Are you suggesting moving that time up?

Mr. PROVIDAKES. I agree with the chairman, if you could move that time line up, it would be fantastic. The census has done great strides moving it up already. It was originally even later than that. Moving it to July 15th or 17th is great. By August 15th is cutting it very close. You look at the test plans and converging, and how you go forward to meet the deadlines of testing and integration, of the integrated schedule and so forth.

Ms. WATSON. Dr. Murdock, can it be moved up?

Mr. MURDOCK. We have pushed that up substantially. I think we are a place now where we have come to an agreement about when we can obtain the information that is necessary. We continue to push to get information from these sources in a timely manner. I think we are doing about as well as we can on this, I think we have pushed this a great deal and that we will expedite everything after those decisions to make sure we can meet the goals.

Ms. WATSON. I represent a State, California, and it is the first State in the Union that is a majority of minorities. I have somebody who sits on the Census Board who reminds me all the time that there are patches of, say, South Pacific Islanders that seem to get lost in the count. I know in parts of my district, I represent Los Angeles, Culver City, Hollywood, that area, parts of South Central, we always have a double digit under-count.

So how are we preparing with the new technology to be sure that we count people who might not be in the State through the proper channels, but they are there? Children are going to school. And I am concerned, I have to call the enumerators into my office every decade and say, did you go over the liquor store, did you go over the cleaners, did you go to the playground on Sunday when people come from Mass and they have all their children out there? Because an under-count means that we cannot qualify for programs based on certain populations and numbers.

So I am really concerned that we get it right this time. And anyone who would like to can comment.

Mr. MURDOCK. We certainly are very concerned as well. We recognize the kinds of difficulties that you are talking about. Our programs and our regional directors through the partnership programs and other aspects are certainly addressing these issues. But any help anyone can give us, if your office can help us in terms of identifying areas that we might otherwise miss, we would be glad to work with you to ensure that we get a complete count of all the people in your district if possible.

Ms. WATSON. Yes, we are going to work with you on this, because I want to be sure you are going to the places where people actually live. One person might come to the door, but there will be 12 people sleeping in those beds in that apartment. So I want to be sure that we do it correctly and accurately. Thank you very much.

Mr. CLAY. Thank you, Ms. Watson.

Mr. Providakes, given the gap in estimates, it might take some time for the Bureau and Harris to come to some agreement on the final costs of the contract. In your professional opinion, what dead-

lines should the Bureau set for final agreement and what criteria should the Bureau set for a decision?

Mr. PROVIDAKES. I think August 15th is an important period. You need to converge on the cost, schedule and performance associated with negotiation of the contract. That is an important time. We are in a situation where the schedule is fixed, there is cost in this performance and as the schedule continues to slip, you start sacrificing performance, as was mentioned earlier. At the same time, costs will continue to also increase.

Mr. CLAY. Considering the level of uncertainty surrounding FDCA, would it be prudent for the Bureau to have contingency plans?

Mr. PROVIDAKES. Most definitely. It is not so much, I think when you are dealing with risk, risk is about having options. The Bureau always has options in developing IT. That is an important dimension to have.

Mr. CLAY. What should Bureau officials include in the emergency plan, in the contingency plan to avoid irreparable damage from further contract delays?

Mr. PROVIDAKES. The set of options, clearly you need to look at, from the hand-held perspective, the viability of the technology and having in place what you can do in trading off performance. So there is a degree, what I can mention, there are key requirements that need to be captured and there are other requirements. The Bureau has already identified and prioritized those key requirements. As you go forward, if you decide that other options have to be put into place after August 15th, I think you could step back and look at the performance issues and what other vehicles do you have to provide the technology, in this particular case, a hand-held device that may be viable.

I know that from our perspective, helping us better understand the interpretation of those requirements and coming up with a cost estimate, we ourselves developed what is called a technical reference model, a design, and looked at the viability of that design that could be hosted on commercial hardware and commercial software best practices to better understand the degree of risk that the Bureau may be facing as we go forward.

Mr. CLAY. What was your conclusion from your test?

Mr. PROVIDAKES. This is not advanced technology, that is a myth. The technology is readily available today, to go forward with a hand-held device that would help augment, and as Director Murdock suggested, help the effectiveness and efficiency and accuracy of the count to get some of those issues. That technology, I think, is important to visit, and the technical reference model, as we have discussions with Harris in terms of their design. Understanding the difference in cost could be as simple as, one, do they understand the requirements from a contractor perspective, why the delta in costs, why they have those additional risks built into their costs, and perhaps the approach methodology that was used several years ago, there may be a way to modulate that to get us back in line based on cost, schedule and performance. That is part of the negotiation process that would occur once we have a detailed model between July 17th and August 15th that we can get together and really work through.

Mr. CLAY. I look forward to that. Thank you for your response. Mrs. Maloney, any more questions?

Mrs. MALONEY. Yes, thank you, Mr. Chairman.

Mr. Director, as you know, I wrote you yesterday, asking that you be prepared to answer some questions today on the issue of fingerprint. As you know, the census staff a few weeks ago said the decision was made to go ahead and plan to implement procedures to fingerprint all the temporary employees who were working the census at a cost of $340 million and run their prints through the FBI data base.

Then we were told that the decision was not made, and that it would be made by Commerce. And now we are told that the answer is yes, you are doing it.

In 2000, the Bureau asked and was given a waiver from the fingerprinting requirements, although all employees' names were checked, not just their fingerprints, because of the expense and the impact the procedures would have on the census operations.

So I have a few questions about this. Why was the decision just made last night—we are 22 months away from the census, and we could have used some planning. What were you waiting for, and what information from the 2000 was used to make this decision?

Mr. MURDOCK. Let me say in terms of the decision, I can't say why it wasn't made 22 months ago. I can say that there were details being worked out that have just come together. The decision was one that was recommended by the Bureau, to go to fingerprinting, and in turn, that the Secretary concurred with and has made a similar recommendation.

Let me explain a little bit the details of that, and why we are where we are. This is a very difficult process, it is a very difficult decision for a lot of reasons. One is that it is a costly process and we have been funded to look at this during this year and to come up with some alternatives on cost. So whatever you have heard in terms of cost, I wouldn't be tied to that particular figure. We are looking at different ways of doing the process.

But it is an expensive process. And some of the questions that you forwarded to me yesterday indicated, when you look into those, it would be very costly per individual, if the records of the 2000 census are correct. We find four cases, if you will, of Census Bureau employees that were accused of crimes and in all cases, our records show that either charges were dropped or they were acquitted in terms of those particular factors.

There was a lot more of our enumerators that were costed in a variety of ways in terms of the process. So from a cost standpoint, it is a difficult one. It is also difficult because we are concerned about the inhibiting effect of fingerprinting on obtaining the kind of work force that we need in some of the most difficult areas of the country to count. So both of these factors are there.

On the other hand, we have a prime responsibility to ensure the safety and the security of the American people. We have been advised by OPM that we should do fingerprinting. And although the Federal Bureau of Investigation has provided us with an indication that here are some ways that we could obtain an exception, they say they recommend that we do fingerprinting. I think it would be irresponsible for the Director of the census to leave to his or her

successor the issue of deciding not to do fingerprinting, when the implications of even that rare event occurring I think would be absolutely devastating to the census. One would find oneself, if you will, in front of a group trying to explain why you didn't do everything you could do to prevent that, particularly when it was the law of the land.

So we made this very difficult decision, I made this very difficult recommendation on the basis of balancing off those factors.

Mrs. MALONEY. As you know, many of us have been strong supporters of your budget, so I would like to ask a few questions about the budget. Yesterday, Mr. Director, OMB sent up to Congress a budget amendment for fiscal year 2009, apparently asking for an additional $546 million for census to begin to cover the increased costs of doing the census using paper and not the hand-held for non-response followup. Mr. Director, how much did you ask for? Did you ask for more than $546 million? How much did you ask for?

Mr. MURDOCK. This amount that we received we believe is sufficient to address the needs that we have. It will allow us to do the very important things that you are aware of in terms of the new redesigned and remodified census. It is an amount that we believe will be successful.

Now, where the uncertainties are, for example, are that this, as we go forward, what we have to rely on in terms of contractor costs, because we have not yet renegotiated the contract, is we have to use those from the previous ROM analysis. So those will obviously be changed. They will obviously be different when we go forward.

But we believe this is a budget that will get us what we need and will be successful.

Mrs. MALONEY. Did you get all that you requested? That is my question. How much did you ask for? They sent $546 million. Did you ask for more?

Mr. MURDOCK. That is the increase that we received, yes.

Mrs. MALONEY. But did you get all you requested? How much did you ask for in your budget request?

Mr. MURDOCK. I would have to check the exact details. We obviously, I don't think, in a budget process, one never gets everything that one asks for.

Mrs. MALONEY. That is true, but I think as an oversight committee, we are entitled to know what you felt you needed and I think you should go back to the office and send us the information.

Mr. MURDOCK. I will be glad to provide that information.

Mrs. MALONEY. Because maybe we want to fight for what you thought you needed in your budget request.

Mr. MURDOCK. We will certainly provide all appropriate information that you desire.

Mrs. MALONEY. And are there any operations that you needed to fund which were not fully funded or were not funded at all?

Mr. MURDOCK. One of the aspects of our budget that I think is very important to understand is that we were provided with a large contingency aspect to our budget. In that, one of the things that we will need to address if we decide to go forward with the process that is beyond the very specified level of $10 million for fingerprint

is we will have to take out of that contingency. That contingency, however, is a large one, $200 million, and it is one that we think is sufficient to address the issues that are likely to confront us.

Mrs. MALONEY. Given the state of the census and planning, do you think that request is enough funds to fix what is wrong with the census and to ensure the accurate 2010 census is at least as accurate as 2000?

Mr. MURDOCK. We believe it is. There is the uncertainty, which I specified before, of what we will end up with in terms of the final contract price. If it goes in the direction that it might go, I think that will make it easier for us. But certainly that is a major uncertainty that we will only know as we get through the contract negotiation process.

Mrs. MALONEY. My time is expired, and I join my colleagues in thanking all the panelists for this really very important job that you are undertaking and for your testimony today. Thank you.

Mr. CLAY. Thank you, Mrs. Maloney.

Ms. Watson.

Ms. WATSON. Thank you.

Finally, we want to see this the most accurate and complete census as we go into a new decade. Is there any reason why you cannot tell us at this moment the amount of money that was appropriated to you? Because as my colleague just mentioned, we would like to be as helpful as possible. That is why we are having this hearing, and that is why all the panelists are here. We want to be sure that the new technology that we have invested in actually gives us the most positive, complete and accurate results possible.

Is there any reason why you can't round off a figure that you know has been appropriated?

Mr. MURDOCK. As I said, I don't have the figure right in front of me. We will give you all appropriate information that——

Ms. WATSON. Wait a minute. You are the director, Dr. Murdock.

Mr. MURDOCK. Yes.

Ms. WATSON. And we have been asking questions about timetables and are you ready and so on. We are just here to be helpful to you. Give me a round figure.

Mrs. MALONEY. Will the gentlelady yield?

Ms. WATSON. I would yield.

Mrs. MALONEY. I believe, my dear colleague, that the budget director is sitting behind him. Maybe he has the number. Would it be appropriate for him to answer? I yield back the time to my colleague.

Ms. WATSON. You know, I can't understand the mystery with all this unless Commerce said, don't answer them. So would you like to, budget director, would you like to comment?

Mr. TYLER. There were internal discussions within the administration——

Ms. WATSON. Beg pardon?

Mrs. MALONEY. Could you come to a mic? We can't hear you.

Mr. TYLER. My name is Jay Tyler. I am the Budget Director. There were internal deliberations within the administration. The number that we received, the increase in terms of the amendment for 2009 was $546 million.

Ms. WATSON. Mic, please.

Mr. TYLER. The number that has been requested in the amendment is $546 million. I think really what is in question right now is the final number, once we go through contract negotiations with Harris. I believe that the Census Bureau is comfortable with that $546 million.

Ms. WATSON. Are you comfortable with it, Mr. Murdock? Can you get everything done in time?

Mrs. MALONEY. Excuse me, will the gentlelady yield?

Ms. WATSON. Yes, I will yield.

Mrs. MALONEY. How much did you request? How much did you ask for? We know the budget amendment was $546 million. But how much did you ask for? That is the question we are asking.

Mr. TYLER. The Census Bureau asked for $738 million.

Ms. WATSON. Oh, OK.

Mrs. MALONEY. Seven hundred thirty-eight million. OK. Thank you. I yield back to my colleague.

Ms. WATSON. Thank you so much. I think that sheds some light. You are shorted $200 million, plus or minus. Can you get everything done?

Now, I know this is internal politics over there in the Department of Commerce. But come on, all of you were sworn in. Let us know. Can you, with the amount, $546 million, really do the job?

Mr. MURDOCK. I believe the answer is yes, given the ongoing contract negotiations that we have going with Harris. This is the figure that we settled on with OMB. And we think we can do it for this amount of dollars.

Mrs. MALONEY. Will the gentlelady yield?

Ms. WATSON. I would be happy to yield.

Mrs. MALONEY. I believe what my esteemed colleague is trying to get at, and what we are trying to understand is, we want to help you do a good job. So we want to know specifically, what did you ask for in this $700 million request, and what the difference is. Did you have a program that you wanted to implement that they did not fund? Maybe the budget director can answer, and I yield back to my esteemed colleague. Specifics.

Mr. MURDOCK. The majority of it, the vast majority of it, was a reduction in the amount that had been initially budgeted for the Harris contract. The vast majority of it. I would have to look to see exactly, but it is nearly all of it.

Ms. WATSON. Reclaiming my time. I ask this often of people who work in various agencies. If you could get what you really needed, blue sky it, don't worry about our budgeting, what would you really need? And I don't think—I think you are underselling what you really need. If you asked for over $700 million and you only got a little over $500 million, then there is a gap. So can you respond?

Mr. MURDOCK. I would agree in normal circumstances that would be the case. In this case, where we are today, is with a situation where we have a large difference between an independent Government cost estimate and a ROM from the contractor. These are large differences, as everyone has pointed out. Where we end up in that contract makes a great deal of difference on whether or not the funds that we have are adequate. We have had to do this budgeting process with these uncertainties.

Now, do we wish we did not have these uncertainties? Yes, we do.

Ms. WATSON. OK. I just wanted to know if you were, Dr. Murdock, pushing for the maximum amount that you think you are going to need, negotiating with contractors——

Mr. MURDOCK. Let me tell you that——

Ms. WATSON. Let me just finish, because I want to put it out there—to do the job. I am concerned in my own State of 38 million people, growing by 2,000 every day, that we have the best count that we can ever have taken this new decade. And I say, just blue sky it. I know all of the problems with the budget, and I know probably what your directions were, don't tell them a thing.

But what would you like to see?

Mr. MURDOCK. Let me make two points clear.

Ms. WATSON. Please.

Mr. MURDOCK. One is that I am pushing for every single thing, because I want us to have a successful census.

Ms. WATSON. Thank you.

Mr. MURDOCK. Second, if we find ourselves needing assistance, if we find ourselves needing additional money, we will be pushing that process as well.

Mrs. MALONEY. Will the gentlelady yield?

Ms. WATSON. I would be pleased to yield.

Mrs. MALONEY. Possibly it would help the committee members and the chairman in our oversight responsibilities if we could request the document, the original request that was sent in, the $700 million. I know you don't have it with you today, but could we have that as part of the committee record? I yield back to my esteemed colleague from the great State of California.

Mr. CLAY. All time has expired. There are two key dates that this committee looks forward to with growing anticipation, July 17th and August 15th.

Let me thank the entire panel for their testimony today. We will await further action.

This hearing is adjourned.

[Whereupon, at 12:08 p.m., the committee was adjourned.]

○